A Trauma-Informed Intervention Using Mindfulness to Improve Early Childhood Classroom Environments

Heather A. Ryan

Arizona State University

Table of Contents

Abstract

Research has shown adverse childhood experiences (ACEs) have a lifelong negative impact on a person's physical, mental, and social well-being. ACEs refer to experiences related to abuse, household challenges, or neglect that occur before the age of 18. Some of the effects of ACEs include anxiety, depression, increased stress, increase in high-risk behaviors, and early death. Mindfulness practices have been shown to be an effective tool in reducing some of these symptoms. In looking for ways to prevent or mitigate the effects of ACEs, it is important to provide tools and resources to the adults taking care of children including; parents, guardians, and teachers. The purpose of this evidence based project (EBP) was to evaluate mindfulness and classroom environments after the implementation of a mindfulness intervention. The intervention consisted of a three day training followed by four weeks of mindfulness practice prior to beginning the school day. Ten preschool and Early Head Start teachers from seven classrooms at a school in inner city Phoenix participated in the project. Utilizing the Five Factors Mindfulness Questionnaire pre and post intervention, a paired sample *t*-test showed a significant increase in two factors of mindfulness. The CLASS tool was used to assess classroom environment pre and post intervention and showed significant improvement in five classes. These findings support ongoing mindfulness training and practice for preschool and Early Head Start teachers to improve classroom environments.

Keywords: adverse childhood experiences, mindfulness, classroom environment, stress

Chapter 1

Adverse childhood experiences (ACEs) are traumatic or chronically stressful life events, harmful to children, usually caused by their parent or guardian. These include verbal, physical, sexual abuse and neglect, substance abuse, violence in the home, criminal activity, and mental illness related issues (Felitti et al., 1998). Most of these issues stem from poor coping on the part of the adult(s) in the home. Often times the adult was the recipient of the same behavior when he/she was a child, and failed to develop adaptive coping skills into adulthood. Thus, a cyclical pattern of abuse and neglect tends to continue generation after generation (Kuffer, Thoma, & Maercker, 2016).

Kaiser Health System and the Centers for Disease Control (Felitti et al., 1998) completed a landmark study looking at ACEs and various lifelong physical and mental health challenges. A stepwise relationship was found between number of ACEs and risks for poor health and wellbeing outcomes. The greater number of ACEs a person reported directly correlated to an increase in risk for several different negative outcomes including depression, increased stress, increase in suicidality, addiction issues, heart disease, cancer, diabetes, and early death. As a result, health professionals began to reconsider the ways to think of and address childhood trauma. Knowing the effects of childhood trauma are so pervasive has caused greater urgency in finding ways to prevent and treat the various manifestations of it. Many now acknowledge this as a public health crisis. Because trauma affects so many areas of life, it has implications for education, health care, mental health care, justice, and general public safety.

Interventions centering on mindfulness have come to the forefront of the conversation around how childhood trauma impacts health and wellbeing. New research has implicated that

trauma, especially in early childhood, builds pathways in the brain that work to help that person survive in chronic stressful situations but often become maladaptive later in life. Mindfulness practices have been shown to be effective for rewiring these pathways towards healthier patterns, mitigating the risks associated with ACEs. Mindfulness can be defined as "an individual's innate ability to be aware of what is happening internally and externally with open curiosity and without judgement" (Perry-Parrish, Copeland-Linder, Webb, & Sibinga, 2016).

Mindfulness instruction began with Jon Kabat-Zinn's (1992) curriculum called mindfulness-based stress reduction or MBSR, derived from Buddhist meditation practices. MBSR was originally developed for people suffering from chronic pain and commonly used to treat stress and anxiety symptoms (Kabat-Zinn, 1992). The goal of mindfulness training is to learn to focus one's attention on the present experience while letting go of any negative, self-critical thoughts (Perry-Parrish, Copeland-Linder, Webb, & Sibinga, 2016). Using mindfulness to react to difficult experiences has been thought to decrease stress, improve psychological functioning and increase positive coping (Perry-Parrish, Copeland-Linder, Webb, & Sibinga, 2016). Additionally, mindfulness has been shown to increase empathy and assist in improving relationship happiness (Sawyer Cohen & Semple, 2010).

The project presented in this paper focuses on using mindfulness training for early childhood teachers that are at high risk for ACEs. Mindfulness interventions foster listening to others with full attention without judgement, encourage compassion and a sensitivity to the needs of others which are critical skills to impart to our teachers. Apart from parents or guardians, teachers spend the most time with children throughout the day, therefore it is imperative that they have healthy self-regulation tools.

Research on mindfulness and teachers is emerging. Frank, Jennings, and Greenberg (2015) showed that mindfulness encourages self-awareness and a sense of calm, which can help teachers maneuver the different challenges that arise throughout their day. Crain, Roser, & Schonert-Reichl (2017) discuss the potential for mindfulness to decrease feelings of stress throughout the day and hopefully decrease burnout rates among teachers. They report improvement in teachers' sleep, decrease in negative moods throughout the day and a decrease in rumination about work while at home after participating in their mindfulness program .

Problem Statement

Wanting to further assess how mindfulness practices could impact teachers in an early childhood setting, Early Head Start was identified as an area for opportunity. The director of a school in downtown Phoenix, Arizona recognized the potential benefit to a mindfulness intervention for the teachers in her program, including improving skills of self-regulation, coping, and conflict management along with decreasing emotional reactivity. As mindfulness has been indicated to be effective in improving the above skills (Sharp, & Jennings, 2015), a mindfulness-based intervention was developed for implementation in this setting. This led to the following PICOT question: Compared to current professional development training (not based in mindfulness), does mindfulness training and associated practices help to (a) increase mindfulness in preschool and Early Head Start teachers and (b) improve their classroom environments?

Search Sources and Processes

Multiple databases were utilized in order to complete a comprehensive and exhaustive search of the literature regarding mindfulness as it relates to teachers of children ages 0-4, specifically. Four major medical databases made up the majority of the search process including PsycINFO, CINAHL, Cochrane, and PubMed. Literary search terms used were mindfulness, preschool and teacher. These searches were further limited by specific parameters: Full text, English language, and peer reviewed journals. Only literature from the past five years was included in this inquiry.

Using the search terms ‘mindfulness’ and ‘teacher’ and ‘preschool’ gave 13 results on PsycINFO. Search terms ‘mindfulness’ and ‘teacher’ produced 27 results on CINAHL. The Cochrane database was consulted using the terms ‘mindfulness’ and ‘teacher’ resulting in 58 trials. The last database that was consulted was PubMed with the search terms ‘mindfulness,’ and ‘teachers’ resulting in 69 different results. Additional studies were hand-searched based on how frequently they were referenced in studies reviewed. One landmark study was consulted due to the incredible impact it has had on this area of research.

A total of 167 studies were reviewed. Thirty were included for critical appraisal and 10 were chosen for the purposes of this literary review. Excluded studies were either not specific to the topic being studied, did not provide substantial evidence, or did not provide for enough clarity in their data. Valuable studies included here outline the impact that mindfulness has for teachers and the children they care for daily.

Critical Appraisal and Synthesis

Ten studies chosen for this literature review examine the effectiveness of mindfulness in teachers (Appendix A). Of these ten studies, five are randomized controlled trials; one is a quasi-experimental study; two are cross-sectional/ correlational studies; two are qualitative studies (Appendix B). Eight of these studies focused on teachers, and two of these studies was focused on a general adult population. A wide variety of tools were used for evaluation of the different populations represented in this literature. The majority of the tools used in this literature are ones that have been widely accepted and shown to be valid. Additionally, the few tools used that did not have the same level of reliability were discussed by the researchers to have appropriate Cronbach alpha testing with results between (0.70-0.91).

Mindfulness was evaluated in many different contexts and formats throughout all of the studies represented here (Appendix A). Although the concept of mindfulness was the same throughout all of the research, the studies summarized the effectiveness of certain mindfulness training programs or yoga therapies. None of the mindfulness training programs were the same, although three reported utilizing concepts from Mindfulness Based Stress Reduction created by Kabat-Zinn (1992). While proving a benefit to understanding a wide variety of evidence-based mindfulness interventions for our purposes, it was difficult to determine a specific protocol or intervention effective to train teachers.

The literature analysis confirmed interventions centered in mindfulness combat the effects of trauma including anxiety, depression, and increased stress, in addition to improving teacher well-being (Molloy Elreda, Jennings, DeMauro, Mischenko, & Brown, 2018; Becker, Gallagher, & Whitaker, 2017; Harris, Jennings, Katz, Abenavoli, & Greenberg, 2015; Jennings, Frank, Snowberg, Coccia, & Greenberg, 2013). Links were seen between teachers' social and

emotional wellbeing, classroom environment, and student academic outcomes. Teachers' high levels of stress were associated with behavioral interventions in the classroom that were reactive instead of proactive, strained teacher/ student relationships, and poor classroom climate (Molloy Elreda, Jennings, DeMauro, Mischenko, & Brown, 2018). For instance, Jennings et al.(2013) report a correlation between teacher stress and student behavior, stating that a teacher's positive attitude in the classroom reduces problem behaviors and increases student productivity.

Conclusion

Evidence indicates teachers should have a high level of social and emotional competence in order to manage the social and emotional dynamics of the classroom effectively. Essentially, these studies imply the need for teachers to obtain skills of social and emotional competence before imparting maladaptive behaviors to their students. These important observations suggest that one effective way to help a child grow and develop is to enable the adults in their life acquire the skills needed for social and emotional competence. Mindfulness training has been shown in prior work to improve these skills.

Chapter 2

Purposes/ Aims

A mindfulness intervention was developed for teachers that incorporated known effective practices, while also being tailored to the needs of stakeholders. The intervention included a three day professional development training for teachers followed by four weeks of mindfulness practice. Teacher mindfulness qualities and classroom environment were measured pre and post-intervention to evaluate our project's effectiveness.

Conceptual Framework and EBP Model

Polyvagal Theory was the conceptual framework that guided the mindfulness intervention. It is an explanatory model used to understand human behavior and stress. The model describes the connections between neurophysiological patterns of autonomic regulation and how those are expressed as emotions and social behavior (Sullivan, Erb, Schmalzl, Moonaz, Taylor, & Porges, 2018). Mind-body therapies, like mindfulness, encourage somatic awareness in conjunction with nonjudgement, non-reactivity, curiosity, and acknowledgment in order to re-assess our current situation and modify our physical/ emotional reaction to it. This has been found to increase adaptability, self-regulation, and resilience, which can lead to an increase in wellbeing (Appendix C).

In addition, the Iowa Model of Evidence Based Practice (EBP) was utilized to provide an implementation framework (Appendix D). Steelman (2016) describes the Iowa Model as a pragmatic and systematic approach to evidence based practice demonstrating a step by step methodological approach to the EBP process. With the school director, possible issues (triggers) were reviewed and discussed if they are a priority for the organization. The next step included the review of the literature, as was completed in this paper, prior to developing and implementing

the evidence-based intervention. The final step included an evaluation of the project (Doody, & Doody, 2011).

Methods

This evidence-based project was conducted with Early Head Start and preschool teachers in an underserved community in downtown Phoenix, Arizona. The director of the Early Head Start program described a need for this intervention, reporting many of her teachers came from this same underserved community, were at high risk for childhood trauma, and were exhibiting challenging behaviors related to poor self-regulation and coping. Additionally, the culture of developing leadership skills and healthy habits were discussed. For example, many teachers had already exhibited motivation to participate in team health challenges by self-initiating a weight loss and exercise goal.

After receiving approval from Arizona State University Institutional Review Board (Appendix G), the project began with a three-day professional development program focused on areas of trauma, mindfulness, positive discipline, and self-regulation strategies. This program was previously developed for a grant through the Kohls Foundation and has been implemented in many schools throughout the valley. Instructional material was infused with mindfulness practices throughout the day with the addition of yoga instruction the third day of the training.

Teachers then participated in four weeks of mindfulness practice that included yoga, meditation, and deep breathing for 10-15 minutes prior to their work day. Mindfulness was led by both an instructor certified in mindfulness and an electronic app-based guided meditation. Teachers were asked to participate in mindfulness practice at least three of the five work days for four weeks. All were given the option of doing mindfulness exercises at home for 10-15 minutes prior to their work day via a mindfulness cellphone app. Participation was tracked via an

anonymous log sheet utilizing participant's unique four digit code . The same four digit code was utilized on all written materials, keeping responses and participation anonymous.

Demographic information was recorded for the teachers pre-intervention. Pre and post-intervention data included ACE scores, the Five Factor Mindfulness Questionnaire (FFMQ) and qualitative short-answer questions to measure mindfulness and teacher's understanding of and experience with this mindfulness intervention. Adverse childhood experiences (ACE) scores were measured using an assessment based on 10 items related to abuse, household challenges, and neglect. Classroom environment was measured pre and post-intervention via the Classroom Assessment Scoring System (CLASS) tool which is an ongoing observational assessment used for teacher professional development throughout Arizona, and currently utilized for both the preschool and Early Head Start classrooms. All tools are described in detail below.

The ACE tool (Appendix H) was utilized more specifically for our purposes, to evaluate exposure of the teachers to childhood trauma. It contains 10 items asking about divorce, mental illness, substance abuse, physical abuse, food insecurity, sexual abuse, neglect, verbal abuse, and domestic violence (Felitti, 1998). Test, re-test reliability testing was done by Dube, Williamson, Thompson, Felitti, and Anda (2004), which showed a weighted kappa coefficient of .64 (95% CI, .36–.60). Its validity is currently widely accepted in its field.

The Five Factors Mindfulness Questionnaire (FFMQ) (Appendix I) was used to measure mindfulness. This tool is 39-item instrument, using a Likert-type scale (1-5), with answers ranging from "never or very rarely true" to "very often or always true." The five factors designated here which are used to define dimensions of mindfulness include: observing, acting with awareness, describing, non-judging of inner experience, and non-reactivity to inner experience (Baer et al. 2006). Park, Reilly-Spong, and Gross (2013) conducted reliability and

validity tests for this tool. They state in their work that this tool shows an internal consistency seen by a Cronbach's alpha for all five subscales between 0.67 to 0.93.

The CLASS tool is already currently utilized in preschool and Early Head Start systems in multiple states. It was created to be a professional development instrument which could be utilized by schools to assess teacher performance related to three domains; Emotional Support (ES), Classroom Organization (CO), and Instructional Support (IS) and for the infant classroom, Responsive Caregiving (RC). At the project site, CLASS evaluations are conducted twice a year, one in the beginning of the first semester and one towards the beginning of the second semester. Experts conduct this evaluation and provide the results to the school and the aggregated data was shared at two time points for the project. Support for the use of this tool comes from the fact that it was derived out of foundation steeped in early childhood theory and because of the fact that it is widely used for quality testing throughout many states, including Arizona (Perlman, Falenchuk, Fletcher, McMullen, Beyene, & Shah, 2016). Additional validity and reliability information for this tool was otherwise not found.

