

# Improving Classroom Learning Environments by Cultivating Awareness and Resilience in Education (CARE): Results of Two Pilot Studies

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## ABSTRACT

Cultivating Awareness and Resilience in Education (CARE) is a professional development program designed to reduce stress and improve teachers' performance. Two pilot studies examined program feasibility and attractiveness and preliminary evidence of efficacy. Study 1 involved educators from a high-poverty urban setting ( $n = 31$ ). Study 2 involved student teachers and 10 of their mentors working in a suburban/semi-rural setting ( $n = 43$ ) (treatment and control groups). While urban educators showed significant pre-post improvements in mindfulness and time urgency, the other sample did not, suggesting that CARE may be more efficacious in supporting teachers working in high-risk settings.

## INTRODUCTION

Teacher quality has become a top priority of our national policy agenda to improve student academic achievement (Wilson et al., 2008). Additionally, there is strong public support for a broad educational agenda that includes enhancing academic achievement *and* students' social-emotional competence, character and civic engagement (Public Agenda, 1994, 1997, 2002; Metlife, 2002; Rose & Gallup, 2000). Although there is some evidence that teachers' social-emotional skills and well-being are characteristics of quality teachers capable of fulfilling this broad agenda (Jennings & Greenberg, 2009), little research has explored this question. The purpose of the present study was to examine whether a professional development intervention can improve social-emotional skills and well-being and consequently improve teachers' ability to develop and maintain a well-managed learning environment and provide optimal emotional and instructional support to their students.

One model that advances understanding of links between teachers' social and emotional competence (SEC) and well-being and classroom and student outcomes is Jennings and Greenberg's (2009) Prosocial Classroom theoretical model (see Figure 1). In this model, the link between SEC and student outcomes is mediated by teacher-student relationships, classroom management, and social and emotional learning (SEL) program implementation. To successfully address the management, instructional, and emotional challenges of the classroom, teachers must employ a high degree of social and emotional competence. When teachers lack this personal resource, classroom management can suffer, resulting in lower levels of on-task student behavior and performance (Marzano, Marzano & Pickering, 2003). As the classroom climate deteriorates, the demands on the teacher increase, triggering in the teacher what has been referred to as a "burnout cascade" (Jennings & Greenberg, 2009, p. 492). Under these conditions, teachers' responses to student behavior may become hostile and punitive, reactions that may derail student motivation and contribute to a self-sustaining cycle of classroom disruption. Over time, high levels of distress may lead to burnout (Tsouloupas, Carson, Matthews, Grawitch, & Barber, 2010) and a downward spiral of deteriorating teacher performance and student behavior and achievement (Osher et al., 2007). In contrast, teachers who regularly experience more positive emotions in their work lives may be more resilient (Cohn, Brown, Fredrickson, Milkels, & Conway, 2009; Gu & Day, 2007) in response to these stressors and more able to create and maintain supportive learning environments. This evidence supports the need for specialized professional development that promotes teachers' SEC and well-being in the service of maximizing their capacity to create and maintain optimal classroom organization and to provide instructional and emotional support to their students.

