B.R.E.A.T.H.E. — Anxiety Management in Teachers

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Author Note

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Abstract

The aim of this quality improvement project is to achieve a sustainable and feasible reduction in anxiety among kindergarten through 12th grade schoolteachers through the integration of deep breathing exercises. Anxiety, a universal condition, markedly contributes to burnout across professions. In Arizona, the surge in teacher burnout and unfilled vacancies, worsened by mass shootings and COVID-19, underscores the urgency for attention in the educational sector (Kirkland, 2023). The project addresses this pressing issue by utilizing the social cognitive theory, which provides a framework for understanding how individuals' beliefs, attitudes, and behaviors are influenced by social factors. Participants (n=8) were recruited from a school in the Central region of Arizona. The project adhered to ethical guidelines and protocols established by ASU IRB. Informed consent was obtained from all participants and measures were taken to ensure confidentiality and anonymity through data collection and process. Recruitment was obtained via convenience sampling. Methods involved two-minute deep breathing exercises twice a day for two weeks. The Generalized Anxiety Disorder-7 (GAD-7) Likert scale was used to assess anxiety pre- and post-intervention. Data analysis employed bivariate descriptive statistics on the Intellectus ™ platform. The significant two-tailed paired samples t-test result t (7) = 2.57, p = .037, indicates a noteworthy difference between the mean Pre-Anxiety Total Score and the mean Post-Anxiety Total Score. Consequently, the null hypothesis, suggesting no difference between the two scores following intervention, is rejected. This suggests a statistically significant reduction in anxiety levels from pre- to post-assessment, with the Pre-score significantly higher than the post-score. Cohen's d = 0.91 indicates a strong effect on the outcome variable anxiety, aligning with previous studies highlighting intervention efficacy. Deep breathing exercises show a strong correlation with anxiety reduction, particularly

in K-12 schoolteachers. This intervention stands out as a practical and cost-efficient treatment, supported by compelling evidence for long-term anxiety reduction.

Keywords: School teachers, grade school educators, mindfulness, breathing exercises, anxiety, GAD-7

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Anxiety, a condition that impacts individuals irrespective of age, gender, race, or financial status, has emerged as a significant contributor to the rise of burnout across various professions, including education. Addressing and managing this multifactorial condition presents numerous hurdles, encompassing peer and workplace aid, access to mental and medical insurance, as well as cultivating effective coping mechanisms.

Problem Statement

In recent times, there has been a surge in stress, anxiety, and depression among children and teenagers in our school systems. This surge has prompted numerous changes, driven by factors such as COVID-19 and the rise in mass shootings, including heightened security measures and the adaptation of online schooling. However, amidst these challenges, there has been insufficient attention given to the well-being of educators. Many of these stressors have brought upon necessary changes and adjustments to the learning experiences which directly impacts staffing ratios as overall healthcare for the employee. A study reported by the National Centers for Education Statistics reported that the COVID-19 pandemic attributed to staffing shortages in all our nation's schools (Press Release, 2022). Additionally reported were over 9,600 teaching positions open in Arizona for the 2022-23 school year, and after one month 27% of teaching positions have yet to be filled (Orly, 2022).

Numerous concerns voiced by students and families revolve around the inconsistent nature of their education, which can largely be linked to the well-being of educators. Jotkoff (2022) reports that 90% of National Education Association (NEA) members are experiencing burnout and feel under-supported in addressing their mental health issues. In handling the well-

being challenges facing educators, we must implement effective strategies to manage the growing anxiety, particularly among grade schoolteachers.

Purpose and Rationale

Anxiety, a pervasive condition, significantly fuels burnout across various professions. In the context of Arizona, the escalating rates of teacher burnout and unfilled vacancies, exacerbated by the impacts of mass shootings and the lingering effects of COVID-19, highlight the pressing need for focused attention within the educational sector (Kirkland, 2023). Notably, Arizona holds the unfortunate distinction of having the nation's highest teacher turnover rate, recording a staggering 19% annually in 2013 (AZ Central, 2013). This alarming statistic underscores the critical importance of addressing the challenges faced by educators in the state.

The purpose of this paper is to address the increase and management of anxiety noted by our school educators. Through the process of guided breathing exercises associated with mindfulness-based therapy, it is the hope to achieve a reduction in the anxiety our educators face daily.

Background and Significance

Anxiety

The term *anxiety* can be described as a normal sense of apprehension, or an unpleasant feeling regarding a certain situation or person. According to the Diagnostic and Statistical Manual of Mental Disorders (DSM-5) it is an anticipation of a future event exhibited by symptoms that include increased muscle tension, vigilance, headaches, chest pain, or even stomach issues (American Psychiatric Association [APA], 2022). This is quite common in most individuals and can often be caused by stressors such as family relationships, careers, financial or school stress. Anxiety disorders can be categorized into distinct mental disorders, which include

(1) panic disorder, (2) agoraphobia, (3) specific phobia(s), (4) social anxiety disorder or phobia, and (5) generalized anxiety disorder (Sadock et al., 2015).

Anxiety disorders constitute one of the most prevalent categories of psychiatric disorders, as noted by Sadock et al. (2015). The National Comorbidity Study revealed that one in four individuals met criteria for at least one anxiety disorder, with women comprising 30.5% compared to men at 19.2% (Sadock et al., 2015).

An important distinction to understand is the correlation between stress and anxiety. Stress often deals with the occurrence of cortisol release, which is a steroid hormone that derives from glucocorticoids in response to stress (Ma et al., 2017). This is often released in association with depression and anxiety, as well as other negative emotions. An increase in cortisol can lead to many other physiological symptoms that include weight gain, headaches, muscle tension, increased blood pressure or risk for stroke, as well as digestive problems and concentration impairment (Mayo Foundation for Medical Education and Research, 2021).

Depression

Depression is a disorder of the mood, and the DSM-5 describes it as a change in the affect, mood, cognition, and neurovegetative functions (APA, 2022). To simplify this, Sadock et al. (2015), describes depression as a state of mood often caused by an event that changes appetite, weight, sleep patterns and activity, lack of energy, feelings of guilt, trouble with decision making and recurring thought of death and/or suicide.

Addressing depression is a key factor as it relates heavily to the development of anxiety and is often associated with the development of panic disorder and social anxiety disorder (APA, 2022). Furthermore, Sadock et al. (2015) report that certain clinicians contend that the

prevalence of life stressors, such as work, directly correlates with the onset of stress and may precipitate anxiety and depression.

Additional findings from Agyapong et al. (2022) concludes that depression among teachers profoundly impacts their well-being, efficiency, and overall functioning, exerting notable repercussions on both personal and professional spheres. The study also noted a wide-ranging prevalence of depression, spanning from 0.6% to 85.7%, with a median of 30.7%, indicating a marked surge post-pandemic and lockdown measures.

Burnout

According to Mérida-López & Extremera (2017), the term "*burnout*" is an ever-increasing theme that is commonly associated with high-risk professions and is described to involve emotional exhaustion. Teaching encompasses occupational hazards such as overseeing classrooms with diverse age groups, advocating for student well-being, and managing increased workloads, particularly evident amid the COVID-19 pandemic and recent occurrences of mass shootings. In the systematic review by Mérida-López & Extremera (2017), it was concluded that the impact of work-related factors had a direct effect on teachers' stress and burnout.

An article by Wender & De Mille (2019), discusses the effects mass shootings have had on teachers and their mental health. De Mille, both a teacher herself and a co-author of the article, reports that she worries how she will be able to protect her students. She states, "Now being at school everyday, I realize the answer — you do whatever you need to do for your students" (Wender & De Mille, 2019, Findings section). De Mille and Wender both further explain that with this, added uncertainty to their daily workdays, and a need for new implications for practice. They suggest that additional support should be provided to help teachers anticipate

and manage the emotional toll of their profession. It is recommended that they adopt new strategies to recognize and address the emotional challenges arising from these circumstances.

Current Treatments

Psychotherapy

Various therapies are available for treating anxiety disorders, including supportive psychotherapy, insight-oriented psychotherapy, behavior therapy, cognitive therapy, and virtual therapy (Sadock et al., 2015). One widely researched approach is Cognitive-Behavioral Therapy (CBT), identified by Sadock et al. (2015) as particularly effective in helping individuals regulate their reactions to stressful life events by altering their cognitive perspectives on specific situations. CBT targets maladaptive behaviors commonly linked to anxiety or mood disorders, and will often contain aspects of mindfulness-based therapy.

Psychopharmacology

There exists extensive research on the use and efficacy of pharmaceutical medications in the treatment of depression and anxiety disorders. Many of the medications include benzodiazepines, selective serotonin reuptake inhibitors (SSRIs), and tricyclic and tetracyclic drugs (Sadock et al., 2015). A common medication that is used for the treatment of depression and anxiety is Sertraline. This medication is in the class of SSRIs and is FDA approved for major depressive disorder, panic disorder, social anxiety disorder and post-traumatic stress disorder (Stahl, 2020).

Guided Meditative-Breathing

Considerable research has explored the efficacy of meditation in alleviating stress and anxiety while enhancing motivation and enthusiasm. Guided breathing serves as a component within a broader therapeutic framework, commonly linked with *mindfulness-based therapy*

(MBT). A comprehensive meta-analysis conducted by Khoury et al. (2013) underscores the effectiveness of MBT in treating various conditions, including anxiety, depression, and stress.

MBTs comprise of various components, such as body relaxation, grounding techniques, and either sitting or yoga practices; central to MBT is its focus on the breath. Hoffmann & Gómez (2017) conducted randomized-controlled trials (RCTs) comparing *Mindfulness-based stress reduction* (MBSR), which is a component of MBT to active control conditions. This had shown an effectively large reduction in anxiety and depression symptom severity among individuals with medical and psychiatric conditions.

Breathing practice, or "*diaphragmatic breathing*", is defined as an efficient way to apply mind-body connection training to deal with stress and psychosomatic conditions (Ma et al., 2017). Ma et al. (2017), found that whilst using breathing exercises to reduce these conditions of stress, anxiety, and depression, an effective scheduled included 20-sessions of 30-minute breathing exercises. They found that participants on day one reported a significant amount of emotional exhaustion induced by job burnout, and following the breathing exercises, a significant decrease in emotional exhaustion. The article also examined breathing practice and its effects on the release of cortisol. They showed that the concentration of cortisol was decreased significantly after 20 sessions of breathing interventions.

Internal Evidence

Situated in the central region of Arizona, a large suburban high school had noticed an increase in suicide among their students. In 2022 there was a reported three suicides within two-weeks of the school year and a spike has been seen within the beginning of 2023 for depression and self-harm among students (AZ Family News, 2023). This surge in stress, apprehension, and melancholy affects not only fellow students and families but also faculty members who may

perceive a sense of responsibility. The escalating stress levels directly align with heightened anxiety, posing a risk to our general well-being and capacity to support other students if left untreated.

A meta-analysis by Agyapong et al. (2022) reviewed stress, burnout, anxiety, and depression amongst teachers. They found that a teachers' anxiety prevalence ranged from 26% for borderline anxiety, 36% for minimal to no anxiety, and a 38% for clinically significant anxiety. During the COVID-19 pandemic, anxiety was found to have a prevalence of 43% (Agyapong et al., 2022).

Currently, the school is actively working on a project associated with an Arizona State University (ASU) Doctor of Nursing Practice student to implement education for students to be more aware of symptoms associated with depression and anxiety. However, there is a reported lack of measures to aid the teachers in managing these symptoms other than seeking out their own professional aid.