Qualitative short-answer questions were asked pre and post-intervention. Pre-intervention questions covered: How do you define mindfulness? When you feel upset, describe your usual immediate response? What do you hope to learn from this experience? Post-interview questions are as follows: How would you define mindfulness after going through this training? Has your response to feeing upset changed at all after practicing mindfulness? If so, please describe how it has changed? What do you feel has been the most important thing you have taken away from this experience? What challenges did you face while participating in this study (if any)? Did you complete all four weeks of mindfulness practice before work at least three days a week, Monday-

Friday for 5-10 minutes? If you did not, please state what barriers you had to completing mindfulness practice.

Prior to running analysis, normality testing was done using Kolmogorov-Smirnov statistic in addition to evaluating Stem-and-Leaf plots for all five aspects of mindfulness in the FFMQ. Based on these results, a paired samples *t*-test was determined to be appropriate for evaluation of this data. SPSS was utilized to run this statistical analysis. Due to the relatively small sample size, demographic and ACE questionnaire data were evaluated by adding up results to address frequency. Results of the CLASS tool were compared pre and post-intervention and then evaluated per the tool's written criteria for 'low,' 'middle,' or 'high' ratings. Qualitative data was evaluated by spreading out all question/ answers forms, pulling out themes from answers given by making a check-list of all responses and checking for frequency. All answers and themes reviewed with statistical consultant for validity and reliability.

Outcomes/ Results

Twenty-four teachers participated in the 3-day intervention training. Seventeen teachers completed all surveys pre and post-intervention. Ten out of the 24 teachers participated in mindfulness practices in the four weeks following, for a total participation rate of 42%. Twenty-three teachers reported being female, all but two teachers self-identified as Hispanic, one as white, the last identified as African American/ Asian or Pacific Islander. The majority of the teachers reported being between 23-32 years old, three reported being 33 or older and two identified as being between 18-22. Five teachers reported no previous experience with mindfulness, eight stated they had tried it one time prior, six mentioned practicing mindfulness occasionally. Seven teachers had between 0-2 years of experience, six had 3-4 years of experience, three reported having 5-6 years of experience teaching in a preschool. Four teachers

reported a 0 ACE score, seven teachers reported having between 1-3 ACEs. Seven teachers reported having an ACE score of 6 or above on the ACE questionnaire.

A paired sample *t*-test was run on FFMQ data from teachers that completed the three-day training and completed all surveys pre and post-intervention regardless of participation in mindfulness practice. Pre to post-intervention analysis of mindfulness factors were seen as; observing pre-intervention (M=24.47, SD=4.53) to post-intervention (M=25.24, SD=7.22), ($t(16)$=-.48, p= .64); describing pre-intervention (M=23.82, SD=2.07) to post-intervention (M=27.65, SD=5.29), ($t(16)$=-3.53, p= .003); awareness pre-intervention (M=24.18, SD=4.82) to post-intervention (M=26.24, SD=3.78), ($t(16)$=-1.37, p= .19); nonjudging pre-intervention (M=24.82, SD=4.75) to post-intervention (M=27.82, SD=3.99), ($t(16)$=-1.58, p= .13); nonreactivity pre-intervention (M=19.91, SD=3.39) to post-intervention (M=21.41, SD=3.59), ($t(16)$=-2.46, p= .03) (Appendix E).

Qualitative data showed a greater depth of understanding mindfulness by the teachers post-intervention as seen through descriptions of mindfulness going from one-two words, to descriptive, more involved statements (i.e. “Just knowing my emotions and how I feel in certain situations.” and “being in the present.”). Benefits experienced from this intervention as described through qualitative short answer questions included: Awareness of importance of self-care, increased awareness of emotions, improved ability to take a deep breath and pause before acting, improved ability for being in the present moment, and increased ability to destress oneself.

CLASS scores for the preschool classroom pre-intervention in the three sub-scales are as follows (ES=4.9, CO=3.2, IS=2.5), which increased post-intervention to (ES=6.81, CO=6.33, IS=3.58). Toddler classroom scores went from pre-intervention (ES=4.8, CO= 3.65, IS=3.55), to (ES=5.50, CO=4.0, IS=4.0) post-intervention. Infant classroom scores went from pre-

intervention (RC=3.38), to post-intervention (RC=4.5). Classroom environments improved in all three, infant, toddler, and preschool classrooms with the preschool room showing the greatest improvement increasing from 'middle' to 'high' range in scores, whereas the infant and toddler classrooms remained at a 'middle' rating (Appendix F). Preschool and toddler classroom values are correlated with a star rating through an organization called First Things First, as they evaluate preschool programs throughout Arizona (Appendix F).

Discussion

Teachers in this program did report having a significant number of ACEs with 7 teachers reporting an ACE score of 6 or greater. This was consistent with our prediction for this population. Significant increases were seen in the data on the describing and non-reactivity factors of mindfulness whereas the other three domains saw an insignificant increase in scores. This significant increase in describing and non-reactivity correlated with qualitative data findings which suggested that many teachers found this intervention to increase ability to pause and take a deep breath before reacting and improved ability to be in the present moment. It is possible also, that as teachers, skills of describing are easier to hone and so are adapted to earlier than the others.

The sample for this project was homogenous with most of the teachers reporting being Hispanic, female, and between the ages of 23-32 years old. This makes it difficult to generalize project findings to other populations, although the teaching profession is still majority female. As this community is largely Hispanic, it may be indicative of mindfulness interventions with this population.

While an improvement in CLASS scores was seen, many factors may explain the change. The preschool classroom had a different person completing the CLASS tool pre and post-

intervention whereas the toddler and infant classroom had the same examiner. CLASS results showed an increase in all three preschool, toddler, and infant classrooms. This increase was highest in the preschool classroom. The preschool classroom had the highest attendance through all portions of this project including mindfulness practice. Additionally, they experienced no turnover whereas the Early Head Start program had both a new director and subsequently, a large teaching staff turnover prior to the second CLASS evaluation period. Teachers expressed increased stress throughout this time because of the change in director. The new director began work during the last week of this intervention and was available throughout dissemination of results. Stability was seen in the preschool classroom with no change in staff throughout this process. This suggests that classroom environment is most affected by teachers who participate in mindfulness training in addition to mindfulness practice. Additionally, it is difficult to determine the full effect on classroom environment for the toddler and infant classrooms as it is unclear how many of those teachers had been present for the EBP. It is possible that without this staff turnover, those classrooms would have experienced a larger increase in scores as well.

Qualitative data provided a depth in understanding this experience for these teachers. Responses such as, “I am important, my health and mental health is my priority to succeed in other aspects of my life (personal and professional),” and “I catch myself breathing before acting,” give additional meaning to the impact of mindfulness in this population. Verbal feedback from the teachers throughout this program provided understanding of other ways in which some teachers were utilizing mindfulness outside of the suggestions of this project. Some reported using the app in the evenings at home with their children and to help them sleep at night. These same individuals reported an increase in patience with their children, and improved behavior in

their children in addition to improved sleep for both themselves and their children. One mentioned using it at home with a spouse as well, reporting increased calm for them both.

As teachers were required to attend professional development, one strength of the project included 100% participation from teachers with paid time through their work. However, the extended mindfulness practice proved to be a barrier as it required teachers to arrive 10-15 minutes early every day. Some reported having issues with transportation or with their children needing early childcare. A few teachers were able to do mindfulness before work by utilizing the cell phone app but others stated it was difficult to even take this time with the chaos of the morning and demands on their time with their children at home. Others explained that it was difficult to participate in the mindfulness practice as it was a new habit they had not built into their schedule prior to this intervention.

Chapter 3

There are a number of implications for the outcomes of this data. An improved ability to pause and take a deep breath before reacting, which was found in the teachers' qualitative data post-intervention survey results, can lead to improved self-regulation and improved ability to be emotionally supportive of others. This in turn can lead to improved relationships between teachers and their students as well as between teachers and their coworkers. Increased awareness of one's emotions, improved ability to "destress" oneself, and improved ability for being in the moment, which were also found in our data, all work to help teachers have a calmer demeanor and less reactivity (Becker, Gallagher, & Whitaker, 2017). By instilling mindfulness in teachers, they may develop better skills to manage the emotions of the children in their classroom.

An increase in mindfulness can also lead to an improvement in classroom environment, as was seen in our data from the CLASS tool. Improvement in mindfulness in teachers might help lead to a more cohesive team and potentially greater teacher retention, which improves stability of the classroom and workplace. The CLASS tool ratings are correlated to sources of grant funding through organizations such as First Things First. CLASS scores are associated with a star rating that is published and accessible to parents looking for a preschool or Early Head Start environment for their children. An improvement in CLASS scores, therefore, can be directly linked to greater sustainability through higher state rating and higher demand for enrollment.

Mindfulness cell-phone applications were utilized in this study in an attempt to familiarize this method and modality of mindfulness practice for teachers. Cell-phone applications are easy to use, and many have free meditations to follow, making continuing mindfulness practice after this intervention a possibility for those that may not have time or

money to find an outside resource. This study population consisted primarily of Latina women ages 23-27, making it difficult to generalize study findings to other populations. Additional research is needed to formulate best practice as it relates to mindfulness with early childhood educators. Study findings do point to the fact that mindfulness can improve teacher self-regulation, lower teacher stress, and improve classroom environments. This, in conjunction with ease of usability, lead us to conclude that mindfulness practice should be encouraged for early childhood teachers in the workplace.

Conclusions

Research on mindfulness in relation to teachers is lacking in cohesive program structure. However, literature is consistent in reporting an increase in mindfulness to improve many aspects of teacher wellbeing in addition to relationships between teacher and student and classroom organization. These findings in the research are consistent with what was seen in the results of this evidence based project. Through the combination of training and practice, mindfulness increased in this teaching population. Additionally, an improvement in classroom environment scores were noted post-intervention. Qualitative data supported these results as well and provided for a greater depth of understanding of these findings.

Teachers expressed general acceptance of this program although some found it challenging to participate before work most days. Additional research is critical to discovering if there is a best practice mindfulness, professional development program that should be adopted by school systems. In general, these findings support the ongoing utilization of this EBP as a way of increasing mindfulness for teachers and affecting positive change in classroom environments.

References

Baer et al. (2008). Construct validity of the Five Facet Mindfulness questionnaire in meditating and nonmeditating samples. *Assessment*, 15(3), 329-342. doi: 10.1177/1073191107313003

Becker, B., Gallagher, K., & Whitaker, R. (2017). Teacher's dispositional mindfulness and the quality of their relationships with children in Head Start classrooms. *Journal of School Psychology*, 65(2017), 40-53.

Cormack, D., Jones, F., & Maltby, M. (2018). A "collective effort to make yourself feel better": The group process in mindfulness-based interventions. *Qualitative Health Research*, 28(1), 3-15. doi:10.1177/1049732317733448

Crain, T. L., Schonert-Reichl, K., & Roeser, R. W. (2017). Cultivating teacher mindfulness: Effects of a randomized controlled trial on work, home, and sleep outcomes. *Journal of Occupational Health Psychology, 22*(2), 138-152. doi:10.1037/ocp0000043

Doody, C. & Doody, O. (2011). Introducing evidence into nursing practice: Using the IOWA model. *British Journal of Nursing*, 20(11), 661-664.

Dube, S., Williamson, D., Thompson, T., Felitti, V. & Anda, R. (2004). Assessing the reliability of retrospective reports of adverse childhood experiences among adult HMO members attending a primary care clinic. *Child Abuse & Neglect*, 28(7), 729-737.

Felitti, V. et al. (1998). Relationship of childhood abuse and household dysfunction to many of the leading causes of death in adults: The adverse childhood experiences (ACE) study. *American Journal of Preventative Medicine*, 14(4), 245-258.

Frank, J., Jennings, P., & Greenberg, M. (2015). Validation of the mindfulness in teaching scale. *Mindfulness*, 7, 155-163. doi:10.1007/s12671-015-0461-0

Gotink, R., Meijboom, R., Vernooij, M., Smits, M., & Hunink, M. (2016). 8-week Mindfulness Based Stress Reduction induces brain changes similar to traditional long-term meditation practice – A systematic review. *Brain and Cognition*, 108, 32-41. http://dx.doi.org/10.1016/j.bandc.2016.07.001

Harris, A., Jennings, P., Katz, D., Abenavoli, R., & Greenberg, M. (2016). Promoting stress management and wellbeing in educators: Feasibility and Efficacy of a school-based yoga and mindfulness intervention. *Mindfulness*, 7(1), 143-154. doi: 10.1007/s12671-015-0451-2

Jennings, P. (2015). Early childhood teacher's well-being, mindfulness, and self-compassion in relation to classroom quality and attitudes towards challenging students. *Mindfulness*, 6(4), 732-743. doi: 10.1007/s12671-014-0312-4

Jennings, P. A., Frank, J. L., Snowberg, K. E., Coccia, M. A., & Greenberg, M. T. (2013). Improving classroom learning environments by cultivating awareness and resilience in education (CARE): Results of a randomized controlled trial. *School Psychology Quarterly,* 28(4), 374-390. doi:10.1037/spq0000035

Kabat-Zinn, J., Massion, A., Kristeller, J., Gay Peterson, L., Fletcher, K., Pbert, L., Lenderking, W., & Santorelli, S. (1992). Effectiveness of a meditation-based stress reduction program in the treatment of anxiety disorders. *American Journal of Psychiatry,* 149(7), 936-943.

Kuffer, A., Thoma, M., & Maercker, A. (2016). Transgenerational aspects of former Swiss child laborers: Do second generations suffer from their parents' adverse early-life experiences? *European Journal of Psychotraumatology.* 7(1), 1-12.

Molloy Elreda, L., Jennings, P., DeMauro, A., Mischenko, P. & Brown, J. (2019). Protective effects of interpersonal mindfulness for teacher's emotional supportiveness in the classroom. *Mindfulness*. 10(3), 537-546.

Park, T. Reilly-Spong, M., & Gross, C. (2013). Mindfulness: A systematic review of instruments to measure an emergent patient-reported outcome (PRO). *Quality of Life Research*, 22(10), 2639-2659. doi:10.1007/s11136-013-0395-8

Perlman, M., Falenchuk, O., Fletcher, B., McMullen, E., Beyene, J., & Shah, P. (2016). A systematic review and a meta-analysis of a measure of staff/child interaction quality (the Classroom Assessment Scoring System) in early childhood education and care settings and child outcomes. *PLoS One*. 11(12), 1-33.

Perry-Parrish, C., Copeland-Linder, N., Webb, L., & Sibinga, E. (2016). Mindfulness-based approaches for children and youth. *Current Problems in Pediatric and Adolescent Health Care,* 46(6), 172-178.