Figure 1

## The Prosocial Classroom Model

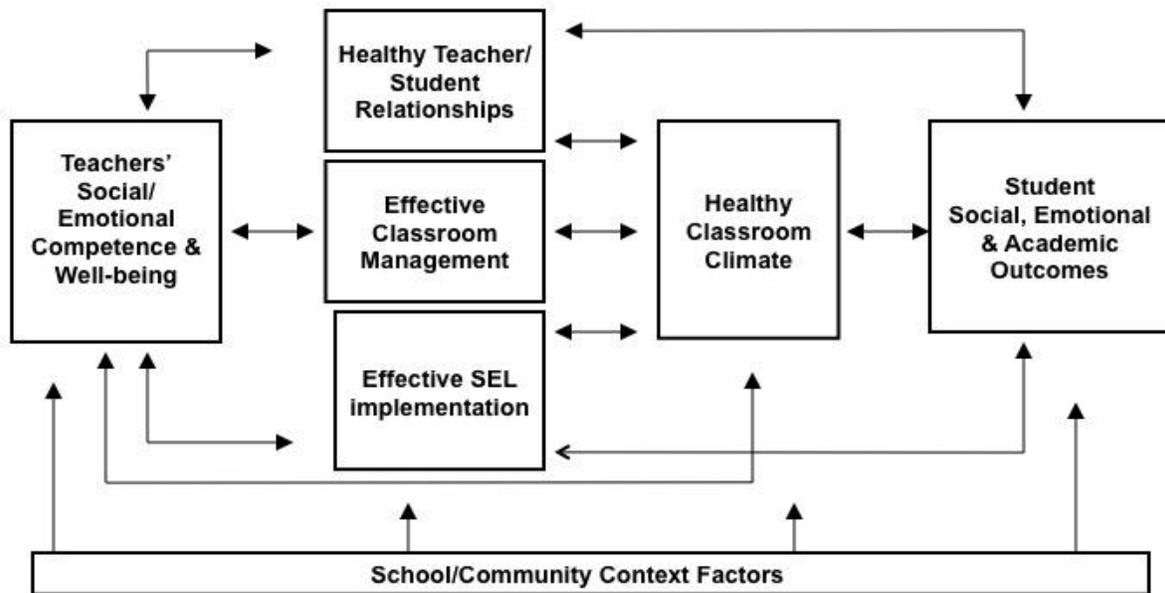


Figure 1. A Model of Teacher Well Being and Social and Emotional Competence, Support and Classroom and Student Outcomes

From: 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, 491-525. Reprinted with permission from SAGE Publications, Inc.

### THE CARE PROGRAM MODEL

The Cultivating Awareness and Resilience in Education (CARE) professional development program was produced by a team of educators and researchers at the Garrison Institute. CARE was designed to reduce teachers’ distress and promote improvements in teachers’ well-being, motivational orientation/efficacy, and mindfulness. Qualitative data suggests that the program results in such improvements that may also contribute to teachers’ abilities to provide organizational, instructional, and emotional support to their students (Jennings, 2011). The CARE program includes three primary content areas described below that are presented in a series of four day-long sessions presented over four to five weeks.

#### Emotion skills instruction

Because emotional exhaustion is a major contributor to teacher burnout and often interferes with teachers’ functioning, CARE introduces emotional skills instruction drawn

from the neuroscience of emotion. This involves 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 “emotional landscape”—habitual emotional patterns. They also practice self-induction of positive emotions (Cohn et al., 2009) to promote resilience and help reappraise emotionally provocative situations. CARE aims to support teachers to be more sensitive to students’ needs, more aware of classroom emotional climate and better able to regulate their emotions while managing provocative behavior.

#### Mindfulness/stress reduction practices

Mindfulness-based interventions (MBIs) are effective in reducing both stress and illness (Gross, 2009) as well as improving psychological functioning (Weinstein, Brown, & Ryan, 2009). Mindful awareness practices focus on a “nonelaborative, nonjudgmental, present-centered awareness in which each thought, feeling, or sensation that arises in the attentional field is acknowledged and accepted as it

is” (Bishop et al., 2004, p.232). Mindfulness involves two primary components: *self-regulation of attention* and *non-judgmental awareness*. Self-regulation of attention allows for metacognitive awareness of one’s emotional and cognitive experience as it occurs. This meta-awareness combined with a non-judgmental awareness characterized by curiosity, openness, and acceptance supports emotional and cognitive self-awareness and self-regulation. Indeed, mindfulness enhances regulatory processes that buffer against psychological distress (Jimenez, Niles, & Park, 2010). As MBIs promote flexibility (Kashdan & Rottenberg, 2010) and self-reflection, they may be well suited for helping teachers overcome the tendency to make automatic, reactive appraisals of student behavior that contribute to emotional exhaustion (Chang, 2009). Thus, developing greater mindful awareness may support both effective classroom management and caring.

CARE introduces a series of mindfulness activities, beginning with short periods of silent reflection and extending to activities that bring mindfulness into aspects of daily living such as standing, walking, being present in front of a group, listening to others, etc. Through these activities, teachers learn to bring greater awareness to their classroom organization and their relationships with students, parents and colleagues.

### *Caring and listening practices*

To promote empathy and compassion, CARE introduces “caring practice” and “mindful listening.” Caring practice involves silent reflection focused on generating feelings of care for oneself and others by mentally offering well-being, happiness, and peace—first to oneself, then to a loved one, then to a neutral colleague or acquaintance, and finally to a person who one finds challenging, such as a difficult student, parent, or colleague. Practiced over time, this activity produces increases in daily experiences of positive emotions and decreased illness and depressive symptoms (Fredrickson, Coffey, Pek, Cohn, & Finkel, 2008). Mindful listening exercises develop the skill to simply listen to another and notice (without acting upon) emotional reactions such as urges to interrupt, offer advice, or judge. These exercises help teachers more effectively listen to students and to be more sensitive to their needs, especially during conflict in which a calm, supportive presence can support conflict resolution.

### *The Present Study*

This paper presents data collected during the first year of a two-year intervention development project presenting CARE as an in-service professional development program for working teachers. The program was piloted with two samples of very different participants: teachers working in a high-poverty urban setting (Study 1) and student teachers

and some of their mentors working in a semi-rural/suburban college town setting (Study 2). We hypothesized that educators who received the CARE program would show increases in measures of well-being, motivational orientation/efficacy, and mindfulness. Among those enrolled in Study 2, we hypothesized that classrooms would show improvements in classroom organization, instructional support, and emotional support compared to control teachers’ classrooms.