The purpose of this paper is the address the increasing anxiety associated with school teachers and managing it effectively. Multiple meetings with ASU staff and the school district of stakeholders brought upon extensive research has led to the PICO question: "(P) In schoolteachers Kindergarten through 12th grade (K-12), (I) how does two-minute mindfulness breathing exercises twice a day, (C) compared to no intervention, (O) affect the incidence of anxiety".

Search Strategy

An extensive review of the literature was performed using the online search databases: ProQuest, ASU Library, and PubMed. These databases were chosen for their relevancy to the

topics of medicine. Each search process allowed the user to provide detailed criteria and yielded peer reviewed and valid articles.

Limitations, Inclusion, and Exclusion Criteria

Inclusion criteria consisted of studies or peer-reviewed articles that were in English with dates ranging from 2017 to 2023. The focus was primarily on individuals of working-adult age with a specific profession geared toward an educational role. Exclusions included articles greater than five years from 2023 and populations under the age of 18. Articles or studies that were from different countries were included if they were in the English language. Limitations to the criteria include the search criteria of English language only and a date frame within five years of 2023.

Keyword Selection

Keyword selection was based on using combination terms that addressed all aspects of the PICOT question and included: high schoolteachers, grade school teachers, educators, mindfulness, mediation, deep breathing exercises, anxiety, anxiety management. The initial search yielded many results related to the key demographic, however, still resulted with many not meeting the inclusion criteria. Upon a second search with more specific terms to include: decrease/increase of anxiety, burnout, as well as “AND/OR”. The results minimized the number of articles/studies to review but more concise.

Search Yield

After narrowing down the keywords and setting limitations to the search, the total for the database ProQuest yielded: [Keyword terms (1)] 24,093; (2) 14,518; (3) 3,888; (4) 1,304 results. The database ASU Library yielded: (1) 22, (2) 39, (3) 3,651 results. The database PubMed yielded: (1) 9, (2) 7, (3) 42, (4) 719, (5) 2,526 results. Out of the three databases and total resulted articles 10-total were chosen after critical appraisal and for in-depth evaluation. Five

total were chosen from ProQuest, four from PubMed, and one from ASU Library. Of the 10 articles/studies: two were longitudinal quantitative, four randomized controlled trials, two cross-sectional mixed methods, and two qualitative mixed methods. The following articles and studies were chosen to address the PICOT question and add to further provide evidence on the subject matter.

Critical Appraisal and Synthesis of Evidence

After an extensive literature search and review, a rapid critical appraisal was conducted 10 evidence-based articles for further evaluation and synthesis. Most of the studies presented with high-level research, primarily RCTs and MM (see Appendix A, Table A3). All ten studies shown improvements in the well-being of the participants through motivational-based interventions (MBIs). The literature review consisted of studies both internationally and in the U.S., with varying sample sizes. All but one of the studies focused on educators as the DV, as the primary focus of this project is on grade school educators. Similarly, one of the ten articles focuses on DB, while the rest on MBIs, which consist of different techniques of mindfulness and grounding oneself to combat mental well-being. All the articles reviewed had inferred theories, however, of the inferred the majority follows the HBM (see Appendix A, Table A3).

The studies all presented with compelling evidence leading to show that the use of MBIs is effective in the reduction of stress, and anxiety amongst educators, professionals, and even students. A major factor contributing to the results of the studies include their measurement tools, all of which are extremely valid. The most used measurement tools include the Five Facet Mindfulness Questionnaire and the Maslach Burnout Inventory (see Appendix A, Table A3).

Evidence Synthesis Conclusion

In conclusion, this comprehensive literature review employed a meticulous approach, utilizing ProQuest, ASU Library, and PubMed databases to identify peer-reviewed articles relevant to the field of medicine. Inclusion and exclusion criteria were established to narrow down the focus, with a particular emphasis on articles in English, published between 2017 and 2023, pertaining to working-age adults in educational roles. Keyword selection was refined to optimize the search results, ultimately yielding 10 articles for in-depth evaluation.

These chosen articles, encompassing various research methodologies and international perspectives, collectively support the effectiveness of MBIs in reducing stress and anxiety among educators, professionals, and students. Most of the studies were based on randomized controlled trials (RCTs) and mixed methods (MM) research, with the majority aligning with the Health Belief Model (HBM) for theoretical framing.

The critical appraisal of these articles revealed that MBIs have a positive impact on the well-being of participants. The studies employed robust measurement tools, such as the Five Facet Mindfulness Questionnaire and the Maslach Burnout Inventory, ensuring the validity of their findings. As such, the evidence presented in this review underscores the value of MBIs in addressing anxiety and stress management in the targeted populations, offering a substantial contribution to the existing body of knowledge on this subject.

Theory Application

Research theories and models support the research and information either being implemented or evaluated. The two theories of framework commonly evaluated in the synthesis of information reviewed includes the *Health Belief Model* (HBM) and the *Social Cognitive Theory* (SCT).

The HBM is a theoretical model that focuses on health promotion and disease prevention programs. Key elements of the HBM includes an individual belief about health disorders/conditions, which then leads to their behaviors (Social Cognitive Theory Model [SCTM], 2018). Additionally, individuals look to factors influencing that condition such as potentials barriers, and efficacy.

Similarities exist between HBM and SCT, however, SCT describes the influence of individual experiences, actions of others, and environmental factors on health behaviors and perceptions. Key factors include self-efficacy, behaviors capability, expectations, observational learning and reinforcing positive behavior changes (SCTM, 2018).

The core framework and theory of this project leans toward the SCT (see Appendix B, Figure B1). Mindfulness-based therapy is a multifactorial modality that includes grounding techniques, diaphragmatic breathing, as well as meditation. As the teachers/educators experience the two-minute breathing exercises they can focus on self-efficacy, which is the major theme associated with SCT. As we look towards maintaining a positive mental well-being of our individual states, we note the feasibility of said intervention. SCT emphasizes on regulating one's own behavior, and modeling future behaviors off their observations and reinforcements of positive change. This will be evaluated based off their own experiences and follow-up through the GAD-7 questionnaire that was self-evaluated pre and post intervention.

Implantation Framework

Framework models are essential aspects involved in the presentation and implementation of research and quality improvement projects. They serve the purpose of providing a detailed step-by-step process of decision-making from the beginning if your PICOT, to your intervention, and finally evaluation.

This projects focus is on the *Intervention Mapping Framework* (IMF) which has been utilized globally with over 1000 published articles (Fernandez et al., 2019). IMF uses a six-step process (see Appendix B, figure B2) that includes: (1) logic model of the problem, (2) program outcomes and objectives (model of change), (3) program design, (4) program production, (5) program implementation of plan, and (6) the evaluation plan (Fernandez et al., 2019).

IMF will serve as a guide to this project as it is designed for health promotion planning. Following the guidance of IMF results in documentation and evaluation at each step in the process of implementing the intervention of two-minute deep breathing exercises. This process is essential for the development of the methodology of the project and aids in guidance towards appropriate evidence-based research to back up the current intervention and needs of the quality improvement project.

Implications of Practice Change

Stakeholders

Collaborating with the school district, I initiated communication with three key stakeholders. Brenda Vargas, the Director of Counseling & Social Services, served as the primary contact via email and phone. Prior to commencing the project, a zoom meeting was arranged with Brenda and Natasha Davis, the acting Prevention Coordinator, to introduce the project. During the IRB approval process, Brenda Vargas transitioned to a new district, appointing Erin Whittmore, the district social worker, as the new site champion. Jennifer Fletcher, PhD, currently serves as the Executive Director of Accountability, Assessment, and Research, overseeing the project proposal. The final stakeholder is Jason Phillips, the principal of the associated High School. Through phone calls, emails, and in-person meetings, we coordinated the project presentation and implementation plans.

Intervention and Design

This is a mixed-methods project that will act on two-minute breathing exercises twice daily for two weeks as the independent variable. The dependent variables will include the grade school educators who will be voluntary participants. Exclusion criteria includes those who are already using meditative breathing exercises and those who are not teachers/educators or working with children/adolescents in the grade school setting such as: counselors, janitorial staff, principals, or school security etc.

Initial Data Collection

Data collection will be collected via the Generalized Anxiety Disorder-7 (GAD-7) assessment tool (see Appendix B, figure B3). In a psychometric study by Johnson et al. (2019), the GAD-7 measuring tool was proven to be a highly sustainable and feasible. It was also shown to have high reliability and validity as a means of assessing for anxiety (see Appendix A, Table A3). The tool will be conducted prior to the intervention, and post two weeks after completion of intervention with the participants. To ensure appropriate intervention completion, participants were provided with an educational pamphlet via QR code including steps of guided breathing and a check box for every completion of the intervention. Participants were provided the author's email if questions or concerns arise following the quality improvement study. Information gathered will remain confidential and participants de-identified.

Methods

Organization Structure and Setting

The initiative is set to take place at a high school set in the heart of central Arizona. Initial education and recruitment phases are scheduled during a governing board meeting and a teacher in-service, both hosted within the school premises in an auditorium provided by

stakeholders. Regarding the intervention, participants will independently implement the program at locations of their choosing and during their designated time slots.

Budget

The author exclusively financed this project, covering expenses such as materials, supplies, and subscriptions. The majority of the budget was allocated to materials, including printed forms, pens for participants, file folders, and essential tools like 2-minute sand timers, crucial for facilitating the project's intervention. Additionally, several paid subscriptions were needed for data collection; SurveyHero was used for participants to fill out their assessments and post-project survey forms. A QR code generator required a monthly subscription along with Intellectus for descriptive statistics. Participating volunteers did not receive any monetary goods and author did not receive any outside funds. Total estimated cost of this project is $600.00.

Participants and Recruitment

Participants were recruited from the school approved by the stakeholders. During scheduled meetings, the author held an educational presentation that included the projects' purpose and design. A power point presentation was utilized to include internal and external data, the intervention, plan and discussion. After delivering the presentation, the author provided participants with the ethical and informed consent form, emphasizing its voluntary nature. Signatures for the consent forms was obtained on printed documents.

Inclusion and Exclusion

Inclusion criteria consisted of employees who work directly with children in the educational setting, adults age 18 and over and primarily English speaking.

Exclusion criteria includes those who are already using meditative breathing exercises and those who are not teachers/educators or working with children/adolescents in the grade school setting such as: counselors, janitorial staff, principals, or school security etc.

Design and Intervention Planning

This is a mixed-methods project that will act on two-minute breathing exercises twice daily for two weeks as the independent variable. The dependent variables will include the grade school educators who will be voluntary participants. The GAD-7 questionnaire will act as the measuring tool to assess the incidence of anxiety with the participants. Every participant will be assigned a unique access code to input their pre- and post-GAD-7 results. The initial assessment will occur before the intervention, with a follow-up assessment two weeks later. Furthermore, participants will complete a survey after the two-week intervention to rate their experience, share feedback or concerns, and indicate the days they utilized the intervention. This data will be protected and only accessed by the writer.

Timeline

IRB approval was secured in the summer of 2023, marking the commencement of the intervention in the subsequent fall. The project, executed in 2023, underwent thorough data analysis and evaluation during the spring of 2024. Dissemination of the project findings took place through a comprehensive presentation to key stakeholders at the conclusion of spring 2024, coinciding with the completion of the accompanying thesis paper.

