

Mindfulness Training Using CARE

Jane Brooker, Margaret O'Connor, Denise Roseland

About the Authors

Jane Brooker (jbrooker3225@gmail.com) is an Instructor in the Workforce Education and Development Department of Learning and Performance Systems in the College of Education at The Pennsylvania State University.

Margaret O'Connor (moconno1@bloomu.edu) is a Professor of Business Education, Department of Information Technology, Analytics, and Business Education, at Bloomsburg University of PA.

Denise Roseland (roseland@uww.edu) is an Assistant Professor of Business, Marketing, and Computer Science Education, Department of Curriculum and Instruction, at the University of Wisconsin-Whitewater.

Abstract

The use of mindfulness techniques in K-12 education has advanced steadily over the past 20 years in the United States. Mindfulness has recently gained international attention, as people, companies, and schools look to develop coping mechanisms for work overload, stress, and anxiety. Although several mindfulness studies have been performed with students in a classroom setting in several disciplines, there is limited empirical research on mindfulness training for educators. This study sought to understand how K-12 educators in one school district enhanced their mindfulness characteristics using the Cultivating Awareness and Resilience in Education (CARE) for Teachers Training. Led by a business educator, nine K-12 educators volunteered to participate in an 8-week, 18-hour CARE for Teacher's professional development program that applied mindfulness techniques. Two validated scales were used to measure burnout and mindfulness in a pre/post survey. Results demonstrated an increased level of mindfulness in interactions with students after participation in the training.

Keywords: mindfulness, Cultivating Awareness and Resilience in Education (CARE) for Teachers Training, Mindfulness-Based Stress Reduction (MBSR), Maslach Burnout Inventory-Educators' Survey (MBI-ES), Interpersonal Mindfulness in Teaching Scale (IMTS), stress levels, burnout

Mindfulness can be defined as being present in this "now" moment (Baer, 2003), being nonjudgmental (Baer et al., 2009), and having compassion for yourself and others (Sanders, 2010). The practice of mindfulness originated in Eastern spiritual teachings and practices (Hooker & Fodor, 2008; Kabat-Zinn, 2003). Modern mindfulness has its history dating back 40 years in the United States (Langer & Moldoveanu, 2000; Shapiro, 2009), with John Kabat-Zinn being credited for the Westernization of mindfulness into the healthcare and education fields. Kabat-Zinn, along with two colleagues, founded Mindfulness-Based Stress Reduction (MBSR) therapy in 1979 (Kabat-Zinn, 2003; Shapiro, 2009). Frank

et al. (2015) reported significant gains in teacher efficacy to self-regulate after participation in mindfulness-based stress reduction (MBSR) programs. MBSR is currently growing internationally throughout diverse industries and groups.

Mindfulness in K-12 education has become increasingly necessary. The facts are revealing. Nearly half of new teachers leave the profession within their first five years (Garcia & Weiss, 2019). Furthermore, according to Garcia & Weiss (2019), nearly 13.8% of educators leave the profession every year. So, why is mindfulness important to education and specifically business education? To begin, teacher attrition rates

correlate to teacher stress levels (Gold et al., 2010; Skaalvik & Skaalvik, 2017). Gold et al. (2010) indicated that stress has a detrimental effect on teacher's health and well-being. Several factors are attributed to these disconcerting details concerning teacher stress in today's K-12 (kindergarten – twelfth grade) schools. Business educators can be the leaders in facilitating this positive change in schools eventually filtering down to their students who enter the business world.

Napoli (2004) stated that a source for teachers' stress is managing students' socio-emotional challenges. Balancing classroom management with quality learning is a large, sometimes insurmountable task for educators leading to unwelcome, workplace stress. Administrators are recognizing that finding a solution is more complicated than anyone realized. How do educators find peace and reduce harmful stress with their students, colleagues, or themselves?

Teachers have a significant, lasting effect on countless individuals. As their stress decreases, their effectiveness in the classroom improves. Determining a solution to the problem of teacher stress in the workplace may be found in mindfulness-based training. Cultivating Awareness and Resilience in Education (CARE) is a program for teachers designed to train in mindfulness practices to help them manage stress in their personal lives and with their students (Meiklejohn et al., 2012). CARE "is a mindfulness-based professional development program designed to reduce stress and improve teachers' performance and classroom learning environments" (Jennings et al., 2013, p. 374). CARE has been used in education for over 14 years with positive results (Jennings, 2015).

CARE training was created by Patricia Jennings, Christa Turksma, and Richard C. Brown in 2007. Currently, CARE is the only mindfulness-based training for educators that has been evaluated using a randomized controlled trial of a large scale. CARE trainers help teachers recognize and manage their emotions to avoid negatively impacting the classroom (Gewertz, 2020). See Table 1 for the CARE Program Components.

CARE was specifically chosen for this research because it was created for teachers and by teachers. Jennings (2015) states in her book, *Mindfulness for teachers: Simple skills for peace and productivity in the classroom*, that the CARE training was specifically designed to "help teachers cultivate the skills they need to promote a calm, relaxed, but enlivened learning environment that can prepare children for the future by fostering creativity, innovation, collaboration, and cooperation" (p. xxv).

The approach followed in the CARE program includes the teaching and practice of: 1) emotional skills instruction; 2) mindfulness/stress reduction practices; and 3) caring and listening practices. Because emotional exhaustion can be a contributor to teacher burnout and often interferes with teachers' professional and interpersonal functioning, CARE introduces emotional skills instruction drawn from the neuroscience of emotion. This includes a combination of "didactic instruction and experiential activities (e.g., reflective practices and role-plays) to support teachers' recognition of emotional states and the exploration of their habitual emotional patterns" (Jennings et al., 2011, p. 38).