## METHODS

### STUDY 1

#### *Participants*

CARE was presented to two cohorts of educators working in an urban region of the northeast who were recruited from four low performing elementary schools in high poverty neighborhoods (85% economically disadvantaged, 95% minority). Cohort A ( $n = 15$ ) consisted of seven regular classroom teachers, six specialists (learning support, special education, preschool supervisor, vocational high school teacher), one counselor, and one psychologist who received CARE in the fall of 2009. Cohort B ( $n = 16$ ) consisted of seven regular classroom teachers and nine specialists who received CARE in the spring of 2010. Cohort B participants included two men, while Cohort A was composed of all women. The primarily European American sample included two African Americans and one Asian American. Participants had a mean age of 40 years ( $SD = 11.8$ ). A majority ( $n = 30$ ) had bachelor’s degrees, 14 had graduate degrees, and their years of experience ranged from 1 to 37 years ( $M = 13.23$ ,  $SD = 10.23$ ).

#### *Procedures*

After teachers were recruited and consent was obtained, they completed a battery of questionnaires prior to and after the CARE program to assess changes in well-being, motivational orientation/efficacy, and mindfulness. At post-test, participants completed an additional questionnaire and participated in a focus group to assess the teachers’ perceptions of program satisfaction, feasibility, and effectiveness. CARE was presented to both cohorts by two of the program’s developers. Cohort A ( $n = 15$ ) received CARE in the fall of 2009 presented in the form of two weekends separated by one month during which participants received phone coaching from program facilitators to help them practice the skills they learned the first weekend and to apply these skills to classroom challenges. The structure for the Cohort B program format was modified in response to feedback from the Cohort A focus groups. Cohort A participants reported that they felt the two weekends were spaced too far apart and

they wanted more frequent contact with facilitators. Therefore, Cohort B's schedule was modified as follows: two-day weekend workshop, two-week intersession with phone coaching, one-day workshop, two-week intersession with phone coaching, one-day workshop. One participant from each cohort dropped out of the program after the first weekend. During each program, each remaining participant was assigned to one facilitator who provided the phone coaching for 20 to 30 minutes over the phone approximately two times over the course of the program.

Within a few weeks after each CARE program ended, the participants attended focus groups (six to eight per group) led by neutral university research staff blind to the study aims. They were asked questions about their impressions of the program, if and how their levels of emotional and physical awareness had changed as a result of their attendance, and how this change of awareness may translate to different behavior, changes in relationships with students and adults, changes in ways they manage their classrooms, and changes in their work-related stress levels.<sup>1</sup> Focus groups were audio recorded and transcribed.

### Measures

A battery of self-report measures was used to assess program impact on teachers' well-being, motivational orientation/efficacy, and mindfulness. Cronbach's alphas indicated acceptable internal reliability for most measures (.70 or above).

**Measures of well-being.** Six dimensions of well-being were measured using four different instruments.

*Positive and Negative Affect Schedule (PANAS).* The PANAS (Watson, Clark, & Tellegen, 1988) assesses two dimensions of affect. Multiple time frame stems have been used with the PANAS. Our participants were asked to rate how they "felt during the past few weeks" on 20 emotions (such as "hostile" and "enthusiastic") using a five-point Likert-type scale (1 = "very little or not at all," 5 = "extremely"). The mean ratings for the 10 items belonging to the positive and negative subscales were computed. Each subscale score ranged from 1 to 5 and higher scores reflect more positive/negative affect.

*The Center for Epidemiologic Studies Depression Scale (CES-D).* The CES-D (Radloff, 1977) is a well-validated, reliable measure of depressive symptoms. Participants are asked to consider their depressive symptoms over the past week and then rank the frequency of these feelings using a Likert-type scale where 0 = "rarely (less than one day)" to 3 = "most of the time (five to seven days)." The 20-item scale includes items such as "I felt that everything I did was an effort," and "I felt lonely." After reverse scoring the ap-

propriate items, scores are summed and higher scores reflect greater depressive symptoms.

*The Time Urgency Scale (TUS).* The TUS (Landy, Rastegary, Thayer, & Colvin, 1991) is a well-validated measure developed to assess a multidimensional construct of time pressure. The scale is composed of 33 items: 24 are part of five subscales to measure *speech patterns* (five items such as "I talk more rapidly than most people"), *eating behavior* (five items such as "I eat rapidly, even when there is plenty of time"), *competitiveness* (six items such as "I go 'all out'"), *task-related hurry* (three items such as "I often feel very pressed for time"), and *general hurry* (five items such as "I usually work fast"). The remaining nine items can be included in the mean to create a total scale score. Participants are asked to respond to 33 statements that describe their behavior with respect to time usage using a Likert-like scale where 1 = "strongly disagree" and 5 = "strongly agree."