Intervention

The intervention is a two-minute-deep breathing exercise completed twice a day for two weeks. This technique, demonstrated during the recruitment phase, was introduced to participants through a purpose-designed pamphlet outlining mindfulness practices. The overall

goal will be to complete the intervention in the morning and the evening or night. Participants will utilize this time to center themselves, focusing on their breath to alleviate stress or anxiety and cultivate healthy coping mechanisms.

Data Collection Plan

Data collection will be executed through diverse platforms. Initially, participants underwent an educational review of this quality improvement project facilitated by a printed brochure encompassing project statistics and step-by-step instructions (see Appendix C, Figure C3). Voluntary participants received email codes for the completion of pre and post-assessment forms, along with a post-project survey. Subsequently, participant responses will be anonymized and processed through SurveyHero and Intellectus, serving as data collection and storage tools. Matching pre and post-assessment results for anxiety will be conducted based on assigned de-identification numbers to ensure confidentiality.

Outcomes Measured, Instruments, and Analysis

The project employed the GAD-7 assessment tool and a post-project survey to measure outcomes. Widely recognized as a reliable psychometric tool, the GAD-7 is frequently utilized in anxiety disorder assessments, featuring seven questions about anxiety symptoms and an eighth determining their perceived difficulty (Johnson et al., 2019). Additionally, a set of nine questions, combining Likert-scale responses with space for comments and concerns, was developed by the author for post-project analysis.

Outcome measurement utilized Descriptive Statistics on the Intellectus platform as the primary analytical method. A Bivariate approach was adopted to explore correlations between the intervention and its impact on anxiety levels among K-12 teachers. Specifically, the GAD-7 questionnaire (see Appendix B Figure 3), served as the basis for evaluating the severity of

anxiety over a two-week period. Developed for primary care settings and modeled after the Diagnostic and Statistical Manual for Mental Disorders, Fourth Edition (DSM-IV), the GAD-7 is widely accepted for its efficacy in anxiety assessment (Johnson et al., 2019).

Results

Descriptive Statistics

Frequencies and Percentages

Intellectus Statistics was used to store, move, and analyze the data during this quality improvement project (Intellectus Statistics, 2023). The population of focus is teachers K-12. Frequencies and percentages were calculated for Gender, Age, Education, Race/ethnicity, and Years of Experience. The most frequently observed category data are as follows: Gender was Female (*n* = 8, 100%); Age was 41+ (*n* = 5, 63%); Education was Graduate (*n* = 6, 75%); Race/Ethnicity was Caucasian (*n* = 7, 88%); and Years of Experience was 13+ (*n* = 4, 50%). Frequencies and percentages are presented in Table 1.

Table 1

Frequency Table for Demographic Variables

Variable	*n*	*%*
Gender		
Female	8	100.00
Age		
41+	5	62.50
18-25	2	25.00
34-40	1	12.50
Education		

Graduate	6	75.00
Undergraduate	2	25.00
Race_Ethnicity		
Caucasian	7	87.50
Hispanic/Latin/Spanish	1	12.50
Years_Exp		
13+	4	50.00
0-3	2	25.00
8-12	1	12.50
4-7	1	12.50

Note. Results rounded in table to equal 100%.

Descriptive Statistics

Summary Statistics

Summary statistics were calculated for the overall recommendation of this project and the total completion of the intervention by participants. The data are as follows: The observations for the Survey Recommendation had an average score of 7.33 (*SD* = 1.75) and the scores ranged from 4-10 points. The Total Intervention had an average score of 10.82 (*SD* = 6.66) and the scores ranged from 3-25 points. Summary statistics can be found in Table 2.

Table 2

Summary Statistics Table for Total Intervention and Recommendation score

Variable	*M*	*SD*	*n*	Min	Max
Survey_Recommendation	7.33	1.75	8	4.00	10.00
Total_Intervention	10.82	6.66	8	3.00	25.00

Two-Tailed Paired Samples *t*-Test

A two-tailed paired samples *t*-test was conducted to examine Anxiety before and after intervention, following the intervention and whether it was significantly different from zero.

Summary Statistics

The average anxiety score before the intervention was 9.75 (SD = 4.06) and the scores ranged from 6-17 points. The average score after the intervention was 6.25 (SD = 5.23) and the scores ranged from 2-16 points Results can be found in Table 3.

Table 3

Summary Statistics Table for Outcome Variable Anxiety

Variable	*M*	*SD*	*n*	Min	Max
Pre_Anxiety	9.75	4.06	8	6.00	17.00
Post_Anxiety	6.25	5.23	8	2.00	16.00

The result of the two-tailed paired samples *t*-test was significant, $t\ (7) = 2.57$, $p = .037$, indicating the null hypothesis can be rejected. This finding suggests the difference in the mean of Pre-Anxiety Total Score and the mean of the Post-Anxiety Total Score was significantly different from zero. The average Pre anxiety score was significantly higher than the average Post anxiety score. Cohen's d = 0.91 and indicates the intervention had a strong effect on the outcome variable Anxiety. The results are presented in Table 5. A bar plot of the means is presented in Figure 1.

Table 4

Two-Tailed Paired Samples t-Test for the Difference Between Pre_AnxietyTS and Post_AnxietyTS

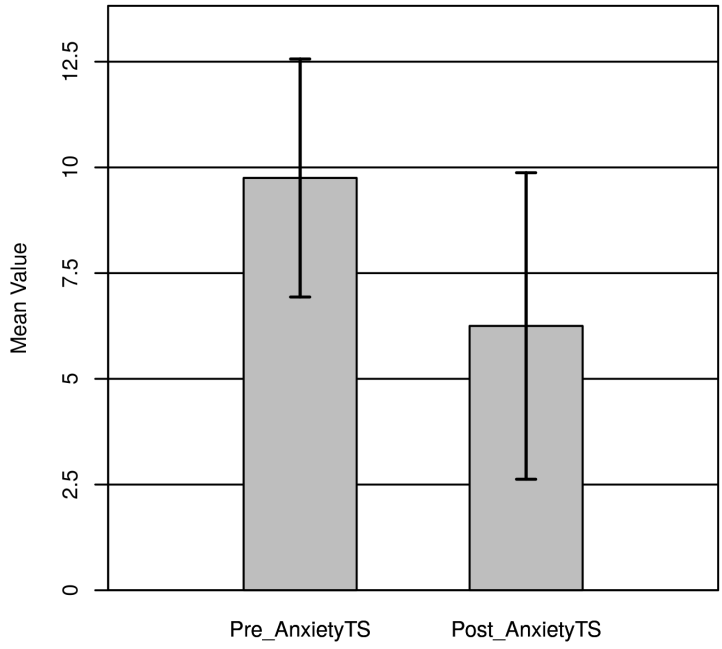
Pre_AnxietyTS		Post_AnxietyTS				
M	*SD*	*M*	*SD*	*t*	*p*	*d*

9.75	4.06	6.25	5.23	2.57	.037	0.91

Note. N = 8. Degrees of Freedom for the *t*-statistic = 7. *d* represents Cohen's *d.*

Figure 1

The means of Pre Anxiety and Post Anxiety total scores (TS) with 95.00% CI Error Bars



Descriptive Statistics

Frequencies and Percentages

The summary statistics were calculated for each variable for the Post Survey Questionnaire with frequencies and percentages for each nominal and ordinal variable. The data are as follows: The majority score for using the Intervention Regularly is Strongly Agree (n = 3, 38%); majority score regarding the Importance of the Intervention is Very Important (n = 5, 63%); majority score for whether the Intervention is time and cost efficient is Strongly Agree (n = 3, 38%); majority score for the participants Initial Reaction of the intervention is Very Positive

(n = 3, 38%); majority score for if the Intervention was Helpful is Somewhat Agree (n = 3, 38%). Frequencies and percentages are presented in Table 5.

Table 5

Frequency Table for Post Survey Recommendation

Variable	*n*	*%*
Survey_Regularly_Use_Intervention		
No answer	2	25.00
Somewhat Disagree	1	12.50
Somewhat Agree	2	25.00
Strongly Agree	3	37.50
Survey_Importance		
No answer	2	25.00
Somewhat Important	1	12.50
Very Important	5	62.50
Survey_Time_Cost_Efficient		
No answer	2	25.00
Somewhat Disagree	1	12.50
Somewhat Agree	2	25.00
Strongly Agree	3	37.50
Survey_Initial_Reaction		
No answer	2	25.00
Neutral	1	12.50
Somewhat Positive	2	25.00

Very Positive	3	37.50
Survey_Helpful		
No answer	2	25.00
Somewhat Disagree	1	12.50
Somewhat Agree	3	37.50
Strongly Agree	1	12.50
Neutral	1	12.50

Note. Results rounded in table to equal 100%.

Discussion

The significant two-tailed paired samples t-test result t (7) = 2.57, p = .037 indicates a noteworthy difference between the mean Pre-Anxiety Total Score and the mean Post-Anxiety Total Score, leading to the rejection of the null hypothesis. This suggests that the participants experienced a statistically significant reduction in anxiety levels from pre- to post-assessment, with the Pre-score being significantly higher than the post-score. These findings align with previous studies highlighting the efficacy of interventions targeting anxiety.

The practical significance of this difference implies that the intervention or condition under study may have a meaningful impact on reducing anxiety. The higher Pre-Anxiety Total Score signals an initial elevated level that was effectively addressed, providing valuable insights for practitioners and researchers alike. However, it is crucial to acknowledge the limitations of this study, such as the small sample size or potential confounding variables.

Furthermore, the bar plot in Figure 1 visually illustrates the mean differences, enhancing the clarity of the results. Future research could explore the long-term effects of the intervention or consider additional factors that might influence anxiety outcomes. These results contribute to the growing body of knowledge in anxiety research and offer practical implications for interventions aimed at anxiety reduction.

Glossaries

Descriptive Statistics

Descriptive statistics are typically used to describe or summarize the data. It is used as an exploratory method to examine the variables of interest, potentially before conducting inferential statistics on them. They provide summaries of the data and are used to answer descriptive research questions.

Kurtosis: The measure of the tail behavior of a distribution. Positive kurtosis signifies a distribution is more prone to outliers, and negative kurtosis implies a distribution is less prone to outliers.

Mean (*M*): The average value of a scale variable.

Sample Size (*n*): The frequency or count of a nominal or ordinal category.

Skewness: The measure of asymmetry in the distribution of a variable. Positive skewness indicates a long right tail, while negative skewness indicates a long-left tail.

Standard Deviation (*SD*): The spread of the data around the mean of a scale variable.

Standard Error of the Mean (SE_M): The estimate of how far the sample mean is likely to differ from the actual population mean.

Paired Samples *t*-Test

The paired (dependent) samples *t*-test is used to assess for significant differences between two scale variables that can be matched. Typically, the scale variables are matched by time (e.g. pretest vs. posttest), but the data can also be matched in other ways (e.g. husband vs. wife). The test uses the average difference between each pair of matched scores to compute the t statistic, which is used with the *df* to compute the *p*-value (i.e., significance level). A significant result indicates the observed test statistic would be unlikely under the null hypothesis. The dependent

samples *t*-test assumes that the differences between pairs of matched scores are normally distributed (i.e., normality).

Cohen's *d*: Effect size for the *t*-test; determines the strength of the differences between the matched scores. The larger the effect size, the greater the differences in the matched scores.

Mean (*M*): The average value of a scale-level variable.

***p*-value:** The probability of obtaining the observed results if the null hypothesis is true. A result is usually considered statistically significant if the *p*-value is ≤ .05.

Standard Deviation (*SD*): The spread of the data around the mean of a scale-level variable.