CARE also introduces a series of mindfulness activities like short periods of silent reflection that later extend to activities that "bring mindfulness into aspects of daily living such as standing, walking, being present in front of a group, listening to others" (Jennings et al., 2011, p. 39). Through these activities, teachers learn to bring greater awareness to their classroom organization and their relationships with students, parents, and colleagues.

Lastly, to promote empathy and compassion, CARE introduces "caring practice" and "mindful listening." Teachers learn caring practice by engaging in a silent reflection focused on generating feelings of care for themselves and others. The inclusion of mindful listening exercises "develops teachers' skill to simply listen to students and notice (without acting upon) emotional reactions such as urges to interrupt, offer advice, or judge." (Jennings et al., 2011, p. 39). The CARE for Teachers Logic Model (see Figure 1) shows the desired outcomes for this study.

Purpose of the Study and Research Questions

The purpose of this case study was to determine the effects of CARE for Teachers training on the K-12 educator in the area of stress reduction and mindfulness level. The following research questions were investigated:

1. Is there an effect of participation in a CARE for Teachers' program on scores measuring stress reduction?
2. Is there an effect of participation in a CARE for Teachers' program on scores measuring mindfulness?

Review of Literature

Beginnings and Definition of Mindfulness

Mindfulness originated in Eastern spiritual teaching and practices including Buddhist mindfulness meditations and yoga (Hooker & Fodor, 2008; Kabat-Zinn, 2003). Modern mindfulness, as developed in the United States, dates back over 40 years (Langer & Moldoveanu, 2000; Shapiro, 2009). It is easy to mistakenly interchange mindfulness with meditation. Mindfulness goes a step further. Mindfulness embodies the whole of being aware, present, and nonjudgmental. Given the recent environmental trends and its usefulness to help people have a better quality of life, mindfulness information, education, and training is abundant in many disciplines, including business, medicine, and education.

John Kabat-Zinn, who is credited with the Westernization of mindfulness into the health-CARE and education fields, founded Mindfulness-Based Stress Reduction (MBSR) in 1979 (Kabat-Zinn, 2003; Shapiro, 2009). It is important to note that mindfulness is not linked to a specific religion even though it has origins in the Buddhist religion. Each religion has its own interpretation and practices of mindfulness. Rechtschaffen (2014) stated, “Mindfulness does not belong to Buddhism, but the modern teachings of mindfulness have been influenced by the practitioners and scholars of the lineage.” (p. 37).

Mindfulness is being aware and having an acceptance to present surroundings in an open and nonjudgmental manner (Baer et al., 2009; Brown & Ryan, 2003; Epstein, 1999; Jennings & Jennings, 2013; Kabat-Zinn, 2003; Mapel, 2012; Meiklejohn et al., 2012; Sanders, 2010). Mindfulness is focusing one’s attention to internal and external experiences in the present moment (Baer, 2003). The Construct of Mindfulness defines mindfulness as “including (a) a greater sensitivity to one’s environment, (b) more openness to new information, (c) the creation of new categories for structuring perception, and (d) enhanced awareness of multiple perspectives in problem solving” (Langer & Moldoveanu, 2000, p. 2).

Mindfulness, defined by Sanders (2010, p. 19), is a “mindful state characterized by less judgment, prejudice, and worry and more openness, acceptance, and empathy. Mindfulness is a human, mental function that enhances clarity of thought and a more heart-felt engagement with life.” Borker (2013) wrote that the foundation to all mindfulness practices is meditation. Individually, each person is calm and focused within the mind and body. Mindful practices

include: meditation, mindful breathing, and mindful contemplation activities such as focusing on an object or walking (Borker, 2013). Pickert (2014) suggests that “Finding peace in a stressed-out, digitally dependent culture may just be a matter of thinking differently” (p. 1).

Mindfulness is more than just being in the present. When questioned about mindfulness, Peter Montminy, Ph.D. Clinical Psychologist and Mindfulness Teacher, explained that mindfulness is not only being in the present moment, but it is having an awareness and acceptance with social compassion. Montminy also stated, “mindfulness is the gateway skill to the soft skills needed to be successful in employment and other life skills” (P. Montminy, personal communication, December 4, 2014). Montminy works extensively with children in mindfulness training. He stresses collaborative work with child, parent, and teacher to effectively prevent toxic stress. He stated the mindfulness-training effects in his patients are seen every day.

Mindfulness Training

Benefits of mindfulness encompass positive psychology (Huppert & Johnson, 2010). Huppert and Johnson’s (2010) study concluded that resilience, well-being, and temperament were all increased with mindfulness training. Another study showed an increase in positivity, less depression, greater empathy, reduction of stress, and decrease in substance abuse as a result of mindfulness training (Broderick & Jennings, 2012). Roeser et al. (2013) concluded that mindfulness training was successful in reducing teacher stress.

Grossman et al., (2004) in a pivotal study established that mindfulness training educates individuals to manage their stress successfully. Training is beneficial only if it leads to implementation beyond the actual training. Stress will be present on a daily basis for teachers, but how it is managed is crucial for the self-efficacy of their emotional being and their value and productivity as an educator.

An important aspect of mindfulness is developing it over a period of time with continual commitment and practice. Mindfulness does not happen instantly. Practice can be in the form of a structured or unstructured approach and requires a daily habit. With this consistency, individual mindfulness will mature and strengthen over time.