Rhodes, A., Spinazzola, J., & van der Kolk, B. (2016). Yoga for adult women with chronic PTSD: A long-term follow-up study. *The Journal of Alternative and Complementary Medicine*, 22(3), 189-196. doi:10.1089/acm.2014.0407

Reiser, J. E., Murphy, S. L., & McCarthy, C. J. (2016). Stress prevention and mindfulness: A psychoeducational and support group for teachers. *Journal for Specialists in Group Work,* 41(2), 117-139. doi:10.1080/01933922.2016.1151470

Sawyer Cohen, J., Semple, R. (2010). Mindful parenting: A call for research. *Journal of Child and Family Studies,* 19(2), 145-151.

Saylor, L., McKenzine, G., & Cebuslski Sacco, C. (2018). Teacher-centered mentorship as meaningful professional Montessori development. *Journal of Montessori Research*. 4(2), 1-23.

Sharp, J. & Jennings, P. (2016). Strengthening teacher presence through mindfulness: What educators say about Cultivating Awareness and Resilience in Education (CARE) program. *Mindfulness*, 7(1), 209-218. doi: 10.1007/x12671-015-0474-8

Steelman, V. (2016). The Iowa Model. *AORN Journal*, 103(1), 5.

Sullivan, M., Erb, M., Schmalzl, L., Moonaz, S., Noggle Taylor, J., & Porges, S. (2018) Yoga therapy and polyvagal theory: The convergence of traditional wisdom and contemporary neuroscience for self-regulation and resilience. *Frontiers in Human Neuroscience,* 12(67), 1-15. doi:10.3389/fnhum.2018.000067.

Appendix A

Table 1

Evaluation Table

Citation	Conceptual Framework	Design/ Method/ Sampling (Grounded Theory, phenomenology, Narrative)	Sample/Setting (describe)	Major Variables Studied and Their Definitions	Measurement/ Instrumentation (focus group, 1:1, open-ended survey)	Data Analysis	Findings/ Themes	Level/Quality of Evidence; Decision for practice/ application to practice/ Generalization
Becker (2017) Teachers' dispositional mindfulness and the quality of their relationships with children in Head Start classrooms **Funding: 0**	Article proposed conceptual framework between study variables	**Design: COR S, CR S** **Purpose:** This study investigated mindfulness disposition in teachers and its association with quality of relationship between teacher and preschool aged children.	n= 1001 classroom teachers PA Head Start 550 lead teachers 451 assistant teachers 98% women 89% white 6% Hispanic	**IV**- dispositional mindfulness **DV-1** teacher/ child relationship **DV-2** depressive sx **DV-3** workplace stress	**IV- CAMS-R** **DV-1- STRS** **DV-2- CES-D** **DV-3- JCQ** One time, web based survey	Path analysis with robust (Huber-White) standard error estimates	All bivariate correlations between conflict, closeness, dispositional mindfulness, depressive symptoms, workplace stress significant ($p< 0.001$)	**Level IV** Findings support importance of mindfulness in improving quality of relationship between teachers/ students **Weakness:** May not be generalizable to all Head Start

Key: **MBI-** Mindfulness-based intervention, **SI-** Self- identified, **T-** Teacher, **TR-** Trainer/teacher, **S-** Student, **F**-Female, **M**-Male, **GT**- Grounded theory, **MI**- Mindfulness, **CR S-** Cross-sectional, **COR S**- Correlational study, **CON S**- Convenience sampling, **MOP**- Married or partner, **WMT-**Workplace mindfulness training, **EX**- Experience in years, **RWCT**- Randomized wait-list controlled trial, **E. Can**- European Canadian, **A. Can**- Asian Canadian, **E. AM**- European American, **A. AM**- Asian American, **AA**- African American, **NE**- North East, **DD**- Developmental Delay, **AU**- Autistic, **MBSR**- Mindfulness Based Stress Reduction, **PAD**- Positive Adult Development, **US DEIES**- US Department of Education Institute of Educational Sciences, **MAOT**- Medication assisted opioid treatment; **IV**- Independent Variable, **DV**- Dependent Variable

Citation	Conceptual Framework	Design/ Method/ Sampling (Grounded Theory, phenomenology, Narrative)	Sample/Setting (describe)	Major Variables Studied and Their Definitions	Measurement/ Instrumentation (focus group, 1:1, open-ended survey)	Data Analysis	Findings/ Themes	Level/Quality of Evidence; Decision for practice/ application to practice/ Generalization
Cormack (2018) A "collective effort to make yourself feel better": The group process in **MBI** **Funding**: None **Bias**: See weaknesses **Country**: England	Margaret A. Newman's theory of health as expanding consciousness	**Design**: **GT** **Purpose**: "This study aimed to develop a detailed theory of **MBI** group process utilizing a grounded theory methodology." Recruited through **MBI T, TR** by email or in person at mindfulness conferences.	Participants= **MBI S** (within last 18 mo.), **T, TR**. **n**=12 **MBI S n**=6 **MBI T n**=2 **MBI TR n**= 4 11 **SI** White British 1 **SI** White American 8=**F**, 4=**M** **Attrition: 0**	This study explored the group experience as it pertains to **MBI.** New **GT** was established to explain the experience of group **MBI** from the perspective of **S, T, TR.**	1:1 semi-structured interview 45-90 minutes long	Line by line open coding supported by theoretical notations and conceptual links between codes	Core category: the group as a vessel on a communal journey Higher order category: -charting the course -building and sailing -communal experience	**Level VI evidence**. **Weaknesses:** Homogenous and self-selected sample. Not from clinically complex sample. **Strengths:** Feedback received from **S**, **T**, **TR**, gives more well-rounded view of group **MBI**. Good insight for

Key: **MBI-** Mindfulness-based intervention, **SI-** Self- identified, **T-** Teacher, **TR-** Trainer/teacher, **S-** Student, **F**-Female, **M**-Male, **GT**- Grounded theory, **MI**- Mindfulness, **CR S-** Cross-sectional, **COR S**- Correlational study, **CON S**- Convenience sampling, **MOP**- Married or partner, **WMT-**Workplace mindfulness training, **EX-** Experience in years, **RWCT**- Randomized wait-list controlled trial, **E. Can**- European Canadian, **A. Can**- Asian Canadian, **E. AM**- European American, **A. AM**- Asian American, **AA**- African American, **NE**- North East, **DD**- Developmental Delay, **AU**-Autistic, **MBSR**- Mindfulness Based Stress Reduction, **PAD**- Positive Adult Development, **US DEIES**- US Department of Education Institute of Educational Sciences, **MAOT**- Medication assisted opioid treatment; **IV**- Independent Variable, **DV**- Dependent Variable, **(+)-** Positive, **(-)**- Negative, **R**- Relationship, **SIG-** Significant, **COR-** Correlation, **MP-**Mindful parenting, **PS-**Parental stress, **DEP-**Depression, **GMH-**General mental health, **DEC**-Decrease, **MH-** Mental health, **INC-**Increase, **CG-** Control group, **FU-**Follow-up, **IMP-**Improving, **SE**- self-efficacy, **ELE-**Elementary school, **P/S-** Preschool, **H/S-**High School, **SD**- Standard deviation, **ACE-** Adverse childhood events, **SR-**self report, **SSS-** small sample size, **QE,-**Quasi-experimental

Citation	Conceptual Framework	Design/ Method/ Sampling (Grounded Theory, phenomenology, Narrative)	Sample/Setting (describe)	Major Variables Studied and Their Definitions	Measurement/ Instrumentation (focus group, 1:1, open-ended survey)	Data Analysis	Findings/ Themes	Level/Quality of Evidence; Decision for practice/ application to practice/ Generalization
								potential work with mindfulness in a group setting. **Feasibility:** easily replicable design, good feasibility.

Key: **MBI-** Mindfulness-based intervention, **SI-** Self- identified, **T-** Teacher, **TR-** Trainer/teacher, **S-** Student, **F**-Female, **M**-Male, **GT**- Grounded theory, **MI**- Mindfulness, **CR S-** Cross-sectional, **COR S**- Correlational study, **CON S**- Convenience sampling, **MOP**- Married or partner, **WMT-**Workplace mindfulness training, **EX-** Experience in years, **RWCT**- Randomized wait-list controlled trial, **E. Can**- European Canadian, **A. Can**- Asian Canadian, **E. AM**- European American, **A. AM**- Asian American, **AA**- African American, **NE**- North East, **DD**- Developmental Delay, **AU**-Autistic, **MBSR**- Mindfulness Based Stress Reduction, **PAD**- Positive Adult Development, **US DEIES**- US Department of Education Institute of Educational Sciences, **MAOT**- Medication assisted opioid treatment; **IV**- Independent Variable, **DV**- Dependent Variable, **(+)-** Positive, **(-)**- Negative, **R**- Relationship, **SIG-** Significant, **COR-** Correlation, **MP-**Mindful parenting, **PS-**Parental stress, **DEP-**Depression, **GMH-**General mental health, **DEC**-Decrease, **MH-** Mental health, **INC-**Increase, **CG-** Control group, **FU-**Follow-up, **IMP-**Improving, **SE**- self-efficacy, **ELE-**Elementary school, **P/S-** Preschool, **H/S-**High School, **SD**- Standard deviation, **ACE-** Adverse childhood events, **SR-**self report, **SSS-** small sample size, **QE,-**Quasi-experimental

Citation	Theory/ Conceptual Framework	Design/ Method	Sample/ Setting	Major Variables & Definitions	Measurement/ Instrumentation	Data Analysis (stats used)	Findings/ Results	Level/Quality of Evidence; Decision for practice/ application to practice
Crain, T., (2016). Cultivating teacher mindfulness: Effects of a randomized controlled trial on work, home and sleep outcomes **Funding**: Spencer Foundation, Fetzer Institute, Mind and Life Institute, Portland State University	Transactional model of stress and coping Lazarus & Folkman "The effects of randomization to a workplace mindfulness training (WMT) or a waitlist control condition on teachers'	**RWCT** Flyers sent to all eligible teachers in each district. First 65 teachers were chosen. Randomly assigned to wait list or WMT. 8 week, 11 session program, 36 total contact hours.	**N**=113 public school teachers Canadian=58 **E. Can**= 67% **A. Can**= 18% Other=15% US=55 **E. AM** =93% Mix Race=5% **A. AM**= 2% **F** = 89% **M**= 11%	**IV**-time **DV-1** Mindfulness **DV-2** Job rumination **DV-3** Satisfaction and mood **DV-4** sleep quality **DV-5** sleep quantity and sleepiness	Data collected via take home survey at baseline, post program, and 3 month follow up Five Factor Mindfulness Questionnaire (FFM) Job rumination at home (Chronbach's alpha >.70) Satisfaction and mood/ sleep quality, sleep	Controlled for baseline using analyses of covariance (ANCOVA) Analyses of variance (ANOVA)	**(DV-1) MI INC SIG** between **MI** group and **CG** after completion ($F(1,109) = 16.92$, $p<.01$, Cohen's $d = .79$), & **INC** a little bit more at 3 month **FU** ($F(1,95) = 17.37$, $p<.01$, Cohen's $d = .87$)**.** **(DV-2)** Job rumination **DEC SIG** between **MG** & **CG** after completion ($F(1,107) =$	**Level II research** **Strengths:** High level research shows this **MI** program effective in **DEC** job rumination, **INC MI, IMP** mood, & life & work satisfaction. **Weaknesses:** This program is labor and time intensive but

Key: **MBI-** Mindfulness-based intervention, **SI-** Self- identified, **T-** Teacher, **TR-** Trainer/teacher, **S-** Student, **F**-Female, **M**-Male, **GT**- Grounded theory, **MI**- Mindfulness, **CR S-** Cross-sectional, **COR S**- Correlational study, **CON S**- Convenience sampling, **MOP**- Married or partner, **WMT-**Workplace mindfulness training, **EX**- Experience in years, **RWCT**- Randomized wait-list controlled trial, **E. Can**- European Canadian, **A. Can**- Asian Canadian, **E. AM**- European American, **A. AM**- Asian American, **AA**- African American, **NE**- North East, **DD**- Developmental Delay, **AU**-Autistic, **MBSR**- Mindfulness Based Stress Reduction, **PAD**- Positive Adult Development, **US DEIES**- US Department of Education Institute of Educational Sciences, **MAOT**- Medication assisted opioid treatment; **IV**- Independent Variable, **DV**- Dependent Variable, **(+)-** Positive, **(-)**- Negative, **R**- Relationship, **SIG-** Significant, **COR-** Correlation, **MP-**Mindful parenting, **PS-**Parental stress, **DEP-**Depression, **GMH-**General mental health, **DEC**-Decrease, **MH-** Mental health, **INC-**Increase, **CG-** Control group, **FU-**Follow-up, **IMP-**Improving, **SE**- self-efficacy, **ELE-**Elementary school, **P/S-** Preschool, **H/S-**High School, **SD**- Standard deviation, **ACE-** Adverse childhood events, **SR-**self report, **SSS-** small sample size, **QE,-**Quasi-experimental

Bias: None **Country**: Canada, USA	well-being… examined in two RCT."		**EX**= 1-35 years From western Canada and western part of US Average age= 46.9 73%= with master's degree **Attrition**: 0		quantity, and sleepiness (Kahneman et al., 2004) No reliability report documented		14.97, $p<.01$, Cohen's d =-.82) & **DEC** more at 3 month **FU** ($F(1, 94)$ = 19.58, $p<.01$, Cohen's d= -.87) **(DV-3)** Bad moods at work **DEC SIG** between **MG & CG** after completion of study (F(1,97)= 6.43, p<.01, Cohen's d = -.59) *and* **DEC** more at 3 month **FU** ($F(1,86)$= 6.96, $p<.01$, Cohen's d =-.66) **SIG DEC** bad moods at home ($F(1,97)$= 10.75, $p<.01$**,** Cohen's d=-.64), & after	does show effectiveness of **MI** with **T**s. **Feasibility:** due to labor and time intensive nature of this program. Feasibility is poor for replication of this study.