***t*-Test Statistic (*t*):** Used with the *df* to determine the *p* value.

Ethical Considerations and Informed Consent

Three ethical principles will guide this quality improvement project: respect for person(s), beneficence, and justice. Respect for persons is the principle that recognizes the autonomy and dignity of individuals and requires obtaining their informed consent for participation in any research or improvement project (Beauchamp & Childress, 2019). This project will uphold this principle by ensuring that all participants receive comprehensive information regarding the project's purpose, procedures, potential risks, and benefits. They will have the freedom to participate voluntarily or withdraw without facing any consequences. Additionally, participants' personal information will be safeguarded. Identification numbers, instead of names, will be used, and data will be stored on the author's personal laptop, which is equipped with firewall protections to maintain data security. Screening information will be collected via online survey site that has firewall protections in place and will only be accessible by the author.

Beneficence, another important ethical principle, involves promoting the well-being and welfare of individuals, seeking to maximize potential benefits and minimize potential harm (Beauchamp & Childress, 2019). This project will adhere to this principle by ensuring that the intervention (guided breathing) implemented are evidence-based, safe, and have the potential to chance the quality of life or outcome for the participants involved. The potential benefits and risks of the interventions will be carefully assessed and considered, as well as steps taken to mitigate and potential harm or adverse effects.

Justice, the final ethical principle, refers to the fair distribution of benefits, risks, and burdens in society (Beauchamp & Childress, 2019). This project will adhere to this by ensuring that the selection of participants is conducted in a fair and unbiased manner. All eligible individuals will have an equal opportunity to participate in the project, regardless of their demographics, or personal characteristics. Exclusion criteria will be listed per this projects' goals.

Participants will receive informed consent forms in a printed format, comprehensively outlining their rights and the project's nature. Signatures will be mandatory, and participants will be offered a personal copy of their consent for reference.

To ensure the ethical conduct of this project, the methodology will be throughly reviewed by faculty mentors and the Institutional Review Board (IRB). These oversight bodies will assess this project's compliance with ethical guidelines, ensuring that the project of the participants rights and welfare are in accordance. Any concerns or issues raised during the review process will be addressed and incorporated into the project design to uphold the highest ethical standards. Additionally, it is the aim of this project to address any disparities or inequalities in the school

systems to promote fairness and equal access to quality care, education, and interventions for our mental health.

Sustainability

Interventions aimed at fostering sustainability involve program continuity, duration, and institutionalization (Whelan et al., 2014). Establishing a dedicated team is crucial for sustaining any project and ensuring its ongoing implementation. The project site and its current stakeholders will collaborate to ensure the project progresses in a timely and organized manner. The school district comprises 45 schools, serving over 44,000 students and employing over 2,000 teachers from kindergarten to 12th grade. These stakeholders have identified a pressing need to better address teachers' anxiety, stress, and burnout. During stakeholder meetings, it was noted that although teacher insurance includes mental health coverage for therapy, only a third of the 5,000 employees utilize this resource.

Quality Improvement projects serve the purpose of implementing greater change to a need. Deep breathing exercises, an aspect of mindfulness-based therapies are known to successfully improve the mental health of educators. Additionally, it is both cost and time efficient, which will result in an easily workable intervention. Potential benefits of this project include building healthy coping skills that align with the busy working schedules are teachers often find themselves in. Those involved in these high-stress positions have a need for support of their well-being. Implications may cause policy change in the school district that can benefit those who suffer from job burnout, depression and anxiety. Another benefit is providing education on anxiety and bringing awareness to this ongoing issue that will benefit all of those involved in this community at a local, regional, and national level.

To improve the chances of sustainability with this project, this writer will develop plan for future development and expansion of the brochure and intervention. By working with the current site manager, to finish implementation of the project throughout the remaining schools within the school district. Additionally, this writer will be working with the previous Director of Social Work for this district, who has now moved to a neighboring district for a county expansion of this project.

Barriers

Several barriers, including technological issues, and a potential low sample size, require thoughtful and effective management. To address these challenges effectively, implementing backup paper forms and giving participants an educational pamphlet becomes pivotal, serving both as contingencies and motivational tools. Additionally, a significant consideration is intervention compliance, as highlighted by participants in the post-project survey who found it challenging to allocate time for both interventions daily. Adjusting the intervention frequency to enhance compliance appears as a beneficial strategy to accommodate participants' time constraints.

Impact of Project

In response to the escalating challenges faced by grade school educators, particularly in Arizona with its alarming teacher turnover rate, this project aimed to address the surge in anxiety, depression, and burnout. The multifaceted impact of the COVID-19 pandemic, coupled with increased mass shootings and job turnover, underscored the critical need for intervention. This project employed a targeted approach, utilizing guided breathing exercises as part of mindfulness-based interventions (MBI), to alleviate anxiety among educators.

Implementing two-minute deep breathing exercises over a two-week period, the project yielded tangible results measured through the GAD-7 Likert scale. The findings indicate a positive correlation between the intervention and anxiety reduction, with a notable impact on schoolteachers K-12. This evidence not only supports the feasibility and sustainability of the intervention but also positions it as a cost-effective and time-efficient strategy for reducing anxiety in this high-stress profession.

Conclusion

Anxiety, a multifaceted condition, significantly fuels burnout across professions, and the educational sector in Arizona faces heightened urgency. Mass shootings, the continuing impacts of COVID-19, and the nation's highest teacher turnover rate collectively amplify the challenges for educators. The success of the guided breathing exercises emphasizes the project's efficacy, aligning with previous research and offering practical implications for anxiety reduction.

Looking forward, the focus shifts to sustainability and expansion within the central Arizona school district, involving collaboration with stakeholders and continuous implementation. Addressing challenges, including technological issues and potential low sample size, through backup paper forms and motivational tools, ensures the project's resilience. Adjusting intervention frequency to enhance compliance emerges as a valuable strategy for accommodating participants' time constraints.

In conclusion, this evidence-based project not only contributes to the evolving landscape of anxiety research but also holds promising implications for the well-being of educators. The potential for policy changes at local, regional, and national levels highlights the project's significance beyond its immediate scope. The impact on educators' mental health signifies a step towards fostering a healthier, more supportive environment in the education sector, offering

valuable lessons for future interventions, initiatives and hopefully MBI implementation in all schools throughout the district.

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Appendix A

Evaluation Table and Synthesis

Table A1

Evaluation Table for Quantitative Studies

Citation	Theoretical/ Conceptual Framework	Design/ Method/ Purpose	Sample/Setting	Variables	Measurement/ Instrumentation	Data Analysis	Results/ Findings	Level of Evidence; Application to practice/ Generalization
Matiz et al., (2020) Positive Impact of Mindfulness Meditation on Mental Health of Female Teachers during the COVID-19	SC-T	Longitudinal Study Quantitative **Purpose:** Three main objectives: (1) establish the two groups of teachers (LR, HR) were different at baselines; (2) examine the changes in the two	**N**= 58 **Gender:** Female **Race:** Caucasian/Italian **Mean age:** 51. **Job:** Teachers	**IV:** Mindfulness Orientation Meditation (MOM) course **DVs:** Mindfulness skills, personality profile, interoceptive awareness,	FFMQ; QCAE; TCI; MAIA; PWB; HADS; MBI-ES	ANOVA Nominal logistic regression	**FFMQ – (**α≥0.74) **QCAE – (**α≥ 0.77) **TCI – (**α 0.71) MAIA – (α 0.53-0.80) **PWB – (**α 0.60 – 0.70) **HADS – (**α = 0.82) **MBI-ES (**α ≥ 0.76)	**LOE:** IV **Strengths**: Quantitative Longitudinal Study, low risk, noninvasive intervention; minimal limitations, no appearance of

KEY: ANOVA Analysis of Variance; **ANCOVA** Analysis of Covariance; **CE** Cost Efficient; **CG** Control Group; **CLASS** Classroom Assessment Scoring System; **CLASS-S** Secondary; **CO** Classroom outcomes; **CRT** Cluster Randomized Trial; **DASS** Depression and Anxiety Stress Scale; **DB** Diaphragmatic Breathing; **DPS** Daily Physical Symptoms; **DS** Descriptive Statistics; **DV** Dependent Variable; **ERQ** Emotional Regulation Questionnaire; **EI** Emotional Intelligence; **ES** Emotional Support; **ESS-MBI** Emotional Exhaustion Sub-scale of the Maslach Burnout Inventory; **FIMP** Formal and Informal Mindfulness Practice; **FFMQ** Five Facet Mindfulness Questionnaire; **FFMQ-SF** Short-form; **GAD-7** General Anxiety Disorder-7; **GLM** General Linear Models; **HADS** Hospital Anxiety and Depression Scale; **HBM** Health Belief Model; **IG** Intervention Group; **ID** Independent Variable; **LOE** Level of Evidence; **LQ** Longitudinal Quantitative; **LMEM** Linear Mixed-effects Model; **MAIA** Multidimensional Assessment of Interoceptive Awareness; **MBCT** Mindfulness-based Cognitive Therapy; **MBI** Maslach Burnout Inventory; **MBI-ES** Educators Survey; **MBI-GS** General Survey; **MBEB** Mindfulness-based Emotional Balance; **MBSR** Mindfulness-based Stress Reduction; **MLGC** Multi-level Growth Curve Model; **MLRA** Multiple Linear Regression Analysis; **MM** Mixed-Method; **MOM** Mindfulness Orientation Meditation; **MP** Mindfulness-Program; **MRMA** Mixed-repeated Measure Analysis; **MTS** Mindfulness in Teaching Scale; **NBM** Negative Binominal Model; **NCT** Number Cancellation Test; **NLR** Nominal Logistic Regression; **NMGS** Neff's Measure of General Self-compassion; **P** Professional; **PANAS** Positive and Negative Affect Scale; **PHQ-9** Patient Health Questionnaire; **PROMIS** Patient Reported Outcome Measurement Information System; **PSS** Perceived Stress Scale; **PWB** Professional Well-being; **QCAE** Questionnaire of Cognitive and Affective Empathy; **RCT** Randomized Controlled Trial; **RTG** Relationship to Group; **RTI** Relationship to Instructor; **S** Student; **SCS-SF** Self Compassion Scale-Short Form; **SCT** Salivary Cortisol Test; **SC-T** Social Cognitive Theory; **SWB** Student Well-being; **T** Teacher; **TAM** Thematic Analysis Method; **TE** Time efficient; **TOC** Theory of Change; **TOHW** Teacher Occupational Health and Well-being; **TRI-19** Therapeutic Factors Inventory; **TS** Teacher Skills; **TSES** Teacher's Sense of Efficacy Scale; **TUS** Time Urgency Scale; **TWB** Teacher Well-being; **WAI** Working Alliance Inventory; **WEMWBS** Warwick Edinburgh Mental Well-being Scale; **WG** Waitlist Group; **WLEIS** Wong and Law Emotional Intelligence Scale

Outbreak in Italy **Country:** Italy **Funding:** Prevention Department of Region Autonoma Friulia Venezia Giuliano **Bias:** None stated, the founders had no role in the study design or analysis		groups that occurred before to after the MOM course; and (3) to evaluate the teachers' satisfaction with the MOM course and their perception of the courses impact on their lives in the context of the COVID-19 pandemic research questions/hypothesis: it was hypothesized that the LR group compared to the HR group had worse baseline levels of psychological well-being,	**Setting:** Two schools were chosen to host the MOM courses and the self-reported tools **Exclusions:** none listed **Attrition:** 8 did not complete the MOM training	psychological well-being, emotional distress, teacher burnout **Definitions:** MOM: 2 hr group meeting per week and 30 min daily meditation at home; 10 min of mindful breathing, 10 min being aware of bodily sensations and 10 min of being aware of one's emotional phenomena				conflict of interest **Weaknesses:** limited population diversity; only use of self-reported measures; MOM evaluation tool no credibility; modest attrition rate. **Conclusions:** The study shows that it is possible to enhance resilience and improve the well-being of individuals through mindfulness.