Mindfulness training and meditation is the best way to cultivate this regular practice. “As a mind training

technique, mindfulness meditation offers processes to rest and tame the mind, experience physical sensations, and release emotional residue in the body” (Lampe & Engleman-Lampe, 2012, p. 107). Awareness of breath is a mindful skill that is an integral part of mindfulness training. This “strengthens the mind’s ability for concentration” (Lampe & Engleman-Lampe, 2012, p. 100). In addition to formal mindfulness training and practices, informal ways to bring mindfulness into one’s life can be as simple as being more attuned to “eating, showering, walking, or washing dishes instead of multi-tasking” (Lampe & Engleman-Lampe, 2012, p. 100). Baer et al., (2004) found emotional intelligence and life satisfaction are significant benefits of mindfulness.

Teacher Stress

It is estimated that a third of newly hired teachers leave during their first three years and that almost half leave during their first five years (Sutcher et al., 2016). Furthermore, 13.8% of teachers leave the teaching workforce annually (Garcia & Weiss, 2019). Skaalvik and Skaalvik (2016) uncovered seven classifications of teacher stressors: student misbehavior, overload of work and time pressure, adapting to student diversity needs in the classroom, lack of significance, colleague conflicts, lack of administrative support, and lack of school mission and goals. An added stressor is student standardized-test scores linked to an educator’s evaluation. The educator finds themselves being conflicted between teaching to the test and engaging students in meaningful and beneficial learning.

Furthermore, teachers most often cite dissatisfaction as an important reason for voluntarily leaving the profession. Frequent areas of dissatisfaction noted by teachers who left the profession voluntarily were: 1) testing and accountability measures (25%); 2) unhappiness with the school administration (21%); and 3) dissatisfaction with the teaching career (21%), which likely has to do with many factors including stress (Carver-Thomas & Darling-Hammond, 2017).

Research is clear that rates of turnover negatively impact student learning, which means that students in schools with high turnover and fewer experienced teachers are at a decided educational disadvantage - making it paramount to understand the role stress plays in a teacher’s job persistence (Marzano et al., 2003; Osher et al., 2008). Jennings and Greenberg’s (2009) Prosocial Classroom theoretical model is one model that advances the understanding of links between teachers’ social and emotional competence (SEC) and classroom climate and student outcomes. According to the model, for a teacher to address the

management, instructional, and emotional challenges of the classroom, teachers must apply a high degree of social and emotional competence in order to positively impact student outcomes and reduce their own stress and burnout. When teachers lack the level of SEC demanded in their school setting, classroom management can suffer and there are reduced levels of on-task student behavior and performance (Marzano et al., 2003). When classroom climate deteriorates, the demands on a teacher increase, potentially triggering a teacher to experience a “burnout cascade” (Jennings & Greenberg, 2009, p. 492). Under these conditions, teachers’ responses to student behavior may become punitive exhibiting reactions that undermine student motivation and contribute to ongoing classroom disruption. Over time, this cycle may lead to teacher burnout (Tsouloupas et al., 2010) and sustained decline in teacher performance, as well as student behavior and achievement (Osher et al., 2008).

Mindfulness Training as Part of the Solution for Teacher Stress

Benefits of mindfulness training initially emerged in a small number of studies. These benefits include: enhanced self-regulation, greater brain development, better working memory attention which leads to increased academic achievement, increased awareness, decreased anxiety, improvements in mood which decreases depression, decreased health problems, and decreased mindlessness (Frank et al., 2014; Greenberg & Harris, 2012; Hooker & Fodor, 2008; Mapel, 2012; Meiklejohn et al., 2012). Recently, a number of randomized-controlled studies have investigated causal relationships between mindfulness-based interventions and stress reduction among teachers (Crain et al., 2017; Roeser et al., 2013) and improvements in classroom interactions (Flook et al., 2013).

CARE is a program designed to educate teachers through professional development in mindfulness practices to help them manage stress in their teaching position and with their students (Meiklejohn et al., 2012). CARE is designed to decrease stress and support teachers’ performance in the classroom (Jennings et al., 2013). Rechtschaffen (2014) emphasized that the qualities of a mindful teacher are: compassion, understanding, boundaries, attention, intention, and authenticity. CARE was specifically chosen for this research because it was created for teachers and by teachers.

There has been limited research on CARE training for teachers. However, one CARE study that produced significant results was a study of K-5 teachers in an

urban district. It found that mindfulness training, specifically the CARE for Teachers' program, had a significant, positive effect on educator stress, establishing this program as an effective professional development for educators in their socio-emotional being (Jennings et al., 2017).

Research Design and Methodology

This study was conducted to determine whether teachers participating in the CARE for Teachers professional development program experienced any effects related to stress reduction and increased level of mindfulness. Since the study was not mandated, the business researcher knew educators would be more likely to attend the 18-hour CARE training as opposed to the 30-hour training due to time commitment. Also, in discussion with the CARE trainer, the researcher thought it was in the best interest of the study to conduct the 18-hour training. This design fills an important gap in the existing research because this study was streamlined to 18 hours of CARE training versus the normal 30 hours of CARE training according to Christa Turksma, co-founder of CARE (C. Turksma, personal communication, April 20, 2018). CARE program training was delivered by a certified CARE instructor who met requirements of the co-founders of the program.

Setting and Participants

Participants were recruited from a rural, public school district with a student population of 1,437 and 109 educators from elementary and secondary levels. The school district is comprised of four buildings: three elementary and one junior and senior high school. All full-time teachers were eligible to participate in the study. There were no exclusion criteria and no restrictions based on demographic characteristics. Eighty-five percent (85%) were female and 15% were male. All nine participants self-identified as white. Participant ages ranged from 31-59. Participants had been teaching from 2 to 21 years.

Permission to recruit participants and conduct the research was approved by the superintendent of the school district. An initial recruitment email was sent in the summer of 2018 to all participants by the superintendent. Subsequent emails soliciting response were sent three additional times before the training. Private messages on social media were sent to applicable teachers. At the beginning of the 2018-19 school year, a brief informational presentation was shared at individual school buildings to inform teachers of the study and recruitment. School building principals approved this recruitment. No financial incentives were given to participants. Approval for

research was obtained in accordance with The Pennsylvania State University Institutional Review Board procedures prior to sending the recruitment email.