Key: **MBI-** Mindfulness-based intervention, **SI-** Self- identified, **T-** Teacher, **TR-** Trainer/teacher, **S-** Student, **F**-Female, **M**-Male, **GT**- Grounded theory, **MI**- Mindfulness, **CR S-** Cross-sectional, **COR S**- Correlational study, **CON S**- Convenience sampling, **MOP**- Married or partner, **WMT-**Workplace mindfulness training, **EX**- Experience in years, **RWCT**- Randomized wait-list controlled trial, **E. Can**- European Canadian, **A. Can**- Asian Canadian, **E. AM**- European American, **A. AM**- Asian American, **AA**- African American, **NE**- North East, **DD**- Developmental Delay, **AU**-Autistic, **MBSR**- Mindfulness Based Stress Reduction, **PAD**- Positive Adult Development, **US DEIES**- US Department of Education Institute of Educational Sciences, **MAOT**- Medication assisted opioid treatment; **IV**- Independent Variable, **DV**- Dependent Variable, **(+)-** Positive, **(-)**- Negative, **R**- Relationship, **SIG-** Significant, **COR-** Correlation, **MP-**Mindful parenting, **PS-**Parental stress, **DEP-**Depression, **GMH-**General mental health, **DEC-**Decrease, **MH-** Mental health, **INC-**Increase, **CG-** Control group, **FU-**Follow-up, **IMP-**Improving, **SE**- self-efficacy, **ELE-**Elementary school, **P/S-** Preschool, **H/S-**High School, **SD**- Standard deviation, **ACE-** Adverse childhood events, **SR-**self report, **SSS-** small sample size, **QE,-**Quasi-experimental

							(*F*(1,83) = 9.33, *p*<.01, Cohen's *d* =-65) **IMP** satisfaction with work (*F(*1,106)=4.57, *p*<.01), Cohen's *d* =.45)	

Key: **MBI-** Mindfulness-based intervention, **SI-** Self- identified, **T-** Teacher, **TR-** Trainer/teacher, **S-** Student, **F**-Female, **M**-Male, **GT**- Grounded theory, **MI**- Mindfulness, **CR S-** Cross-sectional, **COR S**- Correlational study, **CON S**- Convenience sampling, **MOP**- Married or partner, **WMT-**Workplace mindfulness training, **EX**- Experience in years, **RWCT**- Randomized wait-list controlled trial, **E. Can**- European Canadian, **A. Can**- Asian Canadian, **E. AM**- European American, **A. AM**- Asian American, **AA**- African American, **NE**- North East, **DD**- Developmental Delay, **AU**-Autistic, **MBSR**- Mindfulness Based Stress Reduction, **PAD**- Positive Adult Development, **US DEIES**- US Department of Education Institute of Educational Sciences, **MAOT**- Medication assisted opioid treatment; **IV**- Independent Variable, **DV**- Dependent Variable, **(+)-** Positive, **(-)**- Negative, **R**- Relationship, **SIG-** Significant, **COR-** Correlation, **MP-**Mindful parenting, **PS-**Parental stress, **DEP-**Depression, **GMH-**General mental health, **DEC-**Decrease, **MH-** Mental health, **INC-**Increase, **CG-** Control group, **FU-**Follow-up, **IMP-**Improving, **SE**- self-efficacy, **ELE-**Elementary school, **P/S-** Preschool, **H/S-**High School, **SD**- Standard deviation, **ACE-** Adverse childhood events, **SR-**self report, **SSS-** small sample size, **QE,-**Quasi-experimental

Citation	Theory/ Conceptual Framework	Design/ Method	Sample/ Setting	Major Variables & Definitions	Measurement/ Instrumentation	Data Analysis (stats used)	Findings/ Results	Level/Quality of Evidence; Decision for practice/ application to practice
Harris (2016) Promoting Stress Management and Wellbeing in Educators: Feasibility and Efficacy of a School-Based Yoga and Mindfulness Intervention **Funding**: grants from the 1440 Foundation and Penn State Children,	Polyvagal theory Stephen Porges	**RCT with wait list** **Purpose:** Assess for feasibility and efficacy of the Community Approach to Learning Mindfully (CALM)	N= 64 98% white 88% female Mean age 43 years Average teaching experience= 14 years 2 middle schools **Attrition=1** **Demographics:** **Inclusion:**	**IV- CALM** **DV-1** Mindfulness **DV-2** Affect **DV-3** Emotion regulation **DV-4** distress tolerance **DV-5** relational trust **DV-6** teaching efficacy **DV-7** Time urgency	**DV-1** FFMQ 39 **DV-2** Positive and Negative Affect Schedule-short form (PANAS) **DV-3** Emotion Regulation Questionnaire (ERQ) **DV-4** Distress Tolerance Scale (DTS)	**DV-1** (Observation $p<0.05$) **DV-2 (**positive affect $p<0.01$) **DV-4 (**distress tolerance $P<0.01$) **DV-6 (**classroom management $p<0.05$)	CALM increased observation, classroom management. Did not alter frequency of negative affect, but helped coping with negative emotions. Well received. Positive affect on lowering BP and cortisol.	**Level of evidence: II** **Strengths:** diverse outcome management **Weaknesses:** homogenic data (female and white) **Feasibility:** this study is moderately feasible due to brief yoga intervention

Key: **MBI-** Mindfulness-based intervention, **SI-** Self- identified, **T-** Teacher, **TR-** Trainer/teacher, **S-** Student, **F**-Female, **M**-Male, **GT**- Grounded theory, **MI**- Mindfulness, **CR S-** Cross-sectional, **COR S**- Correlational study, **CON S**- Convenience sampling, **MOP**- Married or partner, **WMT-**Workplace mindfulness training, **EX**- Experience in years, **RWCT**- Randomized wait-list controlled trial, **E. Can**- European Canadian, **A. Can**- Asian Canadian, **E. AM**- European American, **A. AM**- Asian American, **AA**- African American, **NE**- North East, **DD**- Developmental Delay, **AU**-Autistic, **MBSR**- Mindfulness Based Stress Reduction, **PAD**- Positive Adult Development, **US DEIES**- US Department of Education Institute of Educational Sciences, **MAOT**- Medication assisted opioid treatment; **IV**- Independent Variable, **DV**- Dependent Variable, **(+)-** Positive, **(-)**- Negative, **R**- Relationship, **SIG-** Significant, **COR-** Correlation, **MP-**Mindful parenting, **PS-**Parental stress, **DEP-**Depression, **GMH-**General mental health, **DEC**-Decrease, **MH-** Mental health, **INC-**Increase, **CG-** Control group, **FU-**Follow-up, **IMP-**Improving, **SE**- self-efficacy, **ELE-**Elementary school, **P/S-** Preschool, **H/S-**High School, **SD**- Standard deviation, **ACE-** Adverse childhood events, **SR-**self report, **SSS-** small sample size, **QE,-**Quasi-experimental

Youth, and Families Consortium. In addition to grant R305B0900007, TIES pre-doctoral fellowship from the Institute of Education Science **Bias:** small, homogenous sample **Country**: USA				**DV-8** Perceived stress **DV-9** Professional burnout **DV-10** Physical symptoms **DV-11** Sleep related impairment **DV-12** blood pressure **DV-13** Cortisol	**DV-5 T**eacher-Teacher Relational Trust **DV-6** Teacher's Sense of Efficacy Scale (TSES) **DV-7** Time Urgency **DV-8** Perceived Stress Scale **DV-9** Maslach Burnout Inventory **DV-10** The Daily Symptom Scale **DV-11** PROMIS Sleep-Related Impairment scale **DV-12** Blood pressure x3 @ in person assessment	**DV-10** Fewer daily physical sx (p<0.05) **DV-12 Sig** Decrease in DBP but not SBP (p<0.05)		throughout the day. May be difficult to obtain yoga/ mindfulness instructor for ongoing practice in this setting.

Key: **MBI-** Mindfulness-based intervention, **SI-** Self- identified, **T-** Teacher, **TR-** Trainer/teacher, **S-** Student, **F**-Female, **M**-Male, **GT**- Grounded theory, **MI**- Mindfulness, **CR S-** Cross-sectional, **COR S**- Correlational study, **CON S**- Convenience sampling, **MOP**- Married or partner, **WMT-**Workplace mindfulness training, **EX**- Experience in years, **RWCT**- Randomized wait-list controlled trial, **E. Can**- European Canadian, **A. Can**- Asian Canadian, **E. AM**- European American, **A. AM**- Asian American, **AA**- African American, **NE**- North East, **DD**- Developmental Delay, **AU**-Autistic, **MBSR**- Mindfulness Based Stress Reduction, **PAD**- Positive Adult Development, **US DEIES**- US Department of Education Institute of Educational Sciences, **MAOT**- Medication assisted opioid treatment; **IV**- Independent Variable, **DV**- Dependent Variable, **(+)-** Positive, **(-)**- Negative, **R**- Relationship, **SIG-** Significant, **COR-** Correlation, **MP-**Mindful parenting, **PS-**Parental stress, **DEP-**Depression, **GMH-**General mental health, **DEC-**Decrease, **MH-** Mental health, **INC-**Increase, **CG-** Control group, **FU-**Follow-up, **IMP-**Improving, **SE**- self-efficacy, **ELE-**Elementary school, **P/S-** Preschool, **H/S-**High School, **SD**- Standard deviation, **ACE-** Adverse childhood events, **SR-**self report, **SSS-** small sample size, **QE,-**Quasi-experimental

					DV-13 Saliva			
Citation	Theory/ Conceptual Framework	Design/ Method	Sample/ Setting	Major Variables & Definitions	Measurement/ Instrumentation	Data Analysis (stats used)	Findings/ Results	Level/Quality of Evidence; Decision for practice/ application to practice
Jennings, P. (2013). Improving classroom learning environments by cultivating awareness and resilience in education (CARE): Results of a randomized controlled trial **Funding**: **U.S. DEIES**	Social Cognitive Theory of Self-Regulation Albert Bandura The Prosocial Classroom Model	**RCT** Self-report measures pre and post **Purpose:** "The present study examines whether the CARE professional development program can improve teachers' social-emotional	**n**= 53 Urban and suburban public schools in two districts in NE U.S. 89% =female 47= white 2=**AA** 2= Hispanic 1= biracial 1= declined to report	**IV**-CARE program **DV-1** General well-being **DV-2** Efficacy **DV-3** Burnout and time pressure	**Positive and Negative Affect Schedule (PANAS)** Coefficient alpha for positive and negative (0.92, 0.85) **Emotion Regulation Questionnaire (ERQ)** Coefficient alpha for reappraisal and suppression	Single-level analyses Independent *t*- test= no significant difference between intervention and control group for baseline data. ANCOVAs	**(DV-1)** Well-being, **SIG** finding reports of DPS, $F(1,47)= 10.2$, $p=.002$; $d=-.32$ **(DV-2)** teacher's sense of self-efficacy: $F(1,47)=10.6$, $p=.002$, $d=.60$; Efficacy in student engagement: $F(1,47)=10.3$, $p=.002$, $d=.59$;	**Level of evidence: 1I** **Weaknesses:** Homogenous population, unsure if reflective of the community based on limited race related data for the area. Need outcomes related to

Key: **MBI-** Mindfulness-based intervention, **SI-** Self- identified, **T-** Teacher, **TR-** Trainer/teacher, **S-** Student, **F**-Female, **M**-Male, **GT**- Grounded theory, **MI**- Mindfulness, **CR S-** Cross-sectional, **COR S**- Correlational study, **CON S**- Convenience sampling, **MOP**- Married or partner, **WMT-**Workplace mindfulness training, **EX**- Experience in years, **RWCT**- Randomized wait-list controlled trial, **E. Can**- European Canadian, **A. Can**- Asian Canadian, **E. AM**- European American, **A. AM**- Asian American, **AA**- African American, **NE**- North East, **DD**- Developmental Delay, **AU**-Autistic, **MBSR**- Mindfulness Based Stress Reduction, **PAD**- Positive Adult Development, **US DEIES**- US Department of Education Institute of Educational Sciences, **MAOT**- Medication assisted opioid treatment; **IV**- Independent Variable, **DV**- Dependent Variable, **(+)-** Positive, **(-)**- Negative, **R**- Relationship, **SIG-** Significant, **COR-** Correlation, **MP-**Mindful parenting, **PS-**Parental stress, **DEP-**Depression, **GMH-**General mental health, **DEC**-Decrease, **MH-** Mental health, **INC-**Increase, **CG-** Control group, **FU-**Follow-up, **IMP-**Improving, **SE**- self-efficacy, **ELE-**Elementary school, **P/S-** Preschool, **H/S-**High School, **SD**- Standard deviation, **ACE-** Adverse childhood events, **SR-**self report, **SSS-** small sample size, **QE,-**Quasi-experimental

#R305A090179 **Bias**: homogenous sample/ program studied was developed by these researchers **Location**: U.S.	Jennings, Greenberg (2009) The CARE Intervention Model	competence and well-being."	72%=graduate degree Mean age=36 Mean years teaching= 11.7 (more educated and more female than general population of teachers for that area) no info for racial demographics for same area teachers **ELE**=47% **P/S n=3** **H/S n=6** **Mixed grade N=16**	**DV-4** Mindfulness	subscales (0.90, 0.67) **The Center for Epidemiologic Studies Depression Scale (CES-D-20)** (α=0.87) **The Daily Physical Symptoms (DPS)** (α=0.77) **Teachers' Sense of Efficacy Questionnaire (TSES)** (α=0.95) **Maslach Burnout Inventory (MBI)** **The Time Urgency Scale (TUS)** Speech patterns (α=0.72), eating behavior		**(DV-3)** Burnout/time-pressure General hurry subscale $F(1,47)=5.4$, $p=.025$, $d=-.42$; personal accomplishment subscale of **MBI,** $F(1,47)=3.9$, $p=.05$, $d=.40$ **(DV-4)** Mindfulness Observing, $F(1,47)=9.8$, $p=.003$, $d=.73$; FFMQ summary mindfulness score: $F(1,47)=4.29$, $p=.044$, $d=.56$ **Program evaluation**	student performance impact of this program & long term potential mediating of **T** burnout. Program was time intensive. Program was evaluated by the program creators (bias) **Strengths:** **T**s provided positive feedback regarding this program's impact on their ability to care for students and increased **MI**, **IMP** feelings of **SE**

Key: **MBI-** Mindfulness-based intervention, **SI-** Self- identified, **T-** Teacher, **TR-** Trainer/teacher, **S-** Student, **F**-Female, **M**-Male, **GT**- Grounded theory, **MI**- Mindfulness, **CR S-** Cross-sectional, **COR S**- Correlational study, **CON S**- Convenience sampling, **MOP**- Married or partner, **WMT-**Workplace mindfulness training, **EX-** Experience in years, **RWCT**- Randomized wait-list controlled trial, **E. Can**- European Canadian, **A. Can**- Asian Canadian, **E. AM**- European American, **A. AM**- Asian American, **AA**- African American, **NE**- North East, **DD**- Developmental Delay, **AU**-Autistic, **MBSR**- Mindfulness Based Stress Reduction, **PAD**- Positive Adult Development, **US DEIES**- US Department of Education Institute of Educational Sciences, **MAOT**- Medication assisted opioid treatment; **IV**- Independent Variable, **DV**- Dependent Variable, **(+)-** Positive, **(-)**- Negative, **R**- Relationship, **SIG-** Significant, **COR-** Correlation, **MP-**Mindful parenting, **PS-**Parental stress, **DEP-**Depression, **GMH-**General mental health, **DEC**-Decrease, **MH-** Mental health, **INC-**Increase, **CG-** Control group, **FU-**Follow-up, **IMP-**Improving, **SE**- self-efficacy, **ELE-**Elementary school, **P/S-** Preschool, **H/S-**High School, **SD**- Standard deviation, **ACE-** Adverse childhood events, **SR-**self report, **SSS-** small sample size, **QE,-**Quasi-experimental