KEY: ANOVA Analysis of Variance; **ANCOVA** Analysis of Covariance; **CE** Cost Efficient; **CG** Control Group; **CLASS** Classroom Assessment Scoring System; **CLASS-S** Secondary; **CO** Classroom outcomes; **CRT** Cluster Randomized Trial; **DASS** Depression and Anxiety Stress Scale; **DB** Diaphragmatic Breathing; **DPS** Daily Physical Symptoms; **DS** Descriptive Statistics; **DV** Dependent Variable; **ERQ** Emotional Regulation Questionnaire; **EI** Emotional Intelligence; **ES** Emotional Support; **ESS-MBI** Emotional Exhaustion Sub-scale of the Maslach Burnout Inventory; **FIMP** Formal and Informal Mindfulness Practice; **FFMQ** Five Facet Mindfulness Questionnaire; **FFMQ-SF** Short-form; **GAD-7** General Anxiety Disorder-7; **GLM** General Linear Models; **HADS** Hospital Anxiety and Depression Scale; **HBM** Health Belief Model; **IG** Intervention Group; **ID** Independent Variable; **LOE** Level of Evidence; **LQ** Longitudinal Quantitative; **LMEM** Linear Mixed-effects Model; **MAIA** Multidimensional Assessment of Interoceptive Awareness; **MBCT** Mindfulness-based Cognitive Therapy; **MBI** Maslach Burnout Inventory; **MBI-ES** Educators Survey; **MBI-GS** General Survey; **MBEB** Mindfulness-based Emotional Balance; **MBSR** Mindfulness-based Stress Reduction; **MLGC** Multi-level Growth Curve Model; **MLRA** Multiple Linear Regression Analysis; **MM** Mixed-Method; **MOM** Mindfulness Orientation Meditation; **MP** Mindfulness-Program; **MRMA** Mixed-repeated Measure Analysis; **MTS** Mindfulness in Teaching Scale; **NBM** Negative Binominal Model; **NCT** Number Cancellation Test; **NLR** Nominal Logistic Regression; **NMGS** Neff's Measure of General Self-compassion; **P** Professional; **PANAS** Positive and Negative Affect Scale; **PHQ-9** Patient Health Questionnaire; **PROMIS** Patient Reported Outcome Measurement Information System; **PSS** Perceived Stress Scale; **PWB** Professional Well-being; **QCAE** Questionnaire of Cognitive and Affective Empathy; **RCT** Randomized Controlled Trial; **RTG** Relationship to Group; **RTI** Relationship to Instructor; **S** Student; **SCS-SF** Self Compassion Scale-Short Form; **SCT** Salivary Cortisol Test; **SC-T** Social Cognitive Theory; **SWB** Student Well-being; **T** Teacher; **TAM** Thematic Analysis Method; **TE** Time efficient; **TOC** Theory of Change; **TOHW** Teacher Occupational Health and Well-being; **TRI-19** Therapeutic Factors Inventory; **TS** Teacher Skills; **TSES** Teacher's Sense of Efficacy Scale; **TUS** Time Urgency Scale; **TWB** Teacher Well-being; **WAI** Working Alliance Inventory; **WEMWBS** Warwick Edinburgh Mental Well-being Scale; **WG** Waitlist Group; **WLEIS** Wong and Law Emotional Intelligence Scale

		mindfulness skills, Interoceptive awareness, emotional distress, empathy, and burnout.						**Feasibility:** Recommended for use in practice due to low cost, ease of administration, potential effectiveness
Jennings et al., (2017) Impacts of the CARE for Teachers program on teachers' social and emotional competencies and classroom interactions **Country:** USA/NYC	HBM	Cluster randomized trail design Quantitative **Purpose:** To implement CARE for teachers to promote teachers social and emotional competence and improve the quality of classroom interactions and	**N**= 224 **CG1:** n = 53 **CG2**: n = 171 **Gender**: female n = 209 Male n = 15 **Ethnicity**: 33% white, 31% Hispanic, 26% African American	**IV:** CARE for Teachers program **DV:** Self-reported measuring tools and assessments on teachers' well-being and stress **Definitions:** CARE is an innovative professional	ERQ, TSES, FFMQ, PHQ-8, GAD-7, PANAS, PROMIS, MBOI, PSS, TUS, DPS, CLASS	Two-level Hierarchical Linear Models for continuous outcomes Two-level Hierarchical Generalized Linear Models for count outcomes MPLUS version 7.2 for analyses Poisson distributional	**DV:** (ERQ) — alpha 0.67 – 0.68 (TSES) — alpha 0.85 alpha 0.83 – 0.85 PHQ-8 — alpha 0.87 GAD-7 — alpha 0.92 – 0.93	**Level of Evidence (LOE):** V **Strengths**: cluster randomized trial design; low risk, noninvasive intervention **Weaknesses:** Moderate attrition, no indications of

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Funding: does not say; but associated with The University of Virginia **Bias:** None stated		result in a reduction of stress	**Education**: master's degree n = 213 **Mean age:** 40. **Job:** Teacher **Setting:** took place at the teacher's schools/classrooms **Exclusions:** none listed **Attrition:** **N** = 301 declined, no reason listed, high attrition	development program that introduces specific skills to help teachers manage stress and improve their teaching effectiveness. CARE combines emotion skills training with mindfulness-based stress reduction activities and provides teachers with opportunities to practice applying these skills		assumption model for outcome variables Negative Binominal model Post hoc analysis of sub scales	PANAS — alpha 0.75 – 0.92 PROMIS — alpha 0.85 – 0.87 MBOI — alpha 0.91 PSS — 0.77 – 0.78 TUS — alpha 0.70 – 0.75 DPS alpha (GI.55-.58), (aches.56-.63)	bias, no indications of funding **Conclusions:** Teachers with high levels of social and emotional competencies can promote high quality classroom interactions that promote student learning. In comparison to the control teachers, teachers who received CARE for Teachers reported

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				in the classroom.				significantly higher levels of functioning on 4/5 factors that assessed broad domains hypothesized to be effective by the intervention. Teachers reported a 14% improvement in their ability to regulate their emotions. Impact on classrooms — compared with control

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								teachers, intervention teachers provided higher levels of emotional support. **Feasibility:** Recommended for use in practice due to low cost,
Roeser et al., (2022) Mindfulness Training Improves Middle School Teachers Occupational Health, Well-being, and Interactions with Students in their Most	TOC SC-T	Randomized Controlled Trial Quantitative **Purpose:** Examine the impacts of the Mindfulness-based Emotional Balance (MBEB) program about improving middle- school teachers occupational health and well	**N**= 29 **CG1:** n = 29 **Education**: 96% master's degree **Gender**: 69% female **Ethnicity**: 82% white **Mean age:** 41.	**IV:** Mindfulness -based Emotional Balance program **DV:** Teacher confidence, well-being, and their quality interactions	Teacher skills; (TS) Teacher occupational health and well-being; (TOHW) Classroom outcomes; (CO)	Program Participation Analyses: Descriptive Statistics TS: FFMQ (αt1=0.89; αt2=0.91; αt3=0.90) NMGS (αt1=0.82, αt2=0.86, αt3=0.88)	**DV:** Teachers who participated in the program reported less job stress and reduced feelings of emotional exhaustion, anxiety, and depression. They also improved the	**LOE:** V **Strengths**: use of longitudinal data-intensive methods **Weaknesses:** Small amount of research based on in-classroom studies. The

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Stressful Classrooms **Country:** School district in the Pacific Northwest, USA **Funding:** none listed **Bias:** none listed.		being, as well as the quality of their interactions with students and classroom climate for student learning	**Job:** Middle-school teachers Averages 10 years of experience **Setting:** in-class **Exclusions:** settings that included gymnasiums, playgrounds, counseling offices, or spaces where education specialists work individually with students **Attrition:** N = 30 Initial 58 —> 30 —> 28 final	with their students **Definitions:** Theory of Change: program impacting outcomes from interactions		TOHW: 5-point scale (αt1=0.63, αt2=0.63, αt3=0.70) EES-MBI (αt1=0.88, αt2=0.90, αt30.91) CO: CLASS-S (emotional support=0.78-0.82; classroom organization=0.76-0.84)	ways they managed adolescents' behavior in their most stressful classroom.	generalizability of impacts on teachers K-12 No active control groups. **Conclusions:** The results show that this method can create more autonomy and support with teachers, as well as aid in proving emotionally supportive and instructionally rich environments **Feasibility:** promising results and

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								has an increased need for more research; low cost
Simonsson et al., (2021) Effects of an eight-week, online mindfulness program on anxiety and depression in university students during COVID-19 **Country:** United Kingdom (UK), University of Oxford **Funding:**	HBM	RCT **Purpose**: Aim to determine whether an eight-week, online mindfulness program impacted symptoms of anxiety and depression among students at the University of Oxford.	**N** = 177 **Education**: Undergraduate (55.9%) **Gender:** Female (64.4%) **Ethnicity:** White (68.9%) **Mean age:** 18-24 years (71.8%) **Job:** Student **Setting:** In University (online)	**IV** 8-week mindfulness program **DV** Students Well-being	Demographics: Gender, age, citizenship, language, degree program Anxiety and depression: Patient-reported outcome measurement information system (PROMIS)	Multilevel models Conducted in R using the Linear Mixed-Effects Models (lme4) package	PROMIS: Anxiety (α=0.84) Depression (α=0.88)	**LOE**: V **Strengths:** RCT **Weaknesses**: Limited generalizability to single UK students, participants were not asked to report their at home practice of mindfulness **Conclusions**: the RCT showed a reduction in

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Sweden-America Foundation; Grant from the National Center for Complementary and Integrative Health **Bias**: Denies any conflict of interest			**Exclusion:** None stated. **Attrition:** None stated.					anxiety symptoms but not statistically significant in depressive symptoms **Feasibility**: Low cost,
Dave et al., (2020) Impact of Mindfulness Training on Well-Being of Educators. **Country**: Miami-Dade County, USA **Funding:**	HBM	Longitudinal no controlled trial Quantitative **Purpose:** Assess the effects of Mindfulness-Based Stress Reduction (MBSR) program on educators and their stress as it relates to burnout.	**N** = 236 **Education:** Masters (67.8%) **Gender**: Women (92.8%) **Ethnicity**: Caucasian (81.8%) Hispanic (57.2%)	**IV:** MBSR: 8-week program **DV:** Educator stress and wellness	MBI PROMIS SCS-SF FFMQ-24	Multiple linear regression analysis	MLRA: short term showed statically significant improvements in mindfulness, self-compassion, and personal accomplishment and decrease in isolation, anxiety,	**LOE:** IV **Strengths:** Effect size: medium **Weaknesses:** High attrition percentage. Lack of a control group.

