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The Prosocial Classroom: Teacher Social and Emotional Competence in Relation to Student and Classroom Outcomes

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The authors propose a model of the prosocial classroom that highlights the importance of teachers' social and emotional competence (SEC) and well-being in the development and maintenance of supportive teacher–student relationships, effective classroom management, and successful social and emotional learning program implementation. This model proposes that these factors contribute to creating a classroom climate that is more conducive to learning and that promotes positive developmental outcomes among students. Furthermore, this article reviews current research suggesting a relationship between SEC and teacher burnout and reviews intervention efforts to support teachers' SEC through stress reduction and mindfulness programs. Finally, the authors propose a research agenda to address the potential efficacy of intervention strategies designed to promote teacher SEC and improved learning outcomes for students.

KEYWORDS: classroom management, school/teacher effectiveness, social progresses/development, stress/coping, teacher characteristics, teacher context.

Over the past decade, multiple surveys indicate that educators, parents, and the public recognize the need for a broad educational agenda to not only improve academic performance but also to enhance students' social–emotional competence, character, health, and civic engagement (Metlife, 2002; Public Agenda, 1994, 1997, 2002; Rose & Gallup, 2000). In addition to promoting students' academic achievement, this agenda focuses on helping students interact in socially skilled and respectful ways; practice positive, safe, and healthy behaviors; contribute ethically and responsibly to their peer group, family, school, and community; and possess basic competencies, work habits, and values as a foundation for meaningful employment and engaged citizenship (Elias et al., 1997; Jackson & Davis, 2000; Learning First Alliance, 2001; Osher, Dwyer, & Jackson, 2002).

This set of goals for American education is a tall order, and it is clear that a student's formal learning context is largely shaped by the student's teacher (Eccles &

Roeser, 1999). Socially and emotionally competent teachers set the tone of the classroom by developing supportive and encouraging relationships with their students, designing lessons that build on student strengths and abilities, establishing and implementing behavioral guidelines in ways that promote intrinsic motivation, coaching students through conflict situations, encouraging cooperation among students, and acting as a role model for respectful and appropriate communication and exhibitions of prosocial behavior.

These teacher behaviors are associated with optimal social and emotional classroom climate and desired student outcomes. An optimal classroom climate is characterized by low levels of conflict and disruptive behavior, smooth transitions from one type of activity to another, appropriate expressions of emotion, respectful communication and problem solving, strong interest and focus on task, and supportiveness and responsiveness to individual differences and students' needs (La Paro & Pianta, 2003).

When teachers lack the resources to effectively manage the social and emotional challenges within the particular context of their school and classroom, children show lower levels of on-task behavior and performance (Marzano, Marzano, & Pickering, 2003). In addition, the classroom climate deteriorates, triggering in the teacher what we refer to as a "burnout cascade." The deteriorating climate is marked by increases in troublesome student behaviors, and teachers become emotionally exhausted as they try to manage them. Under these conditions, teachers may resort to reactive and excessively punitive responses that do not teach self-regulation and may contribute to a self-sustaining cycle of classroom disruption (Osher et al., 2007).

Emotionally exhausted teachers are at risk of becoming cynical and callous and may eventually feel they have little to offer or gain from continuing, and so drop out of the teaching workforce. Others may stay—although unhappily—coping by maintaining a rigid classroom climate enforced by hostile and sometimes harsh measures bitterly working at a suboptimal level of performance until retirement. In either case, burnout takes a serious toll on teachers, students, schools, districts, and communities. Burned-out teachers and the learning environments they create can have harmful effects on students, especially those who are at risk of mental health problems.

The purpose of this article is to propose and present support for the prosocial classroom mediational model that establishes teacher social and emotional competence (SEC) and well-being as an organizational framework that can be examined in relation to student and classroom outcomes. We present a graphical model and describe the variables and their relationships. We propose a model to explain how deficits in teacher SEC and well-being may provoke a "burnout cascade" that may have devastating effects on classroom relationships, management, and climate. We hypothesize that the quality of teacher–student relationships, student and classroom management, and effective social and emotional learning (SEL) program implementation all mediate classroom and student outcomes. We review a broad body of research from the educational, sociological, and psychological literature to support our proposed model. Finally, we review interventions that may support teacher SEC and well-being and propose an agenda for future research in this nascent area.