					(α=0.92), competitiveness (α=0.70), task-related hurry (0.84) **The Five Facet Mindfulness Questionnaire (FFMQ)** **CARE Acceptability Questionnaire (CAQ)**		87% agreed or strongly agreed that this type of program should become part of in-service training 96% **IMP** self-awareness 92% **IMP GMH** 77% **IMP** ability to manage classroom behaviors effectively and compassionately 83% **IMP** relationships with students. 76% **IMP** student pro-social behavior 66% **IMP** on task behavior 56% **IMP** academic performance	and increased well-being Good fidelity as program studied was conducted by researchers who developed the program **Feasibility:** Questionable feasibility due to time intensive nature of CARE program

Key: **MBI-** Mindfulness-based intervention, **SI-** Self- identified, **T-** Teacher, **TR-** Trainer/teacher, **S-** Student, **F**-Female, **M**-Male, **GT**- Grounded theory, **MI**- Mindfulness, **CR S-** Cross-sectional, **COR S**- Correlational study, **CON S**- Convenience sampling, **MOP**- Married or partner, **WMT-**Workplace mindfulness training, **EX**- Experience in years, **RWCT**- Randomized wait-list controlled trial, **E. Can**- European Canadian, **A. Can**- Asian Canadian, **E. AM**- European American, **A. AM**- Asian American, **AA**- African American, **NE**- North East, **DD**- Developmental Delay, **AU**-Autistic, **MBSR**- Mindfulness Based Stress Reduction, **PAD**- Positive Adult Development, **US DEIES**- US Department of Education Institute of Educational Sciences, **MAOT**- Medication assisted opioid treatment; **IV**- Independent Variable, **DV**- Dependent Variable, **(+)-** Positive, **(-)**- Negative, **R**- Relationship, **SIG-** Significant, **COR-** Correlation, **MP-**Mindful parenting, **PS-**Parental stress, **DEP-**Depression, **GMH-**General mental health, **DEC**-Decrease, **MH-** Mental health, **INC-**Increase, **CG-** Control group, **FU-**Follow-up, **IMP-**Improving, **SE**- self-efficacy, **ELE-**Elementary school, **P/S-** Preschool, **H/S-**High School, **SD**- Standard deviation, **ACE-** Adverse childhood events, **SR-**self report, **SSS-** small sample size, **QE,-**Quasi-experimental

Citation	Theory/ Conceptual Framework	Design/ Method	Sample/ Setting	Major Variables & Definitions	Measurement/ Instrumentation	Data Analysis (stats used)	Findings/ Results	Level/Quality of Evidence; Decision for practice/ application to practice
Jennings (2015) Early Childhood Teachers; Well-Being, Mindfulness, and Self-Compassion in Relation to Classroom Quality and Attitudes Towards Challenging Students	Prosocial Classroom Model (Jennings and Greenberg 2009)	**RCT** **Purpose: "**examining teachers' psychosocial characteristic in relation to the dimensions of quality learning environments."	**n**= 35 21 teachers in private preschool 14 teachers from Head Start Mean age=45.53 M=15 years experience 3=male 9= Hispanic	**IV-1** mindfulness **IV-2** affect **IV-3** depression **IV-4** burnout **IV-5** Self-compassion **IV-6** Teacher Efficacy **DV-1** Classroom environment	Demographic data **IV-1** FFFMQ **IV-2** PANAS **IV-3** BDI **IV-4** MBI **IV-5** Self compassion scale (SCS)	Pearson correlation coefficients	**DV-1** Correlations between CLASS and depression was **SIG NEG COR** with all three domains of CLASS= emotional support (r=-0.42, p,0.05), classroom organization (r=-.45, p<0.01), instructional support (r=-.51, p<0.01).	**Level of evidence: II** **Strengths**: RCT design **Weakness**: small sample size, limits generalizability Correlations do not show causal directionality. **Feasibility**: good

Key: **MBI-** Mindfulness-based intervention, **SI-** Self- identified, **T-** Teacher, **TR-** Trainer/teacher, **S-** Student, **F**-Female, **M**-Male, **GT**- Grounded theory, **MI**- Mindfulness, **CR S-** Cross-sectional, **COR S**- Correlational study, **CON S**- Convenience sampling, **MOP**- Married or partner, **WMT-**Workplace mindfulness training, **EX**- Experience in years, **RWCT**- Randomized wait-list controlled trial, **E. Can**- European Canadian, **A. Can**- Asian Canadian, **E. AM**- European American, **A. AM**- Asian American, **AA**- African American, **NE**- North East, **DD**- Developmental Delay, **AU**-Autistic, **MBSR**- Mindfulness Based Stress Reduction, **PAD**- Positive Adult Development, **US DEIES**- US Department of Education Institute of Educational Sciences, **MAOT**- Medication assisted opioid treatment; **IV**- Independent Variable, **DV**- Dependent Variable, **(+)-** Positive, **(-)**- Negative, **R**- Relationship, **SIG-** Significant, **COR-** Correlation, **MP-**Mindful parenting, **PS-**Parental stress, **DEP-**Depression, **GMH-**General mental health, **DEC**-Decrease, **MH-** Mental health, **INC-**Increase, **CG-** Control group, **FU-**Follow-up, **IMP-**Improving, **SE**- self-efficacy, **ELE-**Elementary school, **P/S-** Preschool, **H/S-**High School, **SD**- Standard deviation, **ACE-** Adverse childhood events, **SR-**self report, **SSS-** small sample size, **QE,-**Quasi-experimental

Funding: grant from the Fetzer Institute **Bias**: small sample size **Location:** USA			2= Filipino 4=African American Others= white Recruited via flyers/ group presentations	**DV-2** Teacher interactions and emotional response to a challenging student	**IV-6** Teacher Efficacy Scale (TES) **DV-1** CLASS **DV-2** Teacher Relationship Interview (TRI)		**DV-2** observe **sig cor** with perspective taking (r=0.37, p<0.05), awareness **sig cor** with sensitivity of discipline (r=0.41, p<0.05). Depersonalization **neg cor** with sensitivity of discipline (r=-0.46, $p<0.01$)	**"supporting teachers well-being and social and emotional competence may improve performance and classroom quality"**

Key: **MBI-** Mindfulness-based intervention, **SI-** Self- identified, **T-** Teacher, **TR-** Trainer/teacher, **S-** Student, **F**-Female, **M**-Male, **GT**- Grounded theory, **MI**- Mindfulness, **CR S-** Cross-sectional, **COR S**- Correlational study, **CON S**- Convenience sampling, **MOP**- Married or partner, **WMT-**Workplace mindfulness training, **EX**- Experience in years, **RWCT**- Randomized wait-list controlled trial, **E. Can**- European Canadian, **A. Can**- Asian Canadian, **E. AM**- European American, **A. AM**- Asian American, **AA**- African American, **NE**- North East, **DD**- Developmental Delay, **AU**-Autistic, **MBSR**- Mindfulness Based Stress Reduction, **PAD**- Positive Adult Development, **US DEIES**- US Department of Education Institute of Educational Sciences, **MAOT**- Medication assisted opioid treatment; **IV**- Independent Variable, **DV**- Dependent Variable, **(+)-** Positive, **(-)**- Negative, **R**- Relationship, **SIG-** Significant, **COR-** Correlation, **MP-**Mindful parenting, **PS-**Parental stress, **DEP-**Depression, **GMH-**General mental health, **DEC-**Decrease, **MH-** Mental health, **INC-**Increase, **CG-** Control group, **FU-**Follow-up, **IMP-**Improving, **SE**- self-efficacy, **ELE-**Elementary school, **P/S-** Preschool, **H/S-**High School, **SD**- Standard deviation, **ACE-** Adverse childhood events, **SR-**self report, **SSS-** small sample size, **QE,-**Quasi-experimental

Citation	Theory/ Conceptual Framework	Design/ Method	Sample/ Setting	Major Variables & Definitions	Measurement/ Instrumentation	Data Analysis (stats used)	Findings/ Results	Level/Quality of Evidence; Decision for practice/ application to practice
Molloy Elreda (2018) Protective Effects of Interpersonal Mindfulness for Teachers' Emotional Supportiveness in the Classroom **Funding**: the Institute of Educational Sciences (grant # R305A120180)	Prosocial classroom model (Jennings & Greenberg, 2009)	**RCT** **Purpose:** does "interpersonal mindfulness in teachers increase ability to be emotionally supportive in the classroom, even under conditions of high stress and ambition."	N=224 general education teachers 93% female K-5th grade 36 urban public schools in low income community 33% white 31% Hispanic 26% African American 4% Asian	**IV**- mindfulness **DV-1** classroom environment **DV-2** Stress **DV-3** ambition	**IV**- Interpersonal Mindfulness in Teaching Scale **DV-1** CLASS **DV-2** The Perceived Stress Scale **DV-3** Competitiveness subscale of the Time Urgency Scale	Linear regression analysis	"teachers with high levels of perceived stress were substantially more emotionally supportive in the classroom if they were also high on interpersonal mindfulness." (p=.04)	**Level of evidence: II** **Strengths:** Large, diverse sample size. Multimethod measurement approach **Weaknesses:** Not generalizable. **Feasibility:** good

Key: **MBI-** Mindfulness-based intervention, **SI-** Self- identified, **T-** Teacher, **TR-** Trainer/teacher, **S-** Student, **F**-Female, **M**-Male, **GT**- Grounded theory, **MI**- Mindfulness, **CR S-** Cross-sectional, **COR S**- Correlational study, **CON S**- Convenience sampling, **MOP**- Married or partner, **WMT-**Workplace mindfulness training, **EX**- Experience in years, **RWCT**- Randomized wait-list controlled trial, **E. Can**- European Canadian, **A. Can**- Asian Canadian, **E. AM**- European American, **A. AM**- Asian American, **AA**- African American, **NE**- North East, **DD**- Developmental Delay, **AU**- Autistic, **MBSR**- Mindfulness Based Stress Reduction, **PAD**- Positive Adult Development, **US DEIES**- US Department of Education Institute of Educational Sciences, **MAOT**- Medication assisted opioid treatment; **IV**- Independent Variable, **DV**- Dependent Variable, **(+)-** Positive, **(-)**- Negative, **R**- Relationship, **SIG-** Significant, **COR-** Correlation, **MP-**Mindful parenting, **PS-**Parental stress, **DEP-**Depression, **GMH-**General mental health, **DEC**-Decrease, **MH-** Mental health, **INC-**Increase, **CG-** Control group, **FU-**Follow-up, **IMP-**Improving, **SE**- self-efficacy, **ELE-**Elementary school, **P/S-** Preschool, **H/S-**High School, **SD**- Standard deviation, **ACE-** Adverse childhood events, **SR-**self report, **SSS-** small sample size, **QE,-**Quasi-experimental

Location: USA			5% mixed race 96% had graduate degree Inclusion: lead teachers, general ed.,					

Key: **MBI-** Mindfulness-based intervention, **SI-** Self- identified, **T-** Teacher, **TR-** Trainer/teacher, **S-** Student, **F**-Female, **M**-Male, **GT**- Grounded theory, **MI**- Mindfulness, **CR S-** Cross-sectional, **COR S**- Correlational study, **CON S**- Convenience sampling, **MOP**- Married or partner, **WMT-**Workplace mindfulness training, **EX**- Experience in years, **RWCT**- Randomized wait-list controlled trial, **E. Can**- European Canadian, **A. Can**- Asian Canadian, **E. AM**- European American, **A. AM**- Asian American, **AA**- African American, **NE**- North East, **DD**- Developmental Delay, **AU**-Autistic, **MBSR**- Mindfulness Based Stress Reduction, **PAD**- Positive Adult Development, **US DEIES**- US Department of Education Institute of Educational Sciences, **MAOT**- Medication assisted opioid treatment; **IV**- Independent Variable, **DV**- Dependent Variable, **(+)-** Positive, **(-)**- Negative, **R**- Relationship, **SIG-** Significant, **COR-** Correlation, **MP-**Mindful parenting, **PS-**Parental stress, **DEP-**Depression, **GMH-**General mental health, **DEC**-Decrease, **MH-** Mental health, **INC-**Increase, **CG-** Control group, **FU-**Follow-up, **IMP-**Improving, **SE**- self-efficacy, **ELE-**Elementary school, **P/S-** Preschool, **H/S-**High School, **SD**- Standard deviation, **ACE-** Adverse childhood events, **SR-**self report, **SSS-** small sample size, **QE,-**Quasi-experimental

Citation	Theory/ Conceptual Framework	Design/ Method	Sample/ Setting	Major Variables & Definitions	Measurement/ Instrumentation	Data Analysis (stats used)	Findings/ Results	Level/Quality of Evidence; Decision for practice/ application to practice
Reiser, J (2018). Preliminary investigation of a stress prevention and mindfulness group for teachers **Funding**: none **Bias:** Research is testing a SPAM program that the principle researcher developed	Social Cognitive Theory of Self-Regulation Albert Bandura	Mixed methods approach Quasi-experimental cohort design Semi-structured interview **Purpose:** to explore the outcomes and experience of a brief stress prevention and MI group with teachers.	**n**= 45 teachers from 3 public schools in southwest. 26 participants attended more than half of group meetings **Power**=28	**IV**- SPAM **DV-1** vulnerability to stress **DV-2** job satisfaction **DV-3** mindfulness **RQ-1** perceptions of SPAM group impact **RQ-2** patterns in how participants described	The Classroom Appraisal of Resources and Demands (CARD) Demand scale(α pre-test .863, post-test=.865) Resource scale (α pre-test .943, post-test .866) 14-iten Job Satisfaction scale (α pre-test .893, post-test .935) The Five Facet Mindfulness	Independent sample *t*-test analysis of covariance (ANCOVA) Semi-structured interview method/ thematic analysis-protocol by Braun and Clarke (2006)	**DV-3** Mindfulness increased post intervention for those in the **MG** $F(1,37) = 5.55$, $p < .05$) **Major Themes** **RQ1**-an exploration of the SPAM group's impact on teachers a)utilization of content and skills outside of the group b)positive personal and	**Level of evidence: VI** **Strengths:** quantitative and qualitative data Findings of **INC MI** consistent with recent studies on **MI** & **T.** **Weaknesses:** Quasi-experimental design does not show causality, small sample

Key: **MBI-** Mindfulness-based intervention, **SI-** Self- identified, **T-** Teacher, **TR-** Trainer/teacher, **S-** Student, **F**-Female, **M**-Male, **GT**- Grounded theory, **MI**- Mindfulness, **CR S-** Cross-sectional, **COR S**- Correlational study, **CON S**- Convenience sampling, **MOP**- Married or partner, **WMT-**Workplace mindfulness training, **EX**- Experience in years, **RWCT**- Randomized wait-list controlled trial, **E. Can**- European Canadian, **A. Can**- Asian Canadian, **E. AM**- European American, **A. AM**- Asian American, **AA**- African American, **NE**- North East, **DD**- Developmental Delay, **AU**-Autistic, **MBSR**- Mindfulness Based Stress Reduction, **PAD**- Positive Adult Development, **US DEIES**- US Department of Education Institute of Educational Sciences, **MAOT**- Medication assisted opioid treatment; **IV**- Independent Variable, **DV**- Dependent Variable, **(+)-** Positive, **(-)**- Negative, **R**- Relationship, **SIG-** Significant, **COR-** Correlation, **MP-**Mindful parenting, **PS-**Parental stress, **DEP-**Depression, **GMH-**General mental health, **DEC**-Decrease, **MH-** Mental health, **INC-**Increase, **CG-** Control group, **FU-**Follow-up, **IMP-**Improving, **SE**- self-efficacy, **ELE-**Elementary school, **P/S-** Preschool, **H/S-**High School, **SD**- Standard deviation, **ACE-** Adverse childhood events, **SR-**self report, **SSS-** small sample size, **QE,-**Quasi-experimental