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Denies funding received. **Bias**: Denies bias			Non-Hispanic (42.8%) **Mean age:** 48.8 **Job**: Educators (K-12 public and private schools), school administrators, counselors/social workers **Setting**: Classroom **Exclusion:** None stated. **Attrition**: Initial 457 with only 236 completing both the baseline and immediate post-				fatigue, and emotional exhaustion. MLRA: long-term cohort showed self-compassion and mindfulness continued to improve significantly, where negative outcomes of fatigue and sleep disturbance showed significant decreases. MBI: Emotional exhaustion ($p = 0.0007$); depersonalization ($p =$	Authors did not assess the burnout sub scales for long-term analysis. **Conclusions**: Findings are consistent with previous literature and support the need for programs. Results of the study show a positive impact of mindfulness training in decreasing depression, fatigue, isolation, anxiety, self-judgement, and

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			intervention survey (51%)				0.0175); personal accomplishment (p = 0.0011) PROMIS: Anxiety, depression, fatigue, sleep disturbance, social satisfaction (p < 0.0001) SCS-SF: Self-kindness, self-judgement, common humanity, isolation, mindfulness, over-identified (p < 0.0001) FFMQ-24: Observing, describing, non-judging,	increasing self-compassion and social satisfaction among educators. **Feasibility:** Low cost, easily implemented and calculated.

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							non-reaction ($p < 0.0001$); act with awareness ($p = 0.0005$)	
Montero-Marin et al., (2021) Teachers "Finding Peace in Frantic World": An experimental study of self-taught and instructor-led mindfulness program formats on acceptability, effectiveness, and mechanisms. **Country**: England **Funding**:	HBM	RCT **Purpose**: To compare self-taught versus instructor-led MT to show an improvement in teacher outcomes by enchanting mindfulness, self-compassion, well-being, perceived stress, anxiety, depression, and burnout.	**N** = 206 **Education:** Inferred college education. **Gender**: Female (77%) **Mean age:** 39 years old **Job:** Teachers from 43 schools **Setting:** Home/personal space **Exclusion:** Schools that provided fewer	**IV**: Mindfulness Training **DV**: Teachers Well-being	FFMQ-SF SCS-SF PSS PHQ-9 GAD-7 MBI-ES	Linear Mixed-Effects Model Descriptive Statistics Chi-Square (group comparisons) Fisher's Test Mann-Whitney T-test	FFMQ-SF ($p = .883$) SCS-SF ($P = .999$) WEMWBS ($p = 0.972$) PSS ($p = .232$) PHQ-9 ($p = .469$) GAD-7 ($p = .181$) MBI-ES ($p = .173$	**LOE**: V **Strengths**: RCT, Large sample size, non-invasive, low attrition percentage **Weaknesses**: Primary aim of study was to examine the cost-effectiveness of the different models (could have focused more on the models and their results),

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The Welcome Trust Award Fund (had no role in the study, collection, or management) **Bias**: Denies			than three participants **Attrition:** N = 254 —> 206 (18.89 %)					possible self-report bias, different home environments can impact results. Expensive for instructor-led **Conclusions**: study suggests that instructor-led produced greater improvements in mindfulness, self-compassion, well-being, stress, anxiety, and depression than self taught format.

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								Feasibility: Low cost for self-taught classes
Ma et al., (2017) The Effect of Diaphragmatic Breathing on Attention, Negative Affect and Stress in Health Adults **Country:** Beijing, China **Funding**: Grants from the Ministry of Education in China; Project of Humanities	HMB	RCT **Purpose:** Aimed to investigate the effect of diaphragmatic breathing on cognition, affect, and cortisol response to stress	**N** = 40 **CG** = 20 **Breathing Intervention Group (BIG)** = 20 **Education** P = 0.10 **Gender** Males: 50% (10 BIG, 10 CG) Females: 50% (10 BIG, 10 CG) **Mean Age** P = 0.56 **Job** From local IT company, job	**IV** Diaphragmatic Breathing (20 – minute session) **DV** Healthy adults stress levels (cognition, affect, and cortisol)	PANAS NCT SCT	Paired t-tests Mixed repeated measure analysis (MRMA)	**PANAS**: 2x2 MRMA Significant Reduction in NA (p = 0.02); no significant main effect on time (F = 2.72, P = 0.11) PA insignificant interaction between group and test times (F = 0.96, P = 0.33) non-significant main effect on group (F = 0.29, P = 0.60) **NCT**:	**LOE:** V **Strengths** RCT, Valid measures and analyses, low cost, non-invasive, no attrition **Weaknesses** Employed healthy populations as target populations; P-values for demographics ; time consuming intervention.

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and Social Sciences; and the National Natural Science Foundation of China **Bias**: Denies bias or COI			not specified; work experience p = 0.22 **Setting** Interventions performed in sunny, soundproof, open-air conference room at IT company. **Exclusion** History of physical health problems, such as autoimmune disease, diabetes, neuropathy, cardiovascular or cerebrovascular disease, or drug/alcohol abuse problems; additionally,				2x2 MRMA Significant interaction between time and group (F = 9.68, p = 0.004); BIG significant increase in NCT after intervention with CG (P = 0.000); main effect of time and effect on group was significant (p = 0.84 and p = 0.01) **SCT**: 2x4 MRMA Main effect of time was significant (F = 4.17, p = 0.008); no significant	**Conclusion** Study presented that 8-weeks of intensive diaphragmatic breathing training (mindfulness) could influence the cognition, emotion, and physiological responses. No group differentially influences cortisol levels, however, there was a significant decrease in the NA scores.

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			those who had training in mind-body yoga. **Attrition** None listed				main effect of group (F = 0.01, P = 0.92)	**Feasibility** Low-cost, shows the potential benefits of diaphragmatic breathing practices for improving cognitive function and reducing negative affect and physiological response to stress in healthy adults

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Table A2

Evaluation Table for Qualitative Studies

Citation	Theoretical/ Conceptual Framework	Design/ Method/ Purpose	Sample/Setting	Variables/Research Question/Theme/Hypothesis	Measurement / Instrumentation	Data Analysis	Results/ Findings	Level of Evidence; Application to practice/ Generalization
Canby et al., (2020) The Contribution of Common and Specific Therapeutic Factors to Mindfulness-based Outcomes **Country:** Providence, Road Island, USA	SC-T	MM **Purpose:** Investigate the contribution of specific (mindfulness practice-related) and common (instructor and group related) therapeutic factors to client	**N** = 96 104 initial randomized into 9-groups **Ethnicity**: 99% white, 1% Asian 7% Latinx/Hispanic **Gender:** female 73% **Mean Age:** 40.3±	**IV** MBI **DV** Participants with mild-severe depression **Research questions:** Does Mindfulness-based Cognitive Therapy (MBCT**)** Influence Depression and anxiety.	ES WAI TRI-19 FIMP DASS FFMQ	Qualitative Analysis using SPSS25 and R 4.0; Multilevel growth curve models using nlme R Package;	**Quantitative:** ES **(**α=0.89); WAI **(**α=0.87;0.78;0.91); TRI-19 **(**α=0.90, 0.82, 0.83, 0.58); DASS **(**depression α=0.92-0.95), (anxiety α=0.77=0.85), (stress α=0.88-0.92); FFFMQ **(**α=0.91-0.94) **Qualitative:**	**LOE:** III **Strengths**: Measurement and instrument evaluations, non-invasive, large sample size, mixed-method study, low attrition **Weaknesses:** Diversity of

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Funding: National Institutes of Health Science of Behavior Change Common Fund Program through an award by the National Center for Complimentary and Integrative Health Grant, Mind and Life 1440 grand, and the Brown University Contemplative Studies initiative		improvements within mindfulness-based interventions (MBI)	**Education**: 2.9% high school, 53.8% college, 27.9% master's degree, 15.4% doctoral degree **Demographics:** English-speaking between ages of 18-65 with mild to severe levels of depression and anxiety **Setting:** Self-reported at work **Exclusions:** lifetime				**RTG**: bonding (20% stressed importance); empathy and compassion (18% observed everyone affected differently); experiencing similar emotions (22%); secure expression of emotions (15%); accountability and working alliance (14%); learning aspects (11% appreciated learning about others); criticism of group (10%). **RTI**: Instructor personality	ethnicity, bias with author **Conclusions:** Instructor ratings [predicted changes in depression and stress, Group rating predicated changes in stress and self-reported mindfulness. Social common factors were stronger predictors of improvements in depression, stress, and self-reported mindfulness.

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Bias: Willoughby Britton (Co-Author) is a MBSR and MBCT teachers and has received financial compensation for this role; is also affiliated with the Mindfulness Center at Brown University			history of bipolar, psychotic, borderline or antisocial Personality disorder, repeated self-harm or organic brain damage, current depression in the extreme severe range or active suicidal ideation, eating disorder, substance abuse or obsessive-compulsive disorder, current psychotherapy, or regular				(10% influence on experience); instructor-instructor dynamics (9% felt they complemented each other); guidance (16% perceived positively); enthusiasm and commitment (7%); instructor disclosure (10%); bonding (8% felt appreciated); structures of power or constraint (1%); amount, consistency, or accessibility of instructor-participant interaction	Qualitative data supported the importance of relationships with instructor and group members. The results of mindfulness meditation practice accounted for much of the effect. **Feasibility:** recommended for use in practice with teachers. Low-cost effect.

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			meditation practice and new or modified antidepressant changes in the last 2-months **Attrition:** N = 8				(rarely mentioned)	
Luong et al., (2019) Exploring Mindfulness Benefits for Students and Teachers in Three German High Schools **Country:** Germany **Funding:** Through the	HBM	Cross-sectional MM **Purpose:** Evaluated a dual approach that introduces mindfulness simultaneously to students and teachers in three different	**N**= Students 73 **N=** teachers 90 **CG S: N**= 35 **WG S: N=** 38 **CG T: N=** 45 **WG T: N=** 37	**IV** MBI **DV** Student and teacher well-being **Hypothesis Questions** Does MBSR program influence the mental health of Students and teachers.	Self-reported mindfulness Perceived stress Anxiety and depression General self-efficacy Teacher and Student self-efficacy Self-regulation	Power Analysis **Quantitative** data analyzed with Statistical Package for the Social Sciences 21 (IBM SPSS 21) Calculations based on the general lineal	**Qualitative results (S)**: IG scored significantly higher on the Emotional competence Scale and self-regulation scale; mindfulness concepts students had a hard time understanding the concepts.	**LOE:** III **Strengths**: Effective on both populations addressing collaborative effects, non-invasive, large sample size **Weaknesses:** Students had a difficult

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Collaborative Research Center at the University of Freiburg, Germany **Bias:** Authors Luong and Bauer are a part of The University of Freiburg		German high schools. Hypothesized that improvements in areas of mental health, social emotional competencies, and creativity for those who participated in MBSR.	**Gender**: female n = not listed Male n = not listed **Ethnicity**: not listed **Education**: (S) Grammar school, high school students **Mean age:** not lsited **Job:** Teachers **Setting:** In school **Exclusions:** Details no explicit		Emotion Regulation Interpersonal Competencies Openness to Experience Drawing Creativity Verbal Creativity Motivation and Expectations	model (GLM) T-tests for independent samples Chi-square tests to invest age group differences at baseline. Group comparisons used analysis of covariance (ANCOVA) **Qualitative** analysis relied on mixed-methods approach	**Quantitative results (T):** significant group difference in self-reported mindfulness; increase in IG vs WG ($p<0.1$ Cohen's d = 0.48)	time understanding concepts **Conclusions:** results found that two population benefited. The younger participants reported significant improvements with small to medium effect sizes for quantitative measures of self-reported mindfulness. Both populations report promising changes in