*The Daily Physical Symptoms (DPS).* The DPS (Larsen & Kasimatis, 1997) questionnaire is a physical symptom checklist containing 27 items. Participants were asked about whether or not they experienced each particular symptom "today" and if so, to rate the severity on a 1 to 10 scale, 1 being very mild to 10 being very severe. Symptoms included pain such as headache and backache, gastrointestinal problems such as nausea and diarrhea, cold and flu symptoms such as cough and sore throat, and other symptoms such as eye-related and ear-related symptoms. One score was constructed by calculating the sum of the items.

**Measures of motivational orientation and teaching efficacy.** Four facets of motivation and efficacy were assessed with two different measures.

*Problems in Schools Questionnaire (PIS).* The PIS (Deci, Schwartz, Sheinman, & Ryan, 1981) is based on Ryan and Deci's (2000) self-determination theory, and assesses whether teachers are oriented toward controlling their students' behavior versus supporting their autonomy as it relates to promoting intrinsic motivation. The measure is composed of eight vignettes, followed by four items representing four possible behavioral approaches to the problem that is posed in the vignette: highly autonomy supportive (HA), moderately autonomy supportive (MA), moderately controlling (MC), and highly controlling (HC). A composite weighted score represents general autonomous supportive versus controlling orientation (Reeve, Bolt, & Cai, 1999). Respondents are asked to rate the degree of appropriateness of each of the four options on a seven-point Likert-like scale where 1 = "very inappropriate" and 7 = "very appropriate" for each of the eight situations resulting in a total of 32 ratings.

*Teachers' Sense of Efficacy Questionnaire (TSES).* The TSES (Tschannen-Moran & Woolfolk Hoy, 2001) is a 24-item measure of three components of teaching efficacy: ef-

<sup>1</sup>List of questions available upon request to first author.

**TABLE 1**

*Study 1 Pre-Post Comparisons from Urban Cohorts A and B Self-Report Measures*

	$\alpha$	$M$ -pre	$SD$ -pre	$M$ -post	$SD$ -post	$d$	$p$
<b>Well-being</b>							
PANAS Positive Affect	.91	3.40	.78	3.56	.58	.21	.38
PANAS Negative Affect	.85	1.95	.62	1.81	.66	.23	.24
CES Depressive Symptoms	.89	10.89	7.36	9.12	8.21	.24	.27
TUS Task-Related Hurry	.87	3.71	1.00	3.47	.91	.24	.01
TUS General Hurry	.53	3.50	.56	3.35	.63	.27	.08
Daily Physical Symptoms	--	25.26	30.18	28.28	31.26	.10	.66
<b>Motivation/Efficacy</b>							
PIS Motivating Score	--	1.74	2.61	1.77	3.83	.01	.85
TSES Student Engagement	.86	6.66	1.12	6.85	1.16	.17	.67
TSES Instructional Practices	.91	7.15	1.18	7.60	.84	.38	.11
TSES Classroom Management	.90	7.06	1.22	7.44	.98	.31	.33
<b>Mindfulness</b>							
FFMQ Observing	.79	2.95	.67	3.58	.54	.94	.00
FFMQ Describing	.89	3.46	.77	3.71	.69	.32	.00
FFMQ Awareness	.91	3.31	.78	3.47	.70	.21	.10
FFMQ Non-Judging	.96	3.55	.98	3.93	.71	.39	.06
FFMQ Non-Reactivity	.83	2.83	.68	3.36	.50	.78	.00
Interpersonal Mindfulness	.83	3.51	.46	3.73	.30	.48	.02

*efficacy for instructional strategies* (“how much can you use a variety of assessment strategies?”), *efficacy for classroom management* (“How well can you keep a few problem students from ruining an entire lesson?”) and *efficacy for student engagement* (“How much can you do to foster student creativity?”). For each item, the respondent was asked to rate the extent to which he or she can demonstrate a particular capability utilizing a nine-point Likert-type scale where

1 = “nothing” and 9 = “a great deal.” Three scale scores were produced from the items, and a composite score of all the items was also obtained.

**Measures of mindfulness.** Six dimensions of mindfulness were assessed: five within one instrument and the sixth in a second instrument.