Country: USA Southwest				their experiences	Questionnaire Short Form (FFMQ-SF)		profession impact of participation **RQ_2**-an exploration of how group members described their experiences c)a positive and valuable experience d)being in a group with colleagues was therapeutic -positive personal and professional impact -engagement with emotion -engagement with stress -responding vs. reacting	size, predominately white/ female **Feasibility:** good

Key: **MBI-** Mindfulness-based intervention, **SI-** Self- identified, **T-** Teacher, **TR-** Trainer/teacher, **S-** Student, **F**-Female, **M**-Male, **GT**- Grounded theory, **MI**- Mindfulness, **CR S-** Cross-sectional, **COR S**- Correlational study, **CON S**- Convenience sampling, **MOP**- Married or partner, **WMT-**Workplace mindfulness training, **EX**- Experience in years, **RWCT**- Randomized wait-list controlled trial, **E. Can**- European Canadian, **A. Can**- Asian Canadian, **E. AM**- European American, **A. AM**- Asian American, **AA**- African American, **NE**- North East, **DD**- Developmental Delay, **AU**-Autistic, **MBSR**- Mindfulness Based Stress Reduction, **PAD**- Positive Adult Development, **US DEIES**- US Department of Education Institute of Educational Sciences, **MAOT**- Medication assisted opioid treatment; **IV**- Independent Variable, **DV**- Dependent Variable, **(+)-** Positive, **(-)**- Negative, **R**- Relationship, **SIG-** Significant, **COR-** Correlation, **MP-**Mindful parenting, **PS-**Parental stress, **DEP-**Depression, **GMH-**General mental health, **DEC-**Decrease, **MH-** Mental health, **INC-**Increase, **CG-** Control group, **FU-**Follow-up, **IMP-**Improving, **SE**- self-efficacy, **ELE-**Elementary school, **P/S-** Preschool, **H/S-**High School, **SD**- Standard deviation, **ACE-** Adverse childhood events, **SR-**self report, **SSS-** small sample size, **QE,-**Quasi-experimental

							-compassion for self, colleagues and students -strengthened relationship with colleagues	
Citation	Theory/ Conceptual Framework	Design/ Method	Sample/ Setting	Major Variables & Definitions	Measurement/ Instrumentation	Data Analysis (stats used)	Findings/ Results	Level/Quality of Evidence; Decision for practice/ application to practice
Rhodes, A.(2016). Yoga for adult women with chronic PTSD: A long-term follow-up study. **Country:** USA **Funding:** none **Bias:** none	Social Cognitive Theory of Self-Regulation Albert Bandura	**RCT** original study with 60 participants. 1.5 years after initial study as follow up **Purpose:** examine whether there are greater changes in long-term mental	**n**=49 all women 71.4% - white 46.9% - single 71.4% - college graduate 46.9% - <$40,000	**IV**- yoga **DV- 1** PTSD symptoms **DV-2** dissociative experiences **DV-3** Depression	Clinician Administered PTSD Scale (CAPS) Dissociative Experiences Scale (DES) Beck Depression Inventory (BDI) Inventory of Altered Self	Bivariate correlation analysis Hierarchical linear regression analysis	Greater frequency of continuing yoga practice was **DV-1 SIG** predictor for greater **DEC** in PTSD symptom severity (b=12.24; p<0.05) **DV-1, DV-3 DEC DEP** symptom	**Level of evidence: II** **Strengths: RCT** **Weaknesses:** Did not determine length of yoga practice required for beneficial effect, nor if

Key: **MBI-** Mindfulness-based intervention, **SI-** Self- identified, **T-** Teacher, **TR-** Trainer/teacher, **S-** Student, **F**-Female, **M**-Male, **GT**- Grounded theory, **MI**- Mindfulness, **CR S-** Cross-sectional, **COR S**- Correlational study, **CON S**- Convenience sampling, **MOP**- Married or partner, **WMT-**Workplace mindfulness training, **EX**- Experience in years, **RWCT**- Randomized wait-list controlled trial, **E. Can**- European Canadian, **A. Can**- Asian Canadian, **E. AM**- European American, **A. AM**- Asian American, **AA**- African American, **NE**- North East, **DD**- Developmental Delay, **AU**-Autistic, **MBSR**- Mindfulness Based Stress Reduction, **PAD**- Positive Adult Development, **US DEIES**- US Department of Education Institute of Educational Sciences, **MAOT**- Medication assisted opioid treatment; **IV**- Independent Variable, **DV**- Dependent Variable, **(+)-** Positive, **(-)**- Negative, **R**- Relationship, **SIG-** Significant, **COR-** Correlation, **MP-**Mindful parenting, **PS-**Parental stress, **DEP-**Depression, **GMH-**General mental health, **DEC**-Decrease, **MH-** Mental health, **INC-**Increase, **CG-** Control group, **FU-**Follow-up, **IMP-**Improving, **SE**- self-efficacy, **ELE-**Elementary school, **P/S-** Preschool, **H/S-**High School, **SD**- Standard deviation, **ACE-** Adverse childhood events, **SR-**self report, **SSS-** small sample size, **QE,-**Quasi-experimental

		health outcomes for yoga participants vs control	annual income 38.8% - full-time employment Mean age+ **SD** 42.8+11.8	**DV-4** psychological functioning **DV-5** life stress	Capacities Tension Reduction Activities (IASC-TRA) Stressful Life Events Screening Questionnaire (SLESQ)		severity (r=0.348; p<0.05)with greater likelihood of loss of PTSD diagnosis (r= -0.283; p<0.05)	types of yoga have different effect **Feasibility:** Yoga is an widely accepted form of exercise and mindfulness intervention. Good feasibility

Key: **MBI-** Mindfulness-based intervention, **SI-** Self- identified, **T-** Teacher, **TR-** Trainer/teacher, **S-** Student, **F**-Female, **M**-Male, **GT**- Grounded theory, **MI**- Mindfulness, **CR S-** Cross-sectional, **COR S**- Correlational study, **CON S**- Convenience sampling, **MOP**- Married or partner, **WMT-**Workplace mindfulness training, **EX**- Experience in years, **RWCT**- Randomized wait-list controlled trial, **E. Can**- European Canadian, **A. Can**- Asian Canadian, **E. AM**- European American, **A. AM**- Asian American, **AA**- African American, **NE**- North East, **DD**- Developmental Delay, **AU**-Autistic, **MBSR**- Mindfulness Based Stress Reduction, **PAD**- Positive Adult Development, **US DEIES**- US Department of Education Institute of Educational Sciences, **MAOT**- Medication assisted opioid treatment; **IV**- Independent Variable, **DV**- Dependent Variable, **(+)-** Positive, **(-)**- Negative, **R**- Relationship, **SIG-** Significant, **COR-** Correlation, **MP-**Mindful parenting, **PS-**Parental stress, **DEP-**Depression, **GMH-**General mental health, **DEC-**Decrease, **MH-** Mental health, **INC-**Increase, **CG-** Control group, **FU-**Follow-up, **IMP-**Improving, **SE**- self-efficacy, **ELE-**Elementary school, **P/S-** Preschool, **H/S-**High School, **SD**- Standard deviation, **ACE-** Adverse childhood events, **SR-**self report, **SSS-** small sample size, **QE,-**Quasi-experimental

Citation	Theory/ Conceptual Framework	Design/ Method	Sample/ Setting	Major Variables & Definitions	Measurement/ Instrumentation	Data Analysis (stats used)	Findings/ Results	Level/Quality of Evidence; Decision for practice/ application to practice
Saylor (2018) Teacher-Centered Mentorship as Meaningful Professional Montessori Development Funding: none Country: USA	"employing a teacher-centered PD program featuring mindfulness, reflective practice, and clinical supervision drives the conceptual foundations of the present study." Teacher-	Qualitative **Purpose**: "A real-time, multidimensional, professional-development program that is connected to both practice and school culture was delivered to a group of Montessori teachers with the goal of	**n**= 5 3-elementary school teachers 2- preschool/ kindergarten teachers	**Question 1**- How do Montessori Early Childhood and Elementary teachers experience an integrated PD program that contains mindfulness, reflective practice, and teacher-	*Quick writes*, check-in survey questions throughout study, and researcher observations	Case study analysis	**Themes**: Mindfulness as precursor A community of trust Structure and focus Supportive accountability and change	**Level of evidence: VI** **Strengths:** adds to descriptive literature for further understand of the experience of mindfulness pd programs for teachers

Key: **MBI-** Mindfulness-based intervention, **SI-** Self- identified, **T-** Teacher, **TR-** Trainer/teacher, **S-** Student, **F**-Female, **M**-Male, **GT**- Grounded theory, **MI**- Mindfulness, **CR S-** Cross-sectional, **COR S**- Correlational study, **CON S**- Convenience sampling, **MOP**- Married or partner, **WMT-**Workplace mindfulness training, **EX**- Experience in years, **RWCT**- Randomized wait-list controlled trial, **E. Can**- European Canadian, **A. Can**- Asian Canadian, **E. AM**- European American, **A. AM**- Asian American, **AA**- African American, **NE**- North East, **DD**- Developmental Delay, **AU**-Autistic, **MBSR**- Mindfulness Based Stress Reduction, **PAD**- Positive Adult Development, **US DEIES**- US Department of Education Institute of Educational Sciences, **MAOT**- Medication assisted opioid treatment; **IV**- Independent Variable, **DV**- Dependent Variable, **(+)-** Positive, **(-)**- Negative, **R**- Relationship, **SIG-** Significant, **COR-** Correlation, **MP-**Mindful parenting, **PS-**Parental stress, **DEP-**Depression, **GMH-**General mental health, **DEC**-Decrease, **MH-** Mental health, **INC-**Increase, **CG-** Control group, **FU-**Follow-up, **IMP-**Improving, **SE**- self-efficacy, **ELE-**Elementary school, **P/S-** Preschool, **H/S-**High School, **SD**- Standard deviation, **ACE-** Adverse childhood events, **SR-**self report, **SSS-** small sample size, **QE,-**Quasi-experimental

	Centered Mentorship	improving teaching practices and increasing student success by exploring the potential benefits of mindfulness, structured reflective practice, and teacher-centered mentorship." 8 month long PD program		centered mentorship **Question 2**- How do the teachers use the new knowledge ot improve their teaching **Question 3**- Do the teachers believe they improve their teaching practices as they participate in the PD program containing mindfulness, reflective practice, and				**Weaknesses:** Small sample size. Limited generalizability **Feasibility:** poor. Long program length

Key: **MBI-** Mindfulness-based intervention, **SI-** Self- identified, **T-** Teacher, **TR-** Trainer/teacher, **S-** Student, **F**-Female, **M**-Male, **GT**- Grounded theory, **MI**- Mindfulness, **CR S-** Cross-sectional, **COR S**- Correlational study, **CON S**- Convenience sampling, **MOP**- Married or partner, **WMT-**Workplace mindfulness training, **EX**- Experience in years, **RWCT**- Randomized wait-list controlled trial, **E. Can**- European Canadian, **A. Can**- Asian Canadian, **E. AM**- European American, **A. AM**- Asian American, **AA**- African American, **NE**- North East, **DD**- Developmental Delay, **AU**-Autistic, **MBSR**- Mindfulness Based Stress Reduction, **PAD**- Positive Adult Development, **US DEIES**- US Department of Education Institute of Educational Sciences, **MAOT**- Medication assisted opioid treatment; **IV**- Independent Variable, **DV**- Dependent Variable, **(+)-** Positive, **(-)**- Negative, **R**- Relationship, **SIG-** Significant, **COR-** Correlation, **MP-**Mindful parenting, **PS-**Parental stress, **DEP-**Depression, **GMH-**General mental health, **DEC**-Decrease, **MH-** Mental health, **INC-**Increase, **CG-** Control group, **FU-**Follow-up, **IMP-**Improving, **SE**- self-efficacy, **ELE-**Elementary school, **P/S-** Preschool, **H/S-**High School, **SD**- Standard deviation, **ACE-** Adverse childhood events, **SR-**self report, **SSS-** small sample size, **QE,-**Quasi-experimental

				teacher-centered mentorship				

Key: **MBI-** Mindfulness-based intervention, **SI-** Self- identified, **T-** Teacher, **TR-** Trainer/teacher, **S-** Student, **F**-Female, **M**-Male, **GT**- Grounded theory, **MI**- Mindfulness, **CR S-** Cross-sectional, **COR S**- Correlational study, **CON S**- Convenience sampling, **MOP**- Married or partner, **WMT-**Workplace mindfulness training, **EX**- Experience in years, **RWCT**- Randomized wait-list controlled trial, **E. Can**- European Canadian, **A. Can**- Asian Canadian, **E. AM**- European American, **A. AM**- Asian American, **AA**- African American, **NE**- North East, **DD**- Developmental Delay, **AU**-Autistic, **MBSR**- Mindfulness Based Stress Reduction, **PAD**- Positive Adult Development, **US DEIES**- US Department of Education Institute of Educational Sciences, **MAOT**- Medication assisted opioid treatment; **IV**- Independent Variable, **DV**- Dependent Variable, **(+)-** Positive, **(-)**- Negative, **R**- Relationship, **SIG-** Significant, **COR-** Correlation, **MP-**Mindful parenting, **PS-**Parental stress, **DEP-**Depression, **GMH-**General mental health, **DEC**-Decrease, **MH-** Mental health, **INC-**Increase, **CG-** Control group, **FU-**Follow-up, **IMP-**Improving, **SE**- self-efficacy, **ELE-**Elementary school, **P/S-** Preschool, **H/S-**High School, **SD**- Standard deviation, **ACE-** Adverse childhood events, **SR-**self report, **SSS-** small sample size, **QE,-**Quasi-experimental

Appendix B

Table 2

Synthesis Table

Studies		Becker	Cormack	Crain	Harris	Jennings	Jennings	Molloy Elreda	Reiser	Rhodes	Saylor
Basics	Year	2017	2018	2016	2016	2013	2015	2018	2018	2016	2018
	LOE	IV	VI	II	II	II	II	II	III	II	VI
	Design	COR S CR S	GT	RCT	RCT waitlist	RCT	RCT	RCT	QE/ Mixed	RCT	Case study
	Teachers	X		X	X	X	X	X	X		X
	General pop		X							X	