Research Procedures and Measures

Led by a business educator, the sample included full-time educators from four rural, K-12 schools in one school district. Teachers participated in the CARE program for a total commitment of 18 hours over eight (8) weeks. After teachers were recruited to participate and consent was obtained, participants completed a survey before and after the CARE program to assess changes in stress and mindfulness. The participating educators were introduced to "emotion skills instruction, mindful awareness practices, and caring and compassion practices" (Jennings et al., 2017, p. 377). See Table 1 for CARE Program Components. As an initial exploration, two constructs were sought: teacher burnout/stress and teacher mindfulness. While several instruments exist to measure either construct, one instrument for each construct was chosen, as described below.

A commitment to an 18-hour training (over 8 weeks) was communicated beginning on September 27 through November 15 on Thursdays after school for two hours with the first and final meeting lasting three hours for a total of 18 hours of training. Teachers agreed to participate in the CARE program with a certified CARE instructor who met requirements of the co-founders of the program. Classes consisted of mindfulness practice, breath awareness, small and large group discussions, and mindfulness skill-building activities. After the eighth week, the group completed the post-test containing the same items as the pre-test.

First, to measure teacher stress the Maslach Burnout Inventory-Educators' Survey (MBI-ES) (see Table 3) was used, which measures burnout levels in teachers (Maslach et al., 2001). Specifically, the MBI-ES measures the three dimensions of burnout as it relates to direct interaction of teachers with students. The survey contained 22 items which respondents rated on a 7-point scale from 0 = "Never" to 6 = "Every day". In validation studies, the items load to form three correlated factors that describe burnout: 1) feelings of overwhelming *emotional exhaustion* (EE), 2) *depersonalization* and detachment from the job (DP), and 3) inefficacy or lack of *personal accomplishment* (PA). Thus, the MBI-ES captures how teacher-related stress may lead to overly-routinized or detached treatment of students (Byrne, 1994). Emotional exhaustion (EE) has been categorized as "feelings of being overextended and depleted of one's emotional and physical resources" (Halbesleben

& Demerouti, 2005, p. 208). Depersonalization (DP), the second dimension of burnout, reflects a teacher's detached response to either the students or aspects of the job itself. By placing distance between themselves and students, teachers are able to view students as impersonal objects, making job demands feel more manageable (Maslach et al., 2001). The final dimension of burnout, personal accomplishment (PA), refers to teachers feeling competent to perform the functions of the job or their sense of productivity at work.

To measure mindfulness, a subscale from the Interpersonal Mindfulness in Teaching Questionnaire (IMTS) was used (Greenberg et al., 2010) (see Table 2). The IMTS is a 20-item instrument designed to assess how teachers apply mindful awareness to their behavior during teaching interactions with students (for example, "When I'm upset with my students, I notice how I am feeling before I take action"). Respondents were asked to rate each item utilizing a five-point scale where 1 = "never true," and 5 = "always true." Rather than use the entire instrument, the researchers used only the 5-item subscale measuring teacher interpersonal mindfulness that was validated in a study by Frank et al., (2016). This decision was made because it was determined that the subscale was best designed to look at the interaction of stress and mindfulness in teacher behaviors because teacher self-regulation of attention in interaction with students is important to this study.

Analysis

Descriptive analysis was conducted to look at respondent gender, number of years teaching and self-reported stress-induced behaviors. The MBI-ES was developed as a research instrument to assess burnout as a continuum, ranging from low to high, on three different dimensions: Emotional Exhaustion (relying on 9 items), Depersonalization (relying on 5 items), and reduced Personal Accomplishment (relying on 8 reverse-scored items). A subscale mean was calculated on the pre- and post-assessment for each of the three subscales. Consistent with research published in 2016 by MBI-ES authors Michael Leiter and Christina Maslach, we calculated standardized z-scores for the three dimensions to label the Burnout Profiles for the emotional exhaustion, depersonalization, and personal accomplishment subscales and to identify patterns of the burnout experience in response to the CARE program.

The pre-post measure of teacher mindfulness, the IMTS subscale, was compared using a nonparametric alternative to the repeated measures t-test more appropriate for small samples (Wilcoxon signed-rank

test). A more liberal p-value significance level of .10 was used to define pre-post differences given the low power to detect significance in a study of this size. While the researchers acknowledge the significance threshold for a study of this nature is often set to 0.05, the researchers considered the particular risks and rewards associated with the test at hand. The decisions resulting from these results have limited scope (a subset of teachers in a single district). As such, the researchers felt confident that planning with a higher threshold of 0.1 was appropriate for the study. The researchers also reported the effect sizes using Hedge's *g* when findings were statistically significant.

Results and Discussion

The researchers hypothesized that educators who received the 8-week CARE program would show a reduction in reported stress and increased mindfulness. What did we learn about whether CARE could improve teacher's social-emotional skills and improve teachers' ability to develop and maintain a well-managed classroom that provides emotional and instructional support to their students?

Results of Research Question 1

The first research question asked was: is there an effect of participation in a CARE for Teachers' program on scores measuring stress reduction?