This review is not intended to be a comprehensive meta-analysis; we review select studies to provide evidence of relationships among our variables of interest

(teacher SEC and well-being, teacher–student relationships, classroom management, social and emotional learning program implementation, and classroom climate). We recognize that these variables are not discrete and interact in important ways that we address throughout this article. Furthermore, we highlight how each element of the model may be influenced by multiple contextual factors.

Although the research we review does not cover all grade levels within each area of interest, we believe that teacher SEC is important to positive outcomes at all grade levels, but possibly to varying degrees. At different grade levels, teacher SEC may be more salient in one area than in another. For example, teacher SEC may be especially important to developing warm and supportive teacher–student relationships and effective SEL program implementation in the self-contained classrooms of pre-K through elementary school; teacher SEC may be equally important to classroom management at all grade levels.

The Prosocial Classroom Model

Figure 1 illustrates a model in which teachers' SEC and well-being influences the prosocial classroom atmosphere and student outcomes. First, we view teacher SEC as an important contributor to the development of supportive teacher–student relationships. A teacher who recognizes an individual student's emotions, understands the cognitive appraisals that may be associated with these emotions, and how these cognitions and emotions motivate the student's behavior can effectively respond to the student's individual needs. For example, if a teacher understands that a student's challenging behavior and difficulty with self-regulation results from problems faced at home, he or she may show greater concern and empathy and be better able to help the student learn to self-regulate rather than resorting to punitive or coercive tactics.

Second, teachers higher in SEC are likely to demonstrate more effective classroom management; they are likely to be more proactive, skillfully using their emotional expressions and verbal support to promote enthusiasm and enjoyment of learning and to guide and manage student behaviors. Their SEC also supports more effective classroom management by understanding the dynamics of classroom conflict situations. For example, students with self-regulation problems often become classroom scapegoats and may be intentionally provoked by their peers in ways that can be very subtle. Because of their more obvious aggressive response to this subtle yet effective provocation, teachers often reinforce these students' scapegoat status by punishing them without noticing and addressing the behavior of the provocateur. A more socially and emotionally aware teacher may notice this dynamic and handle this situation in a way that responds to both behaviors more effectively.

Third, we propose that teachers with higher SEC will implement social and emotional curriculum more effectively because they are outstanding role models of desired social and emotional behavior. Their social and emotional understanding supports their ability to apply extensive process-based activities in everyday situations as they naturally occur in the classroom. In addition, we conceptualize a transactional relationship between these three aspects of the model and the outcome of a healthy classroom climate. In turn, a healthy classroom climate directly contributes to students' social, emotional, and academic outcomes. Improvements in classroom climate may reinforce a teacher's enjoyment of teaching, efficacy, and

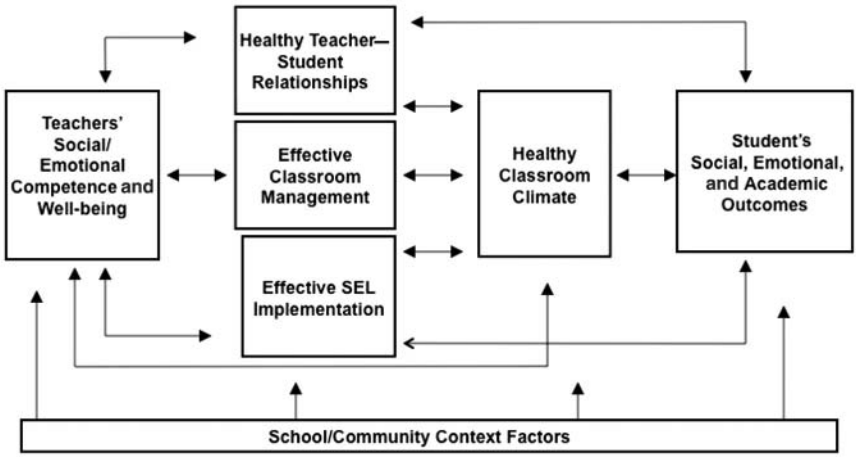

FIGURE 1. *The prosocial classroom: A model of teacher social and emotional competence and classroom and student outcomes.*

commitment to the profession, thereby creating a positive feedback loop that may prevent teacher burnout.

Finally, we recognize that various contextual factors, inside and outside the school building, may influence teachers' SEC. These factors include coteacher support, principal and district leadership, school climate and norms, school district values and in-service opportunities, community culture, and local and federal education policy and demands. A teacher's overall well-being and efficacy as well as factors such as friendships, marital relations, and degrees of life stress in a teacher's personal life might also affect the performance of social and emotional abilities in the classroom.