*The Five Facet Mindfulness Questionnaire (FFMQ).* The FFMQ (Baer, Smith, Hopkins, Krietemeyer, & Toney,

2006) is a 39-item instrument based on a factor analytic study of five independently developed mindfulness measures: observing, describing, acting with awareness, and non-judging and non-reactivity to inner experience. Subjects were asked to indicate how true 39 statements are for them using a five-point Likert-type scale, ranging from 1 = “never or very rarely true” to 5 = “very often or always true.” These items form five subscales: *observing* (eight items such as “I pay attention to how my emotions affect my thoughts and behavior”), *describing* (eight items such as “Even when I’m feeling terribly upset, I can find a way to put it into words”), *acting with awareness* (eight items, all reverse scored, such as “It seems I am ‘running on automatic’ without much awareness of what I’m doing”), *non-judgmental* (eight items, all reverse scored, such as “I criticize myself for having irrational or inappropriate emotions”) and *non-reactive* (seven items such as “I perceive my feelings and emotions without having to react to them”).

*The Interpersonal Mindfulness in Teaching Questionnaire (IMT)*. The IMT (Greenberg, Jennings & Goodman, 2010) is a 20-item measure designed to assess how teachers apply mindful awareness to their behavior and emotions while teaching and during interactions with students (for example, “When I’m upset with my students, I notice how I am feeling before I take action”). Respondents are asked to rate each item utilizing a five-point Likert-like scale where 1 = “never true,” and 5 = “always true.” The mean of the item scores was used as a total scale score.

## ANALYSES AND RESULTS

Pre-post questionnaire data was compared using a non-parametric alternative to the repeated measures t-test appropriate for small samples (Wilcoxon signed-rank test). A more liberal significance level of  $p < .10$  was used to define pre-post differences given the low power to detect significance. We also report the effect sizes as Cohen’s  $d$  (see Table 1). We performed analyses of change for each cohort and found that they each supported the total sample results.

**Well-being, motivation/efficacy and mindfulness.** For measures of well-being, two factors on the Time Urgency Scale showed significant change: task-related hurry ( $d = .24$ ) and general hurry ( $d = .27$ ). No significant effects were found on positive and negative affect (PANAS), depressive symptoms (CES-D), or the Daily Physical Symptoms Inventory (DPS), although all scores except DPS changed in the expected direction. For the motivational orientation and teaching efficacy measures, no significant effects were found for either the Problems in Schools Questionnaire (PIS) or the Teachers’ Sense of Efficacy (TSES) (student engagement, instructional practices, or classroom management subscales),

however all scores changed in the expected direction. The strongest effects were found for measures of mindfulness. Results suggest substantial ( $p < .10$ ) improvement at post-test for the five facets of the Five Facet Mindfulness Questionnaire ranging in effect size from  $d = .21$  to  $.94$  (see Table 1). Interpersonal Mindfulness in Teaching (IMT) improved at post-test with an effect size of  $d = .48$ .

**Program Satisfaction.** Overall, CARE was well received by the participants. A large majority (93%) reported that they “strongly agreed” or “agreed” that this type of program should be integrated into preparation and in-service training for all teachers. Teachers reported that CARE improved their self-awareness (97%,  $n = 28$ ) and well-being (93%,  $n = 27$ ). They also “strongly agreed” or “agreed” that as a result of CARE they are “better able to manage classroom behaviors effectively and compassionately” (83%,  $n = 24$ ) and are “better able to establish and maintain supportive relationships” with the children they teach (79%,  $n = 23$ ). Finally, as a result of the CARE program, participants noticed improvements in their students’ (“much better” or “better”) prosocial behavior (74%,  $n = 20$ ), on-task behavior (74%,  $n = 20$ ), and academic performance (65%,  $n = 17$ ).

**Focus Group Findings.** Focus group conversations revealed that participants were not only overwhelmingly satisfied with their experience in the CARE program but had adopted new habits such as noticing anxiety and stopping to take some deep breaths, choosing to prioritize self-care and cultivating greater caring and empathy for others. Participants reported that CARE was helpful in increasing their emotional awareness and acceptance of their emotional states, helpful in lessening their distress levels in general and that the skills learned in the program helped them recognize and regulate emotions related to managing challenging student behaviors. Many reported improvements in the relationships with their students, co-workers, and families as a result of applying CARE techniques. Participants reported new awareness of their emotional triggers both in school and in their personal lives, and many reported being more mindful of slowing down and being newly able to respond appropriately to challenging situations rather than automatically reacting out of strong emotions. Several reported feeling calmer at work and choosing to verbalize their emotional states with their students, leading to greater understanding between teachers and students and faster resolution of disruptive or conflict situations.