Stress

Teacher stress was compared pre and post CARE using the MBI-ES that measures burnout. The researchers used Leiter and Maslach's latent burnout profiles (2016) and standardized (*z*) values to calculate pre and post results of the participants on the emotional exhaustion, depersonalization, and personal accomplishment subscales. All three subscales would need to reflect the standardized *z*-score 'high' threshold in order for the population to be labeled as experiencing burnout. High scores in one or two subscales are labeled with descriptions along the continuum between 'engaged' and 'burnout.' Analysis of pre-assessment subscales found that teachers in the study were experiencing high levels of stress but only ranked at the critical or high level on the personal accomplishment subscale ($M=35.36$, $SD=1.42$), $z=35.5$. Using Leiter and Maslach's burnout profiles, this placed the teachers in this study within the profile labeled 'ineffective'. The ineffective profile is characterized by feelings of inadequacy and failure. This self-perception can become a self-fulfilling prophecy, playing out in feeling inefficient, achieving a lack of desired productivity, or an inability to cope with additive stressors. Post-test results showed a reduction in

the personal accomplishment subscale ($M=37.9$, $SD=1.32$), $z=38.04$ indicating teachers' feeling less stress related to personal accomplishment. With this result, the participants were no longer within the 'ineffective' profile.

While not exhibiting full burnout as measured by MBI-ES, teachers were experiencing elevated feelings of inefficacy, emotional exhaustion, and even limited depersonalization prior to participation in the CARE program. After completion of CARE, teacher responses indicated positive change in the PA subscale and moved them from the critically high level of the PA profile suggesting the development of mindfulness contributed to enhanced feelings of efficacy and enhanced coping skills.

Results of Research Question 2

The second research question asked was: Is there an effect of participation in a CARE for Teachers' program on scores measuring mindfulness?

Mindfulness

Teachers' mindfulness was compared pre and post CARE using the interpersonal subscale of the IMTS. On average, teachers reported improved mindfulness in their interpersonal interactions with students after CARE. A Wilcoxon signed-rank test in the interpersonal mindfulness subscale of the IMTS indicated that the pre-post difference was statistically significant (with the more liberal threshold for significance applied), $z=-1.51$ $p=.065$. This supports that teachers felt an increased level of mindfulness in their interactions with students after their participation in the CARE program. We also looked at the significance of individual items within the subscale to better understand where teacher mindfulness and their behaviors may have changed. Using a paired sample t-test, one item, *"I am aware of how my moods affect the way I treat my students,"* showed statistically significant change from pre-test ($M=3.64$, $SD=0.75$) to post-test ($M=4.27$, $SD=0.65$), $t=2.22$, $p=0.018$ with a large effect ($g=0.88$).

While mindfulness is multidimensional, these findings suggest that the CARE program contributed to teachers' social-emotional development by contributing to their recognition of and self-regulation in stressful interactions with students. Combining these findings with assertions from other literature, this enhanced tendency for mindful observation of one's mood in interaction with others may contribute to more engagement in empathy, acting with greater awareness, and non-judgmental acceptance in interactions with students and result in less social anxiety and less stress for teachers and students.

Limitations and Recommendations for Future Research

While the results of this study are promising, it is useful to recognize a few limitations. First, this case study is limited to one rural school district and cannot be generalized to other school districts. Second, sample sizes should also be increased in order to improve the efficacy of research in the mindfulness arena specifically for K-12 teachers (Jennings, 2015; Jennings et al., 2017; Napoli, 2004).

This study should be replicated to include a larger sample of instructors from different disciplines. Furthermore, given a positive result with the 18-hour CARE training, more research is needed to understand the variance in stress and mindfulness attributes between the 18 hour and 30-hour training. This is important to investigate as more CARE training is completed to help teachers cope during these uncertain times. Data from this study was self-reported and assessed using standardized tools. To avoid bias inherent in self-reported data, future research could add additional measures of interpersonal behavior by including observations of the overall quality of interactions between teachers and students conducted by trained, independent observers in the classroom. This would allow for a more meaningful look at impacts on classroom quality of interactions. Longitudinal studies or adding other measures of stress and mindfulness might also add to the findings of this study. Future research would also be enhanced by examining student outcomes in relation to improvements in teacher and classroom outcomes. Finally, collection of qualitative data from participants could add nuance and rich context for understanding the complexity of teacher stress and the application of mindfulness in classroom interpersonal interactions. Nevertheless, this study is significant in adding to the already existing research of the effects of mindfulness training on educators and specifically the streamlining of the 18-hour CARE versus the 30-hour CARE training program. The study may also lead to further similar research and publications.

Conclusion

A growing body of research suggests that teaching is a highly stressful profession, and teacher stress results in negative impacts on the quality of their classroom learning environment. Despite this evidence, little research has addressed ways to reduce teacher stress. Based on the findings of this study, the researchers offer the following conclusions. First, CARE for Teachers training has been identified to reduce stress and improve mindfulness in teachers.

This proves that there is copious potential for more research in many areas of teacher mindfulness, particularly in K-12 education and the overall health of public-school educators. Given the percentages of teachers leaving the profession, and increased environmental stress, the CARE for teacher training is a useful tool to improve overall well-being that can make both teacher and student more productive. Secondly, this study improved knowledge regarding the effects of CARE for Teachers streamlined 18-hour training, in contrast to the CARE for Teachers'

30-hour training. Results support that increases in adaptive emotion regulation, teaching efficacy, and mindfulness occurred for participants in the 18-hour training. This study should be replicated with a larger sample of educators to learn more about its importance as a tool for professional development.