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			exclusion criteria. **Attrition:** N = 8 students N = 1 teacher intervention group N= 7 teachers waitlist group					terms of coping with stressors and negative emotions as well as interpersonal aspects, suggesting that MBI could positively impact school limited and teacher-students' interactions. **Feasibility:** low cost, easily implemented
Cheng et al., (2022) The Effect of Mindfulness-Based	HBM	Mixed Methods **Purpose**:	**N** = 70 **CG** (n = 35) **MT** group (n = 35)	**IV** Mindfulness Training Program **DV**	MTS DASS-21 MBI-GS	**Quantitative**: Mixed-Design ANOVA	**Quantitative** MTS (F = 6.28; P = 0.02) DASS (F = 4.93; p = 0.03)	**LOE:** III **Strengths**:

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Programs on Psychological Distress and Burnout in Kindergarten Teachers **Country**: China **Funding**: The National Social Science Foundation of Education Western Project **Bias**: Denies bias or conflicts of interest (COI)		Evaluate the feasibility and effectiveness of an adapted mindfulness-based program for kindergarten teachers in reducing the likelihood of psychological distress and burnout	**Education**: Undergraduate degree or higher (97.1%) **Gender**: Female (94%) **Mean age:** 30.96 **Job**: Kindergarten teachers mean average experience of 9 years. **Setting**: Self-reported at home or class **Exclusion:** Non stated	Teachers Well-being **Themes** (1) Improved present moment awareness (IPMA) (2) Enhanced emotion regulation (EER) (3) Greater compassion and acceptance (GCA) (4) Suggestions for improving the program (SIP) **Research Questions** Will Emotional Intelligence (EI) training reduce stress and job dissatisfaction among teachers and improve their efficiency and well-being?	WLEIS	(between group-effects) Chi-Square tests (categorical variables) Independent t-tests (continuous variables) **Qualitative**: Thematic Analysis method	MBI-GS (F= 6.14; p = 0.09) WLEIS (F = 5.58; p = 0.02) **Qualitative** IPMA: n=19 awareness of body sensation and thought, n=21 enjoying the moment EER: n=13, recognizing emotion triggers; n=19, self-control; n=17 relieved negative emotions; n=11 enhancing ability to relax GCA: n=14 greater self-acceptance; n=16	Low attrition, Mixed-methods, long-standing evidence to back up current study, reliable measures and analyses, non-invasive. **Weaknesses:** Small sample size, mainly female demographic, self-reported scales **Conclusions:** Finding provide strong evidence of the effectiveness of modified

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			Attrition: N = -3 (2.9%)				understanding and acceptance of others; n=17 compassion and acceptance to children; n=12 improving relationships with children SIP: n=10 program time; n=9 home practices; n=18 benefit more people	MT in the mental health maintenance approach for teachers. The study provides a reliable method for balancing the high stress experienced by teachers in reducing the likelihood of psychological distress and burnout. **Feasibility:** Low cost shows great reliability and validity.

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Table A3

Synthesis Table

Study (Author, Year)	**Matiz et al., (2020)**	**Jennings et al., (2017)**	**Roeser et al., (2022)**	**Simonsson et al., (2021)**	**Dave et al., (2020)**	**Montero-Marin et al., (2021)**	**Ma et al., (2017)**	**Canby et al., (2020)**	**Luong et al., (2019**	**Cheng et al., (2022)**
Design/LOE	LQ/IV	CRT/V	RCT/V	RCT/V	LQ/IV	RCT/V	RCT/V	MM/III	MM/III	MM/III
Sample										
N Subjects	58	224	29	177	236	206	40	96	163	70
Median age	51	40	41	21	49	39	P = 0.56	40	N/A	31
Job	T	T	T	S	T	T	P	P	T/S	T
Country										
USA		X	X		X			X		

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Germany									X	
United Kingdom				X		X				
China							X			X
Italy	X									
Setting										
Controlled environment	X	X	X	X	X		X		X	
Un-controlled environment						X		X		X
Intervention										
Independent variables										
MP	X	X	X	X	X	X		X	X	X
DB							X			

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Dependent variables										
TWB	X	X	X		X	X			X	X
SWB				X					X	
PWB							X	X		
Measuring tools										
CO			X							
CLASS		X								
CLASS-S			X							
DASS								X		
DASS-21										X
DPS		X								
ERQ		X								
ES								X		

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ESS-MBI			X							
FFMQ	X	X	X					X		
FFMQ-SF						X				
FFMQ-24					X					
FIMP								X		
GAD-7		X				X				
HADS	X									
MAIA										
MBI-ES	X					X				
MBEB			X							
MBI-GS										X
MBI			X		X				X	
MBOI		X								

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MTS										X
NCT							X			
NMGS			X							
PANAS							X			
PHQ-9		X				X				
PROMIS		X		X	X					
PSS		X				X				
PWB	X									
QCAE	X									
SCT							X			
SCF-SF					X	X				
TOHW			X							
TRI-19								X		

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TS			X							
TSES		X								
TUS		X								
WAI								X		
WLEIS										X
Framework	SC-T	HBM	SC-T TOC	HBM	HBM	HBM	HBM	HBM	HBM	HBM
Feasibility	CE/TE	CE/TE	CE/TE	CE	CE	CE	CE	CE/TE	CE/TE	CE/TE
Outcomes/Findings										
Mindfulness Practices improved Well-being (Yes/No)	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑

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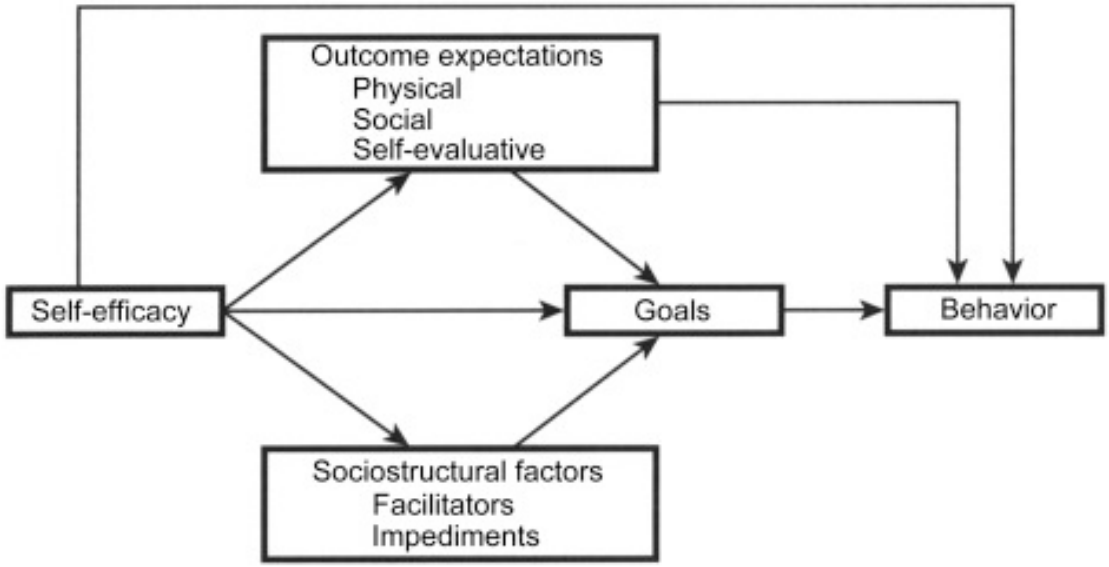
Appendix B

Models and Frameworks

Figure B1

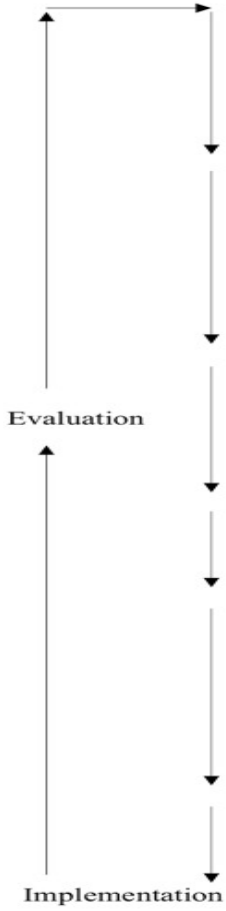
Social Cognitive Theory



(Social Cognitive Theory, 2015)

Figure B2

Intervention Mapping Framework

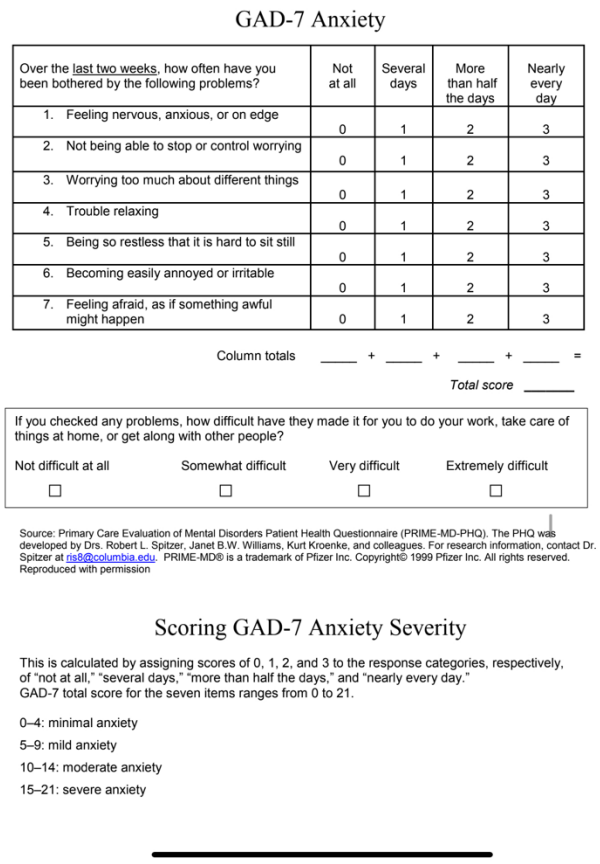


Step	Tasks
Step 1: Logic Model of the Problem	• Establish and work with a planning group • Conduct a needs assessment to create a logic model of the problem • Describe the context for the intervention including the population, setting, and community • State program goals
Step 2: Program Outcomes and Objectives – Logic Model of Change	• State expected outcomes for behavior and environment • Specify performance objectives for behavioral and environmental outcomes • Select determinants for behavioral and environmental outcomes • Construct matrices of change objectives • Create a logic model of change
Step 3: Program Design	• Generate program themes, components, scope, and sequence • Choose theory- and evidence-based change methods • Select or design practical applications to deliver change methods
Step 4: Program Production	Refine program structure and organization • Prepare plans for program materials • Draft messages, materials, and protocols • Pretest, refine, and produce materials
Step 5: Program Implementation Plan	Identify potential program users (implementers, adopters, and maintainers) • State outcomes and performance objectives for program use • Construct matrices of change objectives for program use • Design implementation interventions Implementation
Step 6: Evaluation Plan	• Write effect and process evaluation questions • Develop indicators and measures for assessment • Specify the evaluation design • Complete the evaluation plan

(Fernandez et al., 2019)

Figure B3

GAD – 7 Measuring Tool



GAD-7 Anxiety

Over the last two weeks, how often have you been bothered by the following problems?	Not at all	Several days	More than half the days	Nearly every day
1. Feeling nervous, anxious, or on edge	0	1	2	3
2. Not being able to stop or control worrying	0	1	2	3
3. Worrying too much about different things	0	1	2	3
4. Trouble relaxing	0	1	2	3
5. Being so restless that it is hard to sit still	0	1	2	3
6. Becoming easily annoyed or irritable	0	1	2	3
7. Feeling afraid, as if something awful might happen	0	1	2	3

Column totals _____ + _____ + _____ + _____ =

Total score _____

If you checked any problems, how difficult have they made it for you to do your work, take care of things at home, or get along with other people?