## STUDY 2

### Participants

Student teachers were recruited to participate along with their mentor teachers. Eleven student teacher/mentor pairs plus 21 individual student teachers were enrolled. One

mentor and three students dropped out of the study leaving 39 individuals with complete data and 29 classrooms total. Schools were located in primarily upper- and/or middle-class suburban or semi-rural neighborhoods (16% economically disadvantaged, 12% minority). The sample was primarily European American and nearly entirely female; one student teacher was male. Student teachers had a mean age of 21 years ( $SD = .5$ ); mentor teachers had a mean age of 43 years ( $SD = 12$ ). Mentor teachers were highly educated: five had completed a graduate degree, five had some graduate training and one had a bachelor's degree only. Years of experience ranged from four to 38 years ( $M = 16.7$ ,  $SD = 11.8$ ).

### Procedures

After obtaining consent, all participants completed the same online questionnaire used in Study 1, and their classrooms were observed and coded. Immediately after the baseline assessments, the 32 classrooms were randomly assigned for the associated student teacher or student teacher/mentor pair to receive CARE in the winter of 2009 or in the late spring of 2010 (waitlist control). Stratification was employed to ensure a balance of student teacher/mentor pairs and suburban and semi-rural classrooms in both groups. At the pre-test period, two groups were created from 43 subjects: a treatment group consisting of 16 students and five mentors and a control group consisting of 16 students and six mentors. At the post-test period, after four subjects (three students and one mentor) dropped, 39 remaining subjects comprised a treatment group consisting of 13 students and four mentors and a control group consisting of 16 students and six mentors. The CARE program was presented to the treatment group by the same two program developers as in Study 1 (utilizing the original two-weekend format as it had not yet been revised) during January and February 2010. Due to a heavy snowstorm, the third day of the program was cancelled; the missed material was condensed and covered on the final day. At post-test, participants completed the same battery of online measures and an additional questionnaire on program satisfaction. Separate focus groups were then held for students and for mentor teachers. These focus groups were led by the same team of individuals and followed the same protocol as in Study 1. At post-intervention, treatment group and control group classrooms were observed again one time during the morning work period and coded by researchers who were blind to the study participants' assignments.

### Measures

**Self-report.** Teacher well-being, motivation/efficacy, and mindfulness were assessed by the same questionnaires and protocol utilized in Study 1. At the end of the program,

participants also completed the same program satisfaction questionnaire.

**Observations.** Each classroom was observed and rated pre- and post-intervention using the CLASS (Pianta, La Paro, & Hamre, 2003), a well-validated measure of classroom climate. The CLASS rating system consists of 10 items that form three factors: (a) Organization; (b) Instructional Support; and (c) Emotional Support. Each item is rated on a scale from 1 to 7 (low to high quality). Before the classroom observations began, research staff attended a three-day training workshop in the CLASS led by a certified CLASS instructor and were subsequently tested and certified reliable. Classrooms were each observed once during each assessment period, and 20% of the observations were double-coded to ensure inter-rater reliability. 80% reliability was maintained throughout each observation period.

### Analyses and Results

**Well-being, motivation/efficacy, mindfulness.** Comparisons between the CARE treatment group and control group were made at the post-test period using covariance adjusted estimates. Each self-report measure was adjusted for its baseline measurement at the pre-test period. Least-square mean comparisons were then made to test for a treatment effect. As a descriptive comparison to Study 1, repeated-measures t-test analyses were performed on the CARE treatment group only to test for changes between pre-post assessment periods. CARE teachers showed a mild non-significant reduction in negative affect ( $p = .17$ ) compared with the control group. The results of the ANCOVA model suggested significant treatment effect on Problems in Schools (PIS) motivating total score ( $p < .05$ ) where CARE teachers showed more autonomy supportive orientation at post-test compared to the controls (see Table 2). The results of the non-experimental analysis involving simple pre-post differences confirmed the increase in teachers' PIS motivating score and also the increases in the instructional practices of the Teacher's Sense of Self-Efficacy scale and the observing factor of the Five Facet Mindfulness scale.

**Program satisfaction.** Of the participants who completed the program satisfaction survey ( $n = 16$ ), 88% ( $n = 14$ ) reported that they "strongly agreed" or "agreed" that this type of program should be integrated into preparation and in-service training for all teachers. A majority of participants reported that CARE improved their self-awareness (81%,  $n = 13$ ) and their ability to establish and maintain supportive relationships with the children they work with (69%,  $n = 11$ ). 81% ( $n = 13$ ) of these participants reported being "satisfied" or "highly satisfied" with the CARE program content, while 75% ( $n = 12$ ) reported being "satisfied" or "highly satisfied" with the program in general.