References

- Baer, R. A. (2003). Mindfulness training as a clinical intervention: A conceptual and empirical review. *Clinical Psychology: Science and Practice*, 10(2), 125-143. <https://doi:10.1093/clipsy/bpg015>
- Baer, R. A., Smith, G. T., & Allen, K. B. (2004). Assessment of mindfulness by self-report: The Kentucky inventory of mindfulness skills. *Assessment*, 11(3), 191-206.
- Baer, R. A., Walsh, E., & Lykins, E. L. (2009). Assessment of mindfulness. In *Clinical handbook of mindfulness* (pp. 153-168). Springer. https://doi:10.1007/978-0-387-09593-6_10
- Borker, D. R. (2013). Mindfulness practices for accounting and business education: A new perspective. *American Journal of Business Education*, 6(5), 495-504. <https://doi:10.19030/ajbe.v6i1.7482>
- Broderick, P. C., & Jennings, P. A. (2012). Mindfulness for adolescents: A promising approach to supporting emotion regulation and preventing risky behavior. *New Directions for Youth Development*, 2012(136), 111-126. <https://doi:10.1002/yd.20042>
- Brown, K. W., & Ryan, R. M. (2003). The benefits of being present: Mindfulness and its role in psychological well-being. *Journal of Personality and Social Psychology*, 84(4), 822-848. <https://doi:10.1037/0022-3514.84.4.822>
- Byrne, N. (1994). Burnout: Testing for the validity replication and invariance of causal structure across elementary, intermediate, and secondary teachers. *American Educational Research Journal*, 31(3), 645-673. <https://doi:10.3102/00028312031003645>
- Carver-Thomas, D. & Darling-Hammond, L. (2017). Teacher turnover: Why it matters and what we can do about it. *Learning Policy Institute*.
- Crain, T. L., Schonert-Reichl, K. A., & 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. <https://doi.org/10.1037/ocp0000043>
- Epstein, R. M. (1999). Mindful practice. *Jama*, 282(9), 833-839. <https://doi:10.1001/jama.282.9.833>
- Flook, L., Goldberg, S. B., Pinger, L., Bonus, K., & Davidson, R. J. (2013). Mindfulness for teachers: A pilot study to assess effects on stress, burnout, and teaching efficacy. *Mind, Brain, and Education*, 7(3), 182-195. <https://doi:10.1111/mbe.12026>
- Frank, J. L., Bose, B., & Schrobrenhauser-Clonan, A. (2014). Effectiveness of a school-based yoga program on adolescent mental health, stress coping strategies, and attitudes toward violence: Findings from a high-risk sample. *Journal of Applied School Psychology*, 30(1), 29-49. <https://doi:10.1080/15377903.2013.863259>

- Frank, J. L., Reibel, D., Broderick, P., Cantrell, T., & Metz, S. (2015). The effectiveness of mindfulness-based stress reduction on educator stress and well-being: Results from a pilot study. *Mindfulness*, 6(2), 208-216. <https://doi.org/10.1007/s12671-013-0246-2>
- Frank, J. L., Jennings, P. A., & Greenberg, M. T. (2016). Validation of the mindfulness in teaching scale. *Mindfulness*, 7(1), 155-163. <https://doi.org/10.1007/s12671-015-0461-0>
- García, E., & Weiss, E. (2019, April 16). *U.S. schools struggle to hire and retain teachers*. Economic Policy Institute. epi.org/164773
- Gewertz, C. (2020, July 21). *Mindfulness for teachers: A program with proof*. <https://www.edweek.org/teaching-learning/mindfulness-for-teachers-a-program-with-proof/2020/07>
- Gold, E., Smith, A., Hopper, I., Herne, D., Tansey, G., & Hulland, C. (2010). Mindfulness-based stress reduction (MBSR) for primary school teachers. *Journal of Child and Family Studies*, 19(2), 184-189. <https://doi.org/10.1007/s10826-009-9344-0>
- Greenberg, M. T., Jennings, P. A., & Goodman, B. (2010). The interpersonal mindfulness in teaching scale. Pennsylvania State University.
- Greenberg, M. T., & Harris, A. R. (2012). Nurturing mindfulness in children and youth: Current state of research. *Child Development Perspectives*, 6(2), 161-166. <https://doi.org/10.1111/j.1750-8606.2011.00215.x>
- Grossman, P., Niemann, L., Schmidt, S., & Walach, H. (2004). Mindfulness-based stress reduction and health benefits: A meta-analysis. *Journal of Psychosomatic Research*, 57(1), 35-43. [https://doi.org/10.1016/s0022-3999\(03\)00573-7](https://doi.org/10.1016/s0022-3999(03)00573-7)
- Halbesleben, J. R., & Demerouti, E. (2005). The construct validity of an alternative measure of burnout: Investigating the English translation of the Oldenburg Burnout Inventory. *Work & Stress*, 19(3), 208-220. <https://doi.org/10.1080/02678370500340728>
- Hooker, K. E., & Fodor, I. E. (2008). Teaching mindfulness to children. *Gestalt Review*, 12(1), 75-91. <https://doi.org/10.5325/gestaltreview.12.1.0075>
- Huppert, F. A., & Johnson, D. M. (2010). A controlled trial of mindfulness training in schools: The importance of practice for an impact on well-being. *The Journal of Positive Psychology*, 5(4), 264-274. <https://doi.org/10.1080/17439761003794148>
- Jennings, P. A. (2015). *Mindfulness for teachers: Simple skills for peace and productivity in the classroom*. W.W. Norton & Company.
- Jennings, P. A., Brown, J. L., Frank, J. L., Doyle, S., Oh, Y., Davis, R.,...Greenberg, M. T. (2017). Impacts of the CARE for teachers program on teachers' social and emotional competence and classroom interactions. *Journal of Educational Psychology*, 109(7), 1010-1028. <https://doi.org/10.1037/edu0000187>
- 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. <https://doi.org/10.1037/spq0000035>
- Jennings, P. A., & Greenberg, M. T. (2009). The prosocial classroom: Teacher social and emotional competence in relation to student and classroom outcomes. *Review of Educational Research*, 79(1), 491-525. <https://doi.org/10.3102/0034654308325693>