Key: **MBI-** Mindfulness-based intervention, **SI-** Self- identified, **T-** Teacher, **TR-** Trainer/teacher, **S-** Student, **F**-Female, **M**-Male, **GT**- Grounded theory, **MI**- Mindfulness, **CR S-** Cross-sectional, **COR S**- Correlational study, **CON S**- Convenience sampling, **MOP**- Married or partner, **WMT-**Workplace mindfulness training, **EX**- Experience in years, **RWCT**- Randomized wait-list controlled trial, **E. Can**- European Canadian, **A. Can**- Asian Canadian, **E. AM**- European American, **A. AM**- Asian American, **AA**- African American, **NE**- North East, **DD**- Developmental Delay, **AU**-Autistic, **MBSR**- Mindfulness Based Stress Reduction, **PAD**- Positive Adult Development, **US DEIES**- US Department of Education Institute of Educational Sciences, **MAOT**- Medication assisted opioid treatment; **IV**- Independent Variable, **DV**- Dependent Variable, **(+)-** Positive, **(-)**- Negative, **R**- Relationship, **SIG-** Significant, **COR-** Correlation, **MP-**Mindful parenting, **PS-**Parental stress, **DEP-**Depression, **GMH-**General mental health, **DEC-**Decrease, **MH-** Mental health, **INC-**Increase, **CG-** Control group, **FU-**Follow-up, **IMP-**Improving, **SE**- self-efficacy, **ELE-**Elementary school, **P/S-** Preschool, **H/S-**High School, **SD**- Standard deviation, **ACE-** Adverse childhood events, **SR-**self report, **SSS-** small sample size

	Country	USA	ENG	CAN USA	USA	USA	USA	USA	USA	USA	USA
	Bias	SR	0	0	Creator of program	HS	0	0	RB	0	SSS
	# of participants	1001	12	113	64	53	35	224	45	49	5

Key: **MBI-** Mindfulness-based intervention, **SI-** Self- identified, **T-** Teacher, **TR-** Trainer/teacher, **S-** Student, **F**-Female, **M**-Male, **GT**- Grounded theory, **MI**- Mindfulness, **CR S-** Cross-sectional, **COR S**- Correlational study, **CON S**- Convenience sampling, **MOP**- Married or partner, **WMT-**Workplace mindfulness training, **EX**- Experience in years, **RWCT**- Randomized wait-list controlled trial, **E. Can**- European Canadian, **A. Can**- Asian Canadian, **E. AM**- European American, **A. AM**- Asian American, **AA**- African American, **NE**- North East, **DD**- Developmental Delay, **AU**-Autistic, **MBSR**- Mindfulness Based Stress Reduction, **PAD**- Positive Adult Development, **US DEIES**- US Department of Education Institute of Educational Sciences, **MAOT**- Medication assisted opioid treatment; **IV**- Independent Variable, **DV**- Dependent Variable, **(+)-** Positive, **(-)**- Negative, **R**- Relationship, **SIG-** Significant, **COR-** Correlation, **MP-**Mindful parenting, **PS-**Parental stress, **DEP-**Depression, **GMH-**General mental health, **DEC-**Decrease, **MH-** Mental health, **INC-**Increase, **CG-** Control group, **FU-**Follow-up, **IMP-**Improving, **SE**- self-efficacy, **ELE-**Elementary school, **P/S-** Preschool, **H/S-**High School, **SD**- Standard deviation, **ACE-** Adverse childhood events, **SR-**self report, **SSS-** small sample size

	Tools Utilized	CAMS-R STRS CES-D JCQ	Semi structured interview	FFMQ Job rumination	FFMQ PANAS ERQ DTS	PANAS ERQ DPS CES-D TSES MBI TUS FFMQ CAQ	FFMQ PANAS BDI MBI SCS CLASS TES TRI	CLASS Perceived Stress Scale Competitiveness of the TUS	CARD 114-item job satisfaction scale FFMQ-SF	CAPS DES BDI IASC-TRA SLESQ	Case study

Key: **MBI-** Mindfulness-based intervention, **SI-** Self- identified, **T-** Teacher, **TR-** Trainer/teacher, **S-** Student, **F**-Female, **M**-Male, **GT**- Grounded theory, **MI**- Mindfulness, **CR S-** Cross-sectional, **COR S**- Correlational study, **CON S**- Convenience sampling, **MOP**- Married or partner, **WMT-**Workplace mindfulness training, **EX**- Experience in years, **RWCT**- Randomized wait-list controlled trial, **E. Can**- European Canadian, **A. Can**- Asian Canadian, **E. AM**- European American, **A. AM**- Asian American, **AA**- African American, **NE**- North East, **DD**- Developmental Delay, **AU**-Autistic, **MBSR**- Mindfulness Based Stress Reduction, **PAD**- Positive Adult Development, **US DEIES**- US Department of Education Institute of Educational Sciences, **MAOT**- Medication assisted opioid treatment; **IV**- Independent Variable, **DV**- Dependent Variable, **(+)-** Positive, **(-)**- Negative, **R**- Relationship, **SIG-** Significant, **COR-** Correlation, **MP-**Mindful parenting, **PS-**Parental stress, **DEP-**Depression, **GMH-**General mental health, **DEC-**Decrease, **MH-** Mental health, **INC-**Increase, **CG-** Control group, **FU-**Follow-up, **IMP-**Improving, **SE**- self-efficacy, **ELE-**Elementary school, **P/S-** Preschool, **H/S-**High School, **SD**- Standard deviation, **ACE-** Adverse childhood events, **SR-**self report, **SSS-** small sample size

Interventions	Yoga		X	X	X	X				X	
	MBI		X	X	X	X			X		X
	Survey only	X					X	X			
Outcomes	Work place stress	↓							↓		
	Depression	↓							↓	↓	
	Mindfulness	X		↑	↑				↑		
	Emotionally supportive						Observe sig cor sensitivity to discipline- Depression neg cor with sensitivity of discipline	Teachers with high stress Inc emotionally supportive if high in interpersonal mindfulness			
	Positive affect				↑				↑		

Key: **MBI-** Mindfulness-based intervention, **SI-** Self- identified, **T-** Teacher, **TR-** Trainer/teacher, **S-** Student, **F**-Female, **M**-Male, **GT**- Grounded theory, **MI**- Mindfulness, **CR S-** Cross-sectional, **COR S**- Correlational study, **CON S**- Convenience sampling, **MOP**- Married or partner, **WMT-**Workplace mindfulness training, **EX**- Experience in years, **RWCT**- Randomized wait-list controlled trial, **E. Can**- European Canadian, **A. Can**- Asian Canadian, **E. AM**- European American, **A. AM**- Asian American, **AA**- African American, **NE**- North East, **DD**- Developmental Delay, **AU**-Autistic, **MBSR**- Mindfulness Based Stress Reduction, **PAD**- Positive Adult Development, **US DEIES**- US Department of Education Institute of Educational Sciences, **MAOT**- Medication assisted opioid treatment; **IV**- Independent Variable, **DV**- Dependent Variable, **(+)-** Positive, **(-)**- Negative, **R**- Relationship, **SIG-** Significant, **COR-** Correlation, **MP-**Mindful parenting, **PS-**Parental stress, **DEP-**Depression, **GMH-**General mental health, **DEC**-Decrease, **MH-** Mental health, **INC-**Increase, **CG-** Control group, **FU-**Follow-up, **IMP-**Improving, **SE**- self-efficacy, **ELE-**Elementary school, **P/S-** Preschool, **H/S-**High School, **SD**- Standard deviation, **ACE-** Adverse childhood events, **SR-**self report, **SSS-** small sample size

	Distress tolerance				↑						
	Child/Adult (parent or teacher) relationship	↑				↑					
	Job rumination			↓					↓		
	Classroom management				↑		depression NEG COR		↑		
	Classroom organization						depression NEG COR				
	Instructional support						depression NEG COR				

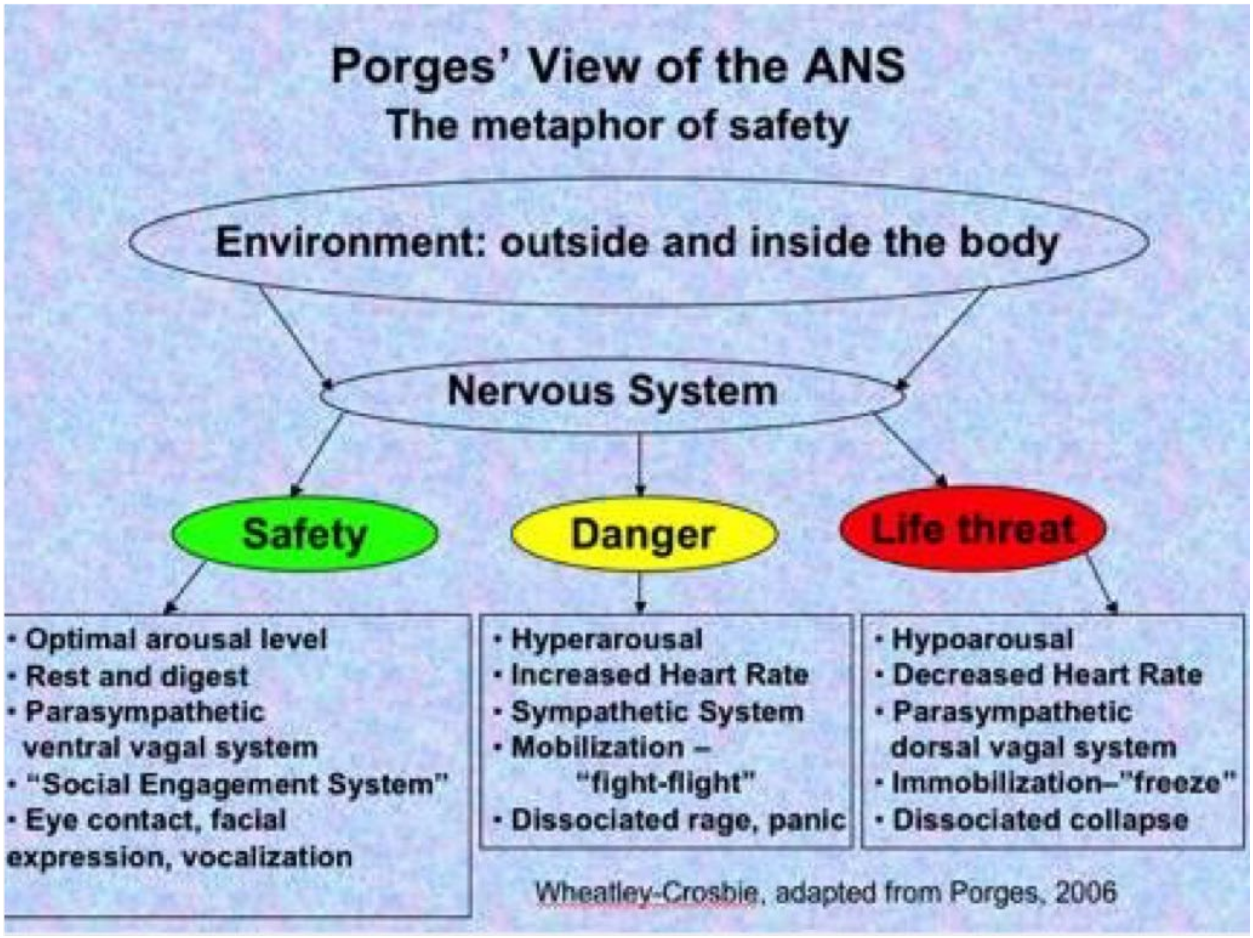
Key: **MBI-** Mindfulness-based intervention, **SI-** Self- identified, **T-** Teacher, **TR-** Trainer/teacher, **S-** Student, **F**-Female, **M**-Male, **GT**- Grounded theory, **MI**- Mindfulness, **CR S-** Cross-sectional, **COR S**- Correlational study, **CON S**- Convenience sampling, **MOP**- Married or partner, **WMT-**Workplace mindfulness training, **EX**- Experience in years, **RWCT**- Randomized wait-list controlled trial, **E. Can**- European Canadian, **A. Can**- Asian Canadian, **E. AM**- European American, **A. AM**- Asian American, **AA**- African American, **NE**- North East, **DD**- Developmental Delay, **AU**-Autistic, **MBSR**- Mindfulness Based Stress Reduction, **PAD**- Positive Adult Development, **US DEIES**- US Department of Education Institute of Educational Sciences, **MAOT**- Medication assisted opioid treatment; **IV**- Independent Variable, **DV**- Dependent Variable, **(+)-** Positive, **(-)**- Negative, **R**- Relationship, **SIG-** Significant, **COR-** Correlation, **MP-**Mindful parenting, **PS-**Parental stress, **DEP-**Depression, **GMH-**General mental health, **DEC-**Decrease, **MH-** Mental health, **INC-**Increase, **CG-** Control group, **FU-**Follow-up, **IMP-**Improving, **SE**- self-efficacy, **ELE-**Elementary school, **P/S-** Preschool, **H/S-**High School, **SD**- Standard deviation, **ACE-** Adverse childhood events, **SR-**self report, **SSS-** small sample size

	Bad Mood at Work			↓							
	General Mental Health										
	DBP				↓						
	PTSD sx									↓	
	Self-awareness					↑					
	Daily Physical sx				↓	↓					
	Burnout					↓					

Key: **MBI-** Mindfulness-based intervention, **SI-** Self- identified, **T-** Teacher, **TR-** Trainer/teacher, **S-** Student, **F**-Female, **M**-Male, **GT**- Grounded theory, **MI**- Mindfulness, **CR S-** Cross-sectional, **COR S**- Correlational study, **CON S**- Convenience sampling, **MOP**- Married or partner, **WMT-**Workplace mindfulness training, **EX**- Experience in years, **RWCT**- Randomized wait-list controlled trial, **E. Can**- European Canadian, **A. Can**- Asian Canadian, **E. AM**- European American, **A. AM**- Asian American, **AA**- African American, **NE**- North East, **DD**- Developmental Delay, **AU**-Autistic, **MBSR**- Mindfulness Based Stress Reduction, **PAD**- Positive Adult Development, **US DEIES**- US Department of Education Institute of Educational Sciences, **MAOT**- Medication assisted opioid treatment; **IV**- Independent Variable, **DV**- Dependent Variable, **(+)-** Positive, **(-)**- Negative, **R**- Relationship, **SIG-** Significant, **COR-** Correlation, **MP-**Mindful parenting, **PS-**Parental stress, **DEP-**Depression, **GMH-**General mental health, **DEC**-Decrease, **MH-** Mental health, **INC-**Increase, **CG-** Control group, **FU-**Follow-up, **IMP-**Improving, **SE**- self-efficacy, **ELE-**Elementary school, **P/S-** Preschool, **H/S-**High School, **SD**- Standard deviation, **ACE-** Adverse childhood events, **SR-**self report, **SSS-** small sample size