TABLE 2

Study 2 Covariance Adjusted Post-Treatment Mean Comparisons from Suburban-Semi-Rural Sample Self-Report Measures

Well-being	<i>alpha</i>	<i>M-ctrl</i>	<i>M-CARE</i>	<i>d</i>	<i>p</i>
PANAS Positive Affect	.86	3.65	3.70	.11	.72
PANAS Negative Affect	.89	1.96	7.78	.43	.17
CES Depressive Symptoms	.94	10.74	9.99	.09	.78
TUS Task-Related Hurry	.82	3.84	3.85	.02	.95
TUS General Hurry	.69	3.37	3.27	.27	.38
Daily Physical Symptoms	--	14.17	14.90	.05	.87
<b>Motivation/Efficacy</b>					
PIS Motivating Score	--	1.72	2.71	.63	.05
TSES Student Engagement	.91	6.89	6.81	.07	.81
TSES Instructional Practices	.95	7.04	7.32	.26	.40
TSES Classroom Management	.92	7.24	7.08	.19	.54
<b>Mindfulness</b>					
FFMQ Observing	.79	3.12	3.25	.19	.53
FFMQ Describing	.91	3.49	3.55	.11	.73
FFMQ Awareness	.85	3.58	3.46	.21	.49
FFMQ Non-Judging	.85	3.54	3.61	.09	.78
FFMQ Non-Reactivity	.81	3.14	3.10	.08	.80

**Observation.** Comparisons between the CARE treatment group and control group CLASS factor scores were made at the post-test period using covariance adjusted estimates. Each CLASS factor score was adjusted for its baseline measurement at the pre-test period. Least-square mean comparisons were then made to test for a treatment effect. Contrary to our hypothesis, the results suggested no significant treatment effects for any of the three factors.

**Focus Group Findings.** Analyses of the student teacher focus groups indicate that participants reported finding

the CARE program helpful in broadening their awareness of their emotions, emotional triggers, and their distress level in their classrooms and in their personal lives. They reported recognizing habits such as rushing (walking fast and eating fast), but felt powerless to change these things due to schedule and workload. These participants reported liking the program but also raised concerns, noting their difficulty concentrating during some of the longer practice segments, difficulty with the program length, and some felt uncomfortable with some of the exercises. These participants reported

few changes in classroom dynamics or student relationships as a result of the program, citing that the district they work in already employs a level of community building that left little room for improvement, and the children they work with rarely present challenging behaviors.

The mentor teacher focus group revealed that these teachers felt much less of a need for stress reduction; primary motivating factors for participating in the study were supporting their interns and receiving compensation. Mentor teachers reported being interested in learning about their own distress and learning stress reduction skills, but after the program was completed some stated that they already knew much the material covered and that the program served as a “good reminder.” Some reported increased empathy for other teachers and interns, and none reported changes in student relationships or classroom management techniques as a result of the program.

## DISCUSSION

The purpose of the present study was to examine whether the CARE professional development program improves teachers’ and student teachers’ social-emotional skills (motivation/efficacy and mindfulness) and well-being and consequently improves their ability to develop and maintain a well-managed learning environment and provide optimal emotional and instructional support to their students. Results from Study 1 demonstrated improvements for pre-post intervention in well-being. Two dimensions of time urgency (task-related hurry and general hurry) showed significant ( $p < .10$ ) pre-post improvement in this sample, suggesting that teachers felt reduced stress associated with time demands. Changes in motivational orientation/efficacy pre-post intervention were not significant but were in the expected direction of improvement. The most consistent significant effects were found among measures of mindfulness. We found significant ( $p < .10$ ) improvement at post-test for the five facets of the Five Facet Mindfulness Questionnaire ranging in effect size from  $d = .21$  to  $.94$ , and the Interpersonal Mindfulness in Teaching (IMT) scores improved at post-test with an effect size of  $d = .48$ . As expected, urban teachers found the program to be enjoyable and beneficial to their teaching. Overall, participants were highly satisfied with the program and found it helpful in improving their classroom management and relationships with students. A majority reported improvements in their students’ behavior and academic performance. The results of the focus groups supported the program satisfaction findings and revealed that as a result of CARE, teachers developed a greater awareness of their stress and emotional reactivity and had developed skills to better self-regulate during their busy working lives. While we were unable to collect classroom observational

data during Study 1, we are currently doing so with a sample in the same urban setting and it will be interesting to see if CARE has effects on classrooms in these settings.

In contrast, the results from the suburban/semi-rural sample were more modest. CARE teachers showed a mild, non-significant reduction in negative affect ( $p = .17$ ) as compared with the control group. Regarding treatment effects among measures of motivational orientation/efficacy, we found a significant treatment effect on the Problems in Schools (PIS) motivating total score ( $p < .05$ ) where CARE teachers showed more autonomy supportive orientation at post-test compared to the controls. We found no significant treatment effects on the measures of mindfulness. The Study 2 sample did not report the same high level of satisfaction as found among the Study 1 teachers. Furthermore, Study 2 participants did not report high levels of engagement with the program nor the same beneficial personal or professional outcomes. Finally, data collected via classroom observations did not show treatment effects.