Not difficult at all ☐ Somewhat difficult ☐ Very difficult ☐ Extremely difficult ☐

Source: Primary Care Evaluation of Mental Disorders Patient Health Questionnaire (PRIME-MD-PHQ). The PHQ was developed by Drs. Robert L. Spitzer, Janet B.W. Williams, Kurt Kroenke, and colleagues. For research information, contact Dr. Spitzer at rls8@columbia.edu. PRIME-MD® is a trademark of Pfizer Inc. Copyright© 1999 Pfizer Inc. All rights reserved. Reproduced with permission

Scoring GAD-7 Anxiety Severity

This is calculated by assigning scores of 0, 1, 2, and 3 to the response categories, respectively, of "not at all," "several days," "more than half the days," and "nearly every day."
GAD-7 total score for the seven items ranges from 0 to 21.

0–4: minimal anxiety

5–9: mild anxiety

10–14: moderate anxiety

15–21: severe anxiety

(ADAA, n.d.)

Appendix C

Qualitative Results, Post-Survey and Brochure

Figure C1

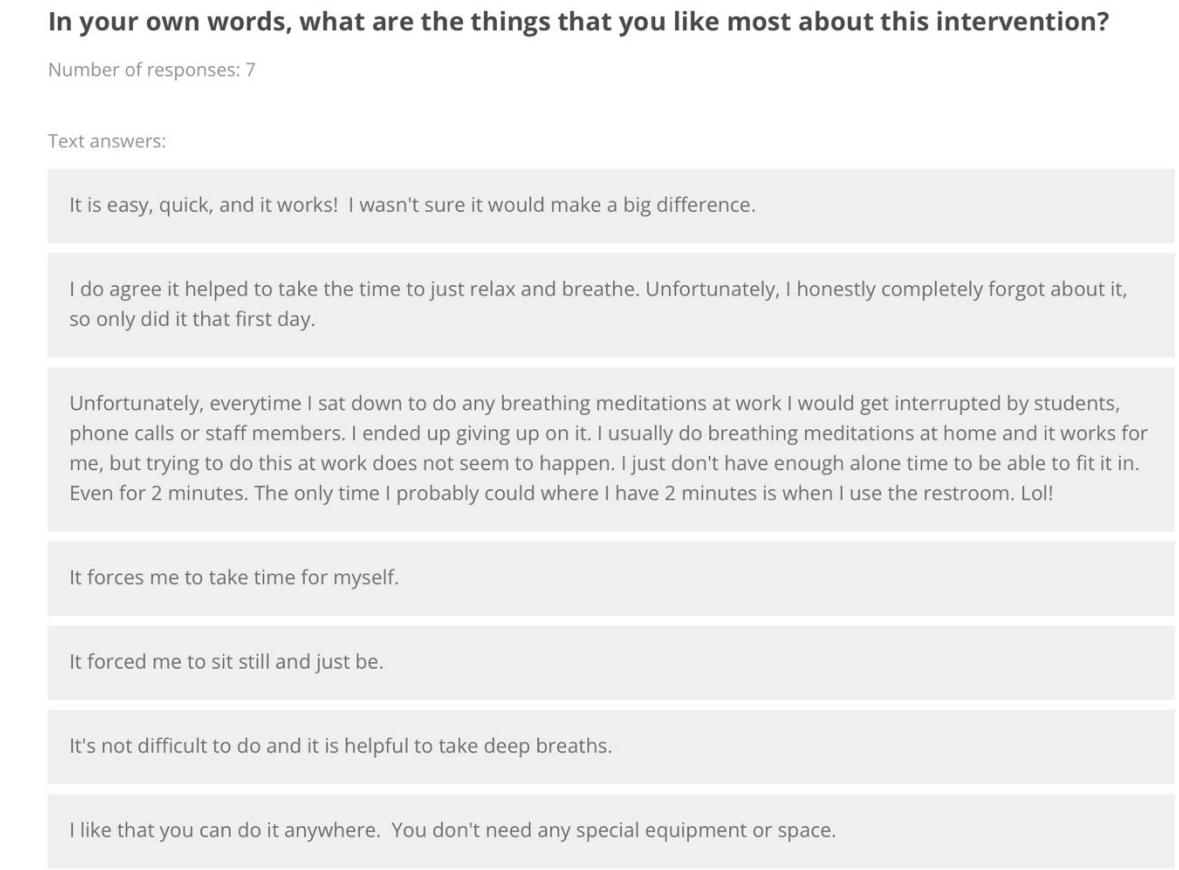
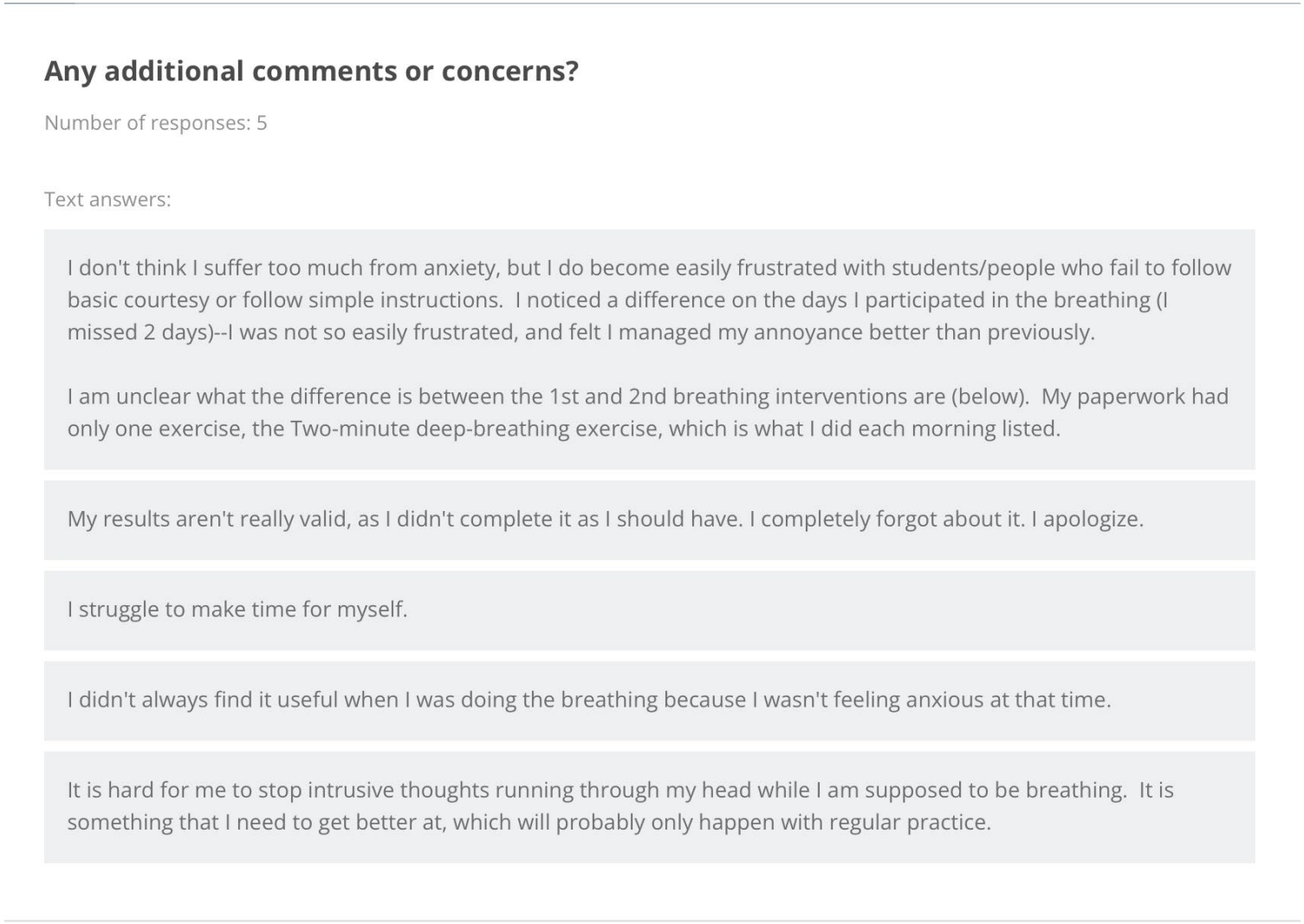


Figure C2



Any additional comments or concerns?

Number of responses: 5

Text answers:

I don't think I suffer too much from anxiety, but I do become easily frustrated with students/people who fail to follow basic courtesy or follow simple instructions. I noticed a difference on the days I participated in the breathing (I missed 2 days)--I was not so easily frustrated, and felt I managed my annoyance better than previously.

I am unclear what the difference is between the 1st and 2nd breathing interventions are (below). My paperwork had only one exercise, the Two-minute deep-breathing exercise, which is what I did each morning listed.

My results aren't really valid, as I didn't complete it as I should have. I completely forgot about it. I apologize.

I struggle to make time for myself.

I didn't always find it useful when I was doing the breathing because I wasn't feeling anxious at that time.

It is hard for me to stop intrusive thoughts running through my head while I am supposed to be breathing. It is something that I need to get better at, which will probably only happen with regular practice.

Figure C3

Educational Brochure

B.R.E.A.T.H.E.

Balancing Relaxation and Easing Anxiety Through Healing Exercises

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References available upon request

The National Education Association survey found:

1) Anxiety disorders make up one of the most common psychiatric disorders (Sadock et al., 2015).
2) **That burnout is a top rating issue with educators.**
   a. 90% found this a major issue.
   b. 55% considered leaving the field (Will, 2022)
3) A RAND report found **73% of teachers feel frequent job-related stress**, 28% have symptoms of depression and 59% reported burnout (Will, 2022).
4) It was reported that there were 9600 teaching positions open in Arizona for the 2022-2023 school year. After one month, only 27% of the teaching positions were filled (Orly, 2022).

Just B.R.E.A.T.H.E. – Anxiety Management in Teachers

What is anxiety?

- Anxiety manifests in feelings, which are often: worry, fear, or unease.
- Anxiety arises from situations or circumstances of uncertainty and might experience a sense of nervousness, restlessness, or tension.

Symptoms

- Headaches
- Chest tightness
- Upset stomach
- General restlessness/discomfort

Tip: You can always seek a mental health provider.

(Sadock et al., 2015)

How does it affect me?

- It can lead to stress, affect your job, as well as relationships with family and friends.

What can I do about it?

- Here are a few options but explore which choice is best for you:
  - Therapy
  - Medication
  - Or a Combination of both
  - Independent exercises

Two-minute deep-breathing exercise:

Step 1: Find a quiet and safe area.

Step 2: Use your phone, watch, or anything available and set it to two minutes.

Step 3: Close your eyes and focus on your body's position.

Step 4: Breathe in for three to five seconds and breathe out for five to seven seconds if you can.

Step 5: Slowly open your eyes and smile. Reflect on maintaining a positive mindset.

Generalized Anxiety Disorder-7 (GAD-7)

This is a highly reliable and valid screening tool to assess for anxiety symptoms.

Instructions:

- First, scan the GAD-7 QR code and fill out the assessment questionnaire.
- Second, complete breathing instructions 2 times a day for 2 weeks.
- Lastly, scan the survey QR code.

GAD-7

Post Project Survey