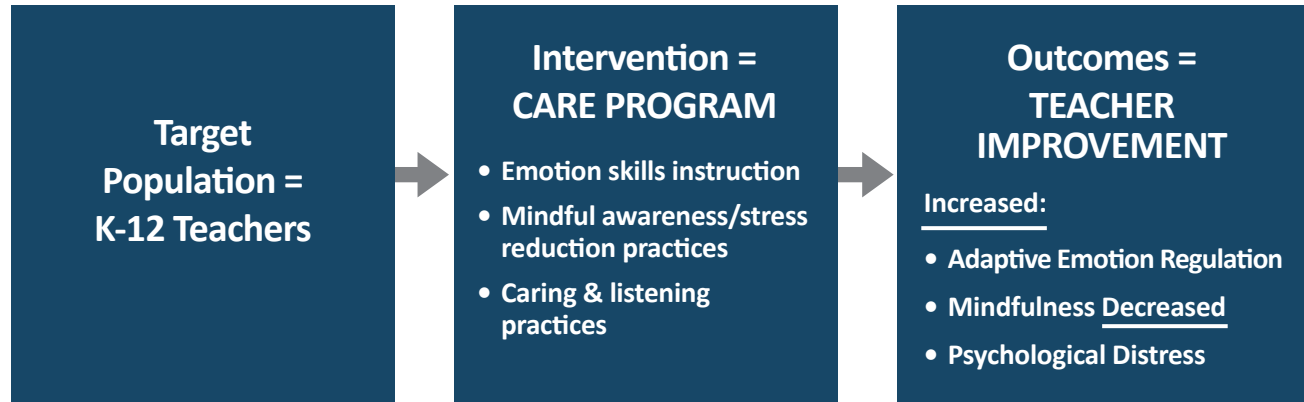
- Jennings, S. J., & Jennings, J. L. (2013). Peer-directed, brief mindfulness training with adolescents: A pilot study. *International Journal of Behavioral Consultation and Therapy*, 8(2), 23-25. <https://doi:10.1037/h0100972>
- Jennings, P. A., Snowberg, K. E., Coccia, M. A., & Greenberg, M. T. (2011). Improving classroom learning environments by cultivating awareness and resilience in education (CARE): Results of two pilot studies. *The Journal of Classroom Interaction*, 37-48.
- Kabat-Zinn, J. (2003). Mindfulness-based interventions in context: Past, present, and future. *Clinical Psychology: Science and Practice*, 10(2), 144-156. <https://doi:10.1093/clipsy/bpg016>
- Lampe, M., & Engleman-Lampe, C. (2012). Mindfulness-based business ethics education. *Academy of Educational Leadership Journal*, 16(3), 99-111. <https://search.proquest.com/docview/1037691837?accountid=13158>
- Langer, E. J., & Moldoveanu, M. (2000). The construct of mindfulness. *Journal of Social Issues*, 56(1), 1-9.
- Leiter, M. P., & Maslach, C. (2016). Latent burnout profiles: A new approach to understanding the burnout experience. *Burnout Research*, 3(4), 89-100. <https://doi:10.1016/j.burn.2016.09.001>
- Mapel, T. (2012). Mindfulness and education: Students' experience of learning mindfulness in a tertiary classroom. *New Zealand Journal of Educational Studies*, 47(1), 19-32. <https://search-proquest-com.ezaccess.libraries.psu.edu/docview/1237822880?accountid=13158>
- Marzano, R. J., Marzano, J. S., & Pickering, D. J. (2003). *Classroom management that works*. Association for Supervision and Curriculum Development.
- Maslach, C., Schaufeli, W. B., & Leiter, M. P. (2001). Job burnout. *Annual Review of Psychology*, 52(1), 397-422. <https://doi:10.1146/annurev.psych.52.1.397>
- Meiklejohn, J., Phillips, C., Freedman, M. L., Griffin, M. L., Biegel, G., Roach, A.,...Saltzman, A. (2012). Integrating mindfulness training into K-12 education: Fostering the resilience of teachers and students. *Mindfulness*, 3(4), 291-307 <https://doi:10.1007/s12671-012-0094-5>
- Napoli, M. (2004). Mindfulness training for teachers: A pilot program. *Complementary Health Practice Review*, 9(1), 31-42. <https://doi:10.1177/1076167503253435>
- Osher, D., Sprague, J., Weissberg, R. P., Axelrod, J., Keenan, S., Kendziora, K., & Zins, J. E. (2008). A comprehensive approach to promoting social, emotional, and academic growth in contemporary schools. *Best Practices in School Psychology*, (5)4, 1263-1278.
- Pickert, K. (2014, January). The mindful revolution. *TIME magazine*, 3(1), 34-48.
- Rechtschaffen, D. (2014). *The way of mindful education: Cultivating well-being in teachers and students*. W.W. Norton & Company.
- Roeser, R. W., Schonert-Reichl, K. A., Jha, A., Cullen, M., Wallace, L., Wilensky, R.,... Harrison, J. (2013). Mindfulness training and reductions in teacher stress and burnout: Results from two randomized, waitlist-control field trials. *Journal of Educational Psychology*, 105(3), 787-804. <https://doi:10.1037/a0032093>
- Sanders, K. M. (2010). Mindfulness and psychotherapy. *Focus*, 8(1), 19-24. <https://doi:10.1176/foc.8.1.foc19>
- Shapiro, S. L. (2009). The integration of mindfulness and psychology. *Journal of Clinical Psychology*, 65(6), 555-560.