Several factors may explain the differences in findings across the two samples. The urban and suburban/semi-rural school environments are extremely different. The urban district has very high levels of poverty and large numbers of children with behavioral and academic difficulties that put them at risk of school failure. Many of the teachers from this district felt they had marginal institutional support. As an added stressor, the district had recently experienced political turmoil resulting in the firing of several top administrators, some schools were closed, and teachers’ jobs came under threat. In contrast, student teachers and mentors of the suburban/semi-rural school environments have lower numbers of children at-risk and reported receiving stronger institutional support. This district is stable and well-funded and has very low teacher turnover. Indeed, mentor teachers were chosen based upon their outstanding performance and these mentor teachers reported that they felt CARE did not provide new information but served as a reminder.

While student teachers reported having high levels of distress associated with the pressure of academic performance (lesson plans, coursework, and performance evaluations), it is interesting that CARE did not appear to be as relevant to their current needs as it did to the urban sample. The context of CARE delivery where some mentors were present with student teachers may have inhibited the uptake of the material by the student teachers. It may be especially important to consider social hierarchies when planning and delivering CARE to groups in the future, as the presence of superiors may inhibit participation. Furthermore, it is possible that the presence of the mentor teacher in the classroom provided a buffer for the students that protected them from the occupational distress that working teachers often report.

These contrasting results suggest that CARE may be

best suited for individuals who have already established their teaching/professional identity but experience challenging occupational stressors that interfere with their performance. The CARE program may also be particularly suited to supporting teachers working with at-risk populations of students. As CARE was designed to support teachers who are exposed to high levels of emotional stress and who find that emotional reactivity interferes with their teaching, it is possible that CARE may need to be modified to be more helpful to student teachers.

These studies were designed to be exploratory and to provide pilot data for further refinement to the intervention and research protocol. Nevertheless, several limitations complicated our ability to adequately test the study hypotheses. The primary limitation of these studies was the small sample sizes: 31 participants in Study 1 and 43 participants (21 in the CARE group and 22 in the control group) in Study 2. These sample sizes substantially reduced the power to detect significant differences pre to post in Study 1 and between the experimental and control groups in Study 2. Despite these sample size limitations, Study 1 results were encouraging. Furthermore we learned that the social dynamic of presenting the CARE program to individuals at various power differentials may pose challenges to program uptake. Student teachers may have experienced added anxiety participating in such a program alongside mentors who were in an evaluative position. Mentors may have felt primarily motivated to support their mentees rather than to engage in personal exploration and learning. Furthermore, these conditions may have limited participants' openness to disclose challenges and/or difficulties during both the program and the focus groups.

Although further work is required to gain a more complete understanding of CARE's effects under various conditions, the results of Study 1 suggest that CARE is a promising intervention to support teachers experiencing the emotional stress of working in challenging settings. In this manner, CARE may begin to address an important professional development need long ignored by the education research community. While research has demonstrated that teachers may deal with highly stressful emotional situations

in ways that compromise their ability to provide support to students, especially in high-risk settings, there is a paucity of research aimed at supporting teachers' SEC and well-being as means of promoting resilience and improving their performance and the performance of their students.

This research contributes to our understanding of competent classroom management and teacher care and begins to reveal how these constructs may be interrelated. In recent years there has been a move towards a more authoritative and proactive approach to classroom management (as opposed to controlling negative behaviors through coercive measures; Angell, 1991; Brophy, 2006; Glasser, 1988, 1998a; Levin & Nolan, 2006). This approach encourages cooperation and engagement through the careful application of teacher care in the form of establishing warm and supportive relationships and learning communities, providing firm but sensitive limit-setting and employing ongoing preventive strategies (Kohn, 1996; Marzano et al., 2003; Noddings, 2005; Watson, 2003; Watson & Battistich, 2006). Particularly relevant to this study is the suggestion that authoritative approaches rely on teachers' and students' self-regulation for the development and maintenance of a learning environment where students cooperate out of a sense of shared commitment and responsibility rather than as a means to avoid punishment or earn rewards (Weinstein, 1999; Woolfolk Hoy & Weinstein, 2006). This major paradigm shift has necessitated a greater degree of teacher SEC than was essential for classroom management in the past. Indeed, this shift was presaged by the work of Jacob Kounin who discovered a construct he identified as "withitness" (Kounin, 1977) associated with the teachers' high degree of awareness of individual and group social and emotional dynamics and the ability to influence and regulate these dynamics proactively. His research suggested that SEC may help teachers maintain attentive and responsive monitoring, which prevents disruptive behavior and supports student on-task behavior. The pilot studies here indicate that teachers' own development is a key issue if we are to improve the conditions of schooling, support teacher caring and commitment, and improve the academic and social-emotional growth of students.

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