Appendix C

Polyvagal Theory



Appendix D

Iowa Model

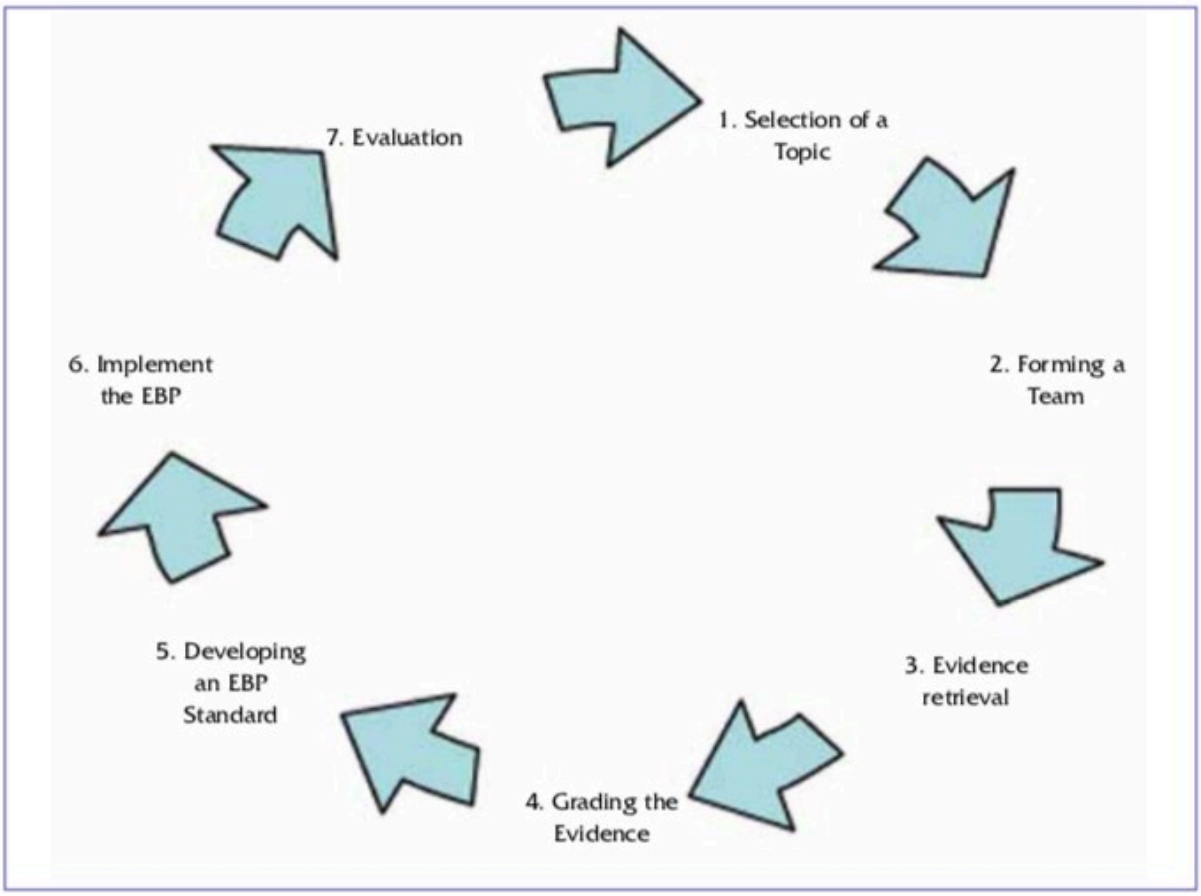


Figure 1. Seven steps of the IOWA model

Appendix E

Five Factor Mindfulness Questionnaire Study Results

Paired Samples T-test
Five Factor Mindfulness Questionnaire Comparing Pre and Post-Intervention Results (n=17)

	Mean pre-intervention	Mean post-intervention	t	Sig. (2-tailed)
Observing	24.47	25.24	-.48	.635
Describing	23.82	27.65	-3.53	.003 (sig)
Awareness	24.18	26.24	-1.37	.190
Nonjudging	24.82	27.82	-1.58	.134
Nonreactivity	19.91	21.41	-.21	.026 (sig)

Appendix F

First Things First Star Rating Chart for CLASS Tool

QUALITY FIRST
FIRST THINGS FIRST

STAR RATINGS

RISING STAR	PROGRESSING STAR	QUALITY	QUALITY PLUS	HIGHEST QUALITY
Committed to quality improvement	Approaching quality standards	Meets quality standards	Exceeds quality standards	Far exceeds quality standards
ERS Average Program Score 1.0 – 1.99	**ERS Average Program Score** 2.0 – 2.99	**ERS Average Program Score** 3.0 – 3.99 *No classroom score below 2.5*	**ERS Average Program Score** 4.0 – 4.99 *No classroom score below 3.0*	**ERS Average Program Score** 5.0 and above *No classroom score below 3.0*
CLASS™ Average Program Score N/A	**CLASS™ Average Program Score** N/A	**CLASS™ Average Program Score** ES* 4.5 · CO 4.5 · IS* 2.0	**CLASS™ Average Program Score** ES* 5.0 · CO 5.0 · IS* 2.5	**CLASS™ Average Program Score** ES* 6.0 · CO 6.0 · IS* 3.0
Quality First Points Scale N/A	**Quality First Points Scale** N/A	**Quality First Points Scale** *6-point minimum* SQ 2 · AP 2 · CA 2	**Quality First Points Scale** *10-point minimum* SQ 2 · AP 2 · CA 2	**Quality First Points Scale** *12-point minimum* SQ 4 · AP 4 · CA 4

ERS = Environment Rating Scales
ECERS: Early Childhood Environment
ITERS: Infant/Toddler Environment
FCCERS: Family Child Care Environment

CLASS™ = Classroom Assessment Scoring System™
ES*: Emotional Support Domain (Pre-K and Toddler)
CO: Classroom Organization Domain
IS*: Instructional Support /Engaged Support for Learning Domain (Pre-K and Toddler)

Quality First Points Scale
SQ: Staff Qualifications
AP: Administrative Practices
CA: Curriculum and Assessment

14 ☐ CLASS Manual, Infant

Table 2.1. Scoring guidelines for the Classroom Assessment Scoring System® (CLASS®) Infant tool

Low range		Mid-range			High range	
1	2	3	4	5	6	7
The low-range description fits the classroom and/or teacher very well. All, or almost all, relevant indicators in the low range are present.	The low-range description mostly fits the classroom and/or teacher, but there are one or two indicators in the mid-range.	The mid-range description mostly fits the classroom and/or teacher, but there are one or two indicators in the low range.	The mid-range description fits the classroom and/or teacher very well. All, or almost all, relevant indicators in the mid-range are present.	The mid-range description mostly fits the classroom and/or teacher, but there are one or two indicators in the high range.	The high-range description mostly fits the classroom and/or teacher, but there are one or two indicators in the mid-range.	The high-range description fits the classroom and/or teacher very well. All, or almost all, relevant indicators in the high range are present.

Appendix G

Approval Letter from Arizona State University Institutional Review Board

APPROVAL: EXPEDITED REVIEW

Lesly Kelly
CONHI: Research Faculty and Staff 602/496-0809
Lesly.Kelly@asu.edu

Dear Lesly Kelly:
On 8/21/2018 the ASU IRB reviewed the following protocol:

Type of Review:	Initial Study
Title:	A Trauma-Informed Mindfulness Intervention to Improve Early Childhood Classroom Environments
Investigator:	Lesly Kelly
IRB ID:	STUDY00008517
Category of review:	(7)(b) Social science methods, (7)(a) Behavioral research
Funding:	None
Grant Title:	None
Grant ID:	None
Documents Reviewed:	• Appendix B, Category: Recruitment Materials; • Appendix M, Category: Resource list; • Appendix E, Category: Technical materials/diagrams; • Appendix G, Category: Measures (Survey questions/Interview questions /interview guides/focus group questions); • Appendix I, Category: Measures (Survey questions/Interview questions /interview guides/focus group questions); • Appendix C, Category: Technical materials/diagrams; • Appendix J, Category: Measures (Survey questions/Interview questions /interview guides/focus group questions); • Appendix D, Category: Technical materials/diagrams;

• Appendix H, Category: Measures (Survey questions/Interview questions /interview guides/focus group questions); • FAEHS Letter.pdf, Category: Off-site authorizations (school permission, other IRB approvals, Tribal permission etc); • Protocol, Category: IRB Protocol; • Appendix K, Category: Measures (Survey questions/Interview questions /interview guides/focus group questions); • Appendix L, Category: Measures (Survey questions/Interview questions /interview guides/focus group questions); • Appendix A, Category: Consent Form;

The IRB approved the protocol from 8/21/2018 to 8/20/2019 inclusive. Three weeks before 8/20/2019 you are to submit a completed Continuing Review application and required attachments to request continuing approval or closure.

If continuing review approval is not granted before the expiration date of 8/20/2019 approval of this protocol expires on that date. When consent is appropriate, you must use final, watermarked versions available under the “Documents” tab in ERA-IRB.

In conducting this protocol you are required to follow the requirements listed in the INVESTIGATOR MANUAL (HRP-103).

Sincerely,

IRB Administrator

cc: Heather Ryan Heather Ryan

Lesly Kelly Ann Guthery

Appendix H

ACE Questionnaire

Adverse Childhood Experience (ACE) Questionnaire Finding your ACE Score ra hbr 10 24 06

While you were growing up, during your first 18 years of life:

1. Did a parent or other adult in the household **often** ...
Swear at you, insult you, put you down, or humiliate you?

or

Act in a way that made you afraid that you might be physically hurt?

Yes No

2. Did a parent or other adult in the household **often** ... Push, grab, slap, or throw something at you?

or
Ever hit you so hard that you had marks or were injured?

Yes No

If yes enter 1

If yes enter 1

3. Did an adult or person at least 5 years older than you **ever**...
Touch or fondle you or have you touch their body in a sexual way?

or

Try to or actually have oral, anal, or vaginal sex with you?
Yes No If yes enter 1

4. Did you **often** feel that ...
No one in your family loved you or thought you were important or special?

or

Your family didn't look out for each other, feel close to each other, or support each other? Yes No If yes enter 1 _____

5. Did you **often** feel that ...
You didn't have enough to eat, had to wear dirty clothes, and had no one to protect you?

or

Your parents were too drunk or high to take care of you or take you to the doctor if you needed it?

Yes No If yes enter 1

6. Were your parents **ever** separated or divorced?
Yes No If yes enter 1

7. Was your mother or stepmother:
Often pushed, grabbed, slapped, or had something thrown at her?

or
Sometimes or often kicked, bitten, hit with a fist, or hit with something hard?

or
Ever repeatedly hit over at least a few minutes or threatened with a gun or knife?

Yes No If yes enter 1

8. Did you live with anyone who was a problem drinker or alcoholic or who used street drugs?
Yes No If yes enter 1 _____

9. Was a household member depressed or mentally ill or did a household member attempt suicide?

Yes No

10. Did a household member go to prison? Yes No

If yes enter 1 _____ If yes enter 1 _____

Now add up your "Yes" answers:

_____

This is your ACE Score

Appendix I

Five Facet Mindfulness Questionnaire Tool

Five Facet Mindfulness Questionnaire (FFMQ) Ruth A. Baer, Ph.D.
University of Kentucky

Please rate each of the following statements using the scale provided. Write the number in the blank that best describes your own opinion of what is generally true for you.

_____ 1. When I'm walking, I deliberately notice the sensations of my body moving. _____ 2. I'm good at finding words to describe my feelings.
_____ 3. I criticize myself for having irrational or inappropriate emotions.
_____ 4. I perceive my feelings and emotions without having to react to them. _____ 5. When I do things, my mind wanders off and I'm easily distracted.

_____ 6. When I take a shower or bath, I stay alert to the sensations of water on my body.
_____ 7. I can easily put my beliefs, opinions, and expectations into words.
_____ 8. I don't pay attention to what I'm doing because I'm daydreaming, worrying, or

otherwise distracted.
_____ 9. I watch my feelings without getting lost in them.

_____ 10. I tell myself I shouldn't be feeling the way I'm feeling.
_____ 11. I notice how foods and drinks affect my thoughts, bodily sensations, and emotions.
_____ 12. It's hard for me to find the words to describe what I'm thinking.
_____ 13. I am easily distracted.
_____ 14. I believe some of my thoughts are abnormal or bad and I shouldn't think that way.
_____ 15. I pay attention to sensations, such as the wind in my hair or sun on my face.
_____ 16. I have trouble thinking of the right words to express how I feel about things
_____ 17. I make judgments about whether my thoughts are good or bad.
_____ 18. I find it difficult to stay focused on what's happening in the present.
_____ 19. When I have distressing thoughts or images, I "step back" and am aware of the

thought or image without getting taken over by it.
_____ 20. I pay attention to sounds, such as clocks ticking, birds chirping, or cars passing. _____ 21. In difficult situations, I can pause without immediately reacting.

1	2	3	4	5
never or very rarely true	rarely true	sometimes true	often true	very often or always true

FFMQ p. 2

1	2	3	4	5
never or very rarely true	rarely true	sometimes true	often true	very often or always true

_____ 22. When I have a sensation in my body, it's difficult for me to describe it because I can't find the right words.

_____ 23. It seems I am "running on automatic" without much awareness of what I'm doing.
_____24. When I have distressing thoughts or images, I feel calm soon after.

_____ 25. I tell myself that I shouldn't be thinking the way I'm thinking.
_____ 26. I notice the smells and aromas of things.
_____ 27. Even when I'm feeling terribly upset, I can find a way to put it into words.
_____ 28. I rush through activities without being really attentive to them.
_____ 29. When I have distressing thoughts or images I am able just to notice them without

reacting.
_____ 30. I think some of my emotions are bad or inappropriate and I shouldn't feel them.
_____ 31. I notice visual elements in art or nature, such as colors, shapes, textures, or patterns

of light and shadow.
_____ 32. My natural tendency is to put my experiences into words.
_____ 33. When I have distressing thoughts or images, I just notice them and let them go.
_____ 34. I do jobs or tasks automatically without being aware of what I'm doing.
_____ 35. When I have distressing thoughts or images, I judge myself as good or bad,

depending what the thought/image is about.
_____ 36. I pay attention to how my emotions affect my thoughts and behavior. _____ 37. I can usually describe how I feel at the moment in considerable detail. _____ 38. I find myself doing

things without paying attention.
_____ 39. I disapprove of myself when I have irrational ideas.

FFMQ Scoring instructions

For all items marked “R” the scoring must be reversed. Change 1 to 5, 2 to 4, 4 to 2, and 5 to 1 (3 stays unchanged). Then sum the scores for each subscale.

Observing

1, 6, 11, 15, 20, 26, 31, 36

Describing

2, 7, 12R, 16R, 22R, 27, 32, 37

Acting with awareness

5R, 8R, 13R, 18R, 23R, 28R, 34R, 38R

Nonjudging of inner experience

3R, 10R, 14R, 17R, 25R, 30R, 35R, 39R

Nonreactivity to inner experience

4, 9, 19, 21, 24, 29, 33