- Skaalvik, E. M., & Skaalvik, S. (2016). Teacher stress and teacher self-efficacy as predictors of engagement, emotional exhaustion, and motivation to leave the teaching profession. *Creative Education*, 7(13), 1785-1799. <https://doi:10.4236/ce.2016.713182>
- Skaalvik, E.M. & Skaalvik, S. (2017). Teacher stress and teacher self-efficacy: Relations and consequences. In T. McIntyre, S. McIntyre & D. Francis (Eds.), *Educator Stress* (pp. 101-125). Springer. https://doi:10.1007/978-3-319-53053-6_5
- Sutcher, L., Darling-Hammond, L., & Carver-Thomas, D. (2016, September 18). A coming crisis in teaching? Teacher supply, demand, and shortages in the U.S. *Learning Policy Institute*. <https://learningpolicyinstitute.org/product/coming-crisis-teaching>
- Tsouloupas, C. N., Carson, R. L., Matthews, R., Grawitch, M. J., & Barber, L. K. (2010). Exploring the association between teachers' perceived student misbehaviour and emotional exhaustion: The importance of teacher efficacy beliefs and emotion regulation. *Educational Psychology*, 30(2), 173-189. <https://doi:10.1080/01443410903494460>

Appendix

Figure 1

CARE for Teachers Logic Model



Note. Adapted from “Improving Classroom Learning Environments by Cultivating Awareness and Resilience in Education (CARE): Results of a Randomized Controlled Trial,” by Jennings, P. A., Frank, J. L., Snowberg, K. E., Coccia, M. A., & Greenberg, M. T., 2013, *School Psychology Quarterly*, 28(4), 378. <https://doi:10.1037/spq0000035>. Copyright 2013 by American Psychological Association.

Table 1

CARE Program Components			
Variables Instruction	Emotion Skills Practices	Mindfulness/Stress Reduction Practices	Compassion
Time	Approximately 40%	Approximately 40%	Approximately 20%
	<ol style="list-style-type: none"> 1. Introduction to emotions, purpose, universal expressions, relevant brain research 2. How emotions affect teaching and learning 3. Didactic information about “uncomfortable” or negative emotions (anger, fear, sadness) including physiology, cognitive and behavioral responses 4. Didactic information about “comfortable” or positive emotions (joy and appreciation) including physiology, cognitive and behavioral responses 5. Exploring bodily awareness of emotions 6. Exploring individual differences in emotional experiences (emotional profile, triggers, and scripts) 7. Practice using mindful awareness and reflection to recognize and manage strong emotions 	<ol style="list-style-type: none"> 1. Body awareness reflection 2. Basic breath awareness practice 3. Mindfulness of thoughts and emotion practice 4. Mindful movement practices (standing, walking, stretching, and centering) 5. Practice maintaining mindful awareness in front of a group 6. Role plays to practice mindfulness in the context of a strong emotion related to a challenging classroom situation 	<ol style="list-style-type: none"> 1. Caring practice is a series of guided reflections focused on caring for self, loved one, colleague, and challenging person 2. Mindful listening partner practices, one person reads a poem or talks about a problem, partner listens mindfully practicing presence and acceptance

Note. Adapted from “Improving Classroom Learning Environments by Cultivating Awareness and Resilience in Education (CARE): Results of a Randomized Controlled Trial,” by Jennings, P. A., Frank, J. L., Snowberg, K. E., Coccia, M. A., & Greenberg, M. T., 2013, *School Psychology Quarterly*, 28(4), 379. <https://doi.org/10.1037/spq0000035>. Copyright 2013 by American Psychological Association.

Table 2

Interpersonal Mindfulness in Teaching Scale (IMTS)					
1	2	3	4	5	-98
Never True	Rarely True	Sometimes True	Often True	Always True	Prefer Not to Respond

Instructions: The following statements describe different ways that teachers interact with their students on a daily basis. Please tell me whether you think the statement is “Never True,” “Rarely True,” “Sometimes True,” “Often True,” or “Always True” for you. Remember, there are no right or wrong answers and please answer according to what really reflects your experience rather than what you think your experience should be. Please treat each statement separately from every other statement. Remember, when deciding on an answer, your first instinct is usually correct.

1. When I’m upset with my students, I notice how I am feeling before I take action.
2. I listen carefully to my students’ ideas, even when I disagree with them.
3. I am aware of how my moods affect the way I treat my students.
4. Even when it makes me uncomfortable, I allow my students to express their feelings.
5. When I am upset with my class, I calmly tell them how I am feeling.

Table 3

Maslach Burnout Inventory: Educators Survey (MBI)							
1	2	3	4	5	6	7	-98
Never	A Few times a year or less	Once a month or less	A Few times a month	Once a week	A Few times a week	Every Day	Prefer not to respond

Instructions: Below are 22 statements of job-related feelings. Please read each statement carefully and decide if you ever feel this way about your job. Remember, your first answer is usually the best one.

1. I feel emotionally drained from my work.
2. I feel used up at the end of the work day.
3. I feel fatigued when I get up in the morning and have to face another day on the job.
4. I can easily understand how my students feel about things.
5. I feel I treat some students as if they were impersonal objects.
6. Working with people all day is really a strain for me.
7. I deal very effectively with the problems of my students
8. I feel burned out from my work.
9. I feel I'm positively influencing other people's lives through my work
10. I've become more callous toward people since I took this job.
11. I worry that this job is hardening me emotionally.
12. I feel very energetic.
13. I feel frustrated by my job.
14. I feel I'm working too hard on my job.
15. I don't really care what happens to some students.
16. Working with people directly puts too much stress on me.
17. I can easily create a relaxed atmosphere with my students.
18. I feel exhilarated after working closely with my students.
19. I have accomplished many worthwhile things in this job.
20. I feel like I'm at the end of my rope.
21. In my work, I deal with emotional problems very calmly.
22. I feel students blame me for some their problems.