Teachers' Social and Emotional Competence

Viewed as an outcome of SEL, SEC is a broad construct. We use the broadly accepted definition of social and emotional competence developed by the Collaborative for Academic, Social, and Emotional Learning (2008). This definition involves five major emotional, cognitive, and behavioral competencies: self-awareness, social awareness, responsible decision making, self-management, and relationship management (Zins, Weissberg, Wang, & Walberg, 2004).

Although we value the related narrower construct of emotional intelligence (EI; involving perception of emotions, use of emotions to facilitate thinking, understanding of emotions, and management of emotions; Brackett & Katulak, 2006; Salovey & Mayer, 1990) in presenting our model, we chose to use the broader SEL construct that includes competencies most strongly related to adaptation and performance. Using the SEL definition also more directly connects teacher competencies with those they are entrusted to teach to their students. (For a comprehensive

explanation of the similarities and differences between these two constructs, see Zins, Payton, Weissberg, & Unte O'Brien, 2007). Later, we review research and programming that has addressed EI in relation to teacher stress and job performance. EI is associated with a wide range of critical outcomes among adults and may be useful for understanding individual differences in teacher SEC. For example, higher scores of the Mayer–Salovey–Caruso Emotional Intelligence Test (J. D. Mayer, Salovey, & Caruso, 2002) are associated with higher quality interpersonal relationships (Brackett, Warner, & Bosco, 2005; Lopes et al., 2004), academic performance and social competence (Brackett, Rivers, Shiffman, Lerner, & Salovey, 2006; Gil-Olarte Marquez, Palomera, & Brackett, 2006; Lopes et al., 2006), and important workplace outcomes such as stress tolerance and peer and/or supervisor ratings of interpersonal facilitation (Lopes et al., 2006). Lower scores are associated with drug use, alcohol consumption, and deviant behavior (Brackett, Mayer, & Warner, 2004).

Characteristics of socially and emotionally competent teachers. Socially and emotionally competent teachers have high self-awareness. They recognize their emotions, emotional patterns, and tendencies and know how to generate and use emotions such as joy and enthusiasm to motivate learning in themselves and others. They have a realistic understanding of their capabilities and recognize their emotional strengths and weaknesses.

Socially and emotionally competent teachers also have high social awareness. They know how their emotional expressions affect their interactions with others. Such teachers also recognize and understand the emotions of others. They are able to build strong and supportive relationships through mutual understanding and cooperation and can effectively negotiate solutions to conflict situations. Socially and emotionally competent teachers are culturally sensitive, understand that others may have different perspectives than they do, and take this into account in relationships with students, parents, and colleagues.

Socially and emotionally competent teachers exhibit prosocial values and make responsible decisions based on an assessment of factors including how their decisions may affect themselves and others. They respect others and take responsibility for their decisions and actions.

Socially and emotionally competent teachers know how to manage their emotions and their behavior and also how to manage relationships with others. They can manage their behavior even when emotionally aroused by challenging situations. They can regulate their emotions in healthy ways that facilitate positive classroom outcomes without compromising their health. They effectively set limits firmly, yet respectfully. They also are comfortable with a level of ambiguity and uncertainty that comes from letting students figure things out for themselves.

SEC is associated with well-being. When teachers experience mastery over these social and emotional challenges, teaching becomes more enjoyable, and they feel more efficacious (Goddard, Hoy, & Woolfolk Hoy, 2004). However, whereas the above teacher characteristics would be considered ideal in any educational setting, little attention has been paid to supporting teachers' SEC. Given the lack of explicit preservice or in-service training aimed at teachers' personal development, the current educational system appears to assume that teachers have the requisite SEC to create a warm and nurturing learning environment, be emotionally responsive to students, form supportive and collaborative relationships with sometimes

difficult and demanding parents, professionally relate to administrators and colleagues, effectively manage the growing demands imposed by standardized testing, model exemplary emotion regulation, sensitively coach students through conflict situations with peers, and effectively (yet respectfully) handle the challenging behaviors of disruptive students. Thus, contextual changes including alterations in the articulation of the broader society and school district goals for young people, policies and foci for preservice and in-service training, new models of performance assessment, and other factors might alter the valuing and support for teachers' SEC.

Because SEC is context dependent, an individual may function in a high level in one context but need training and/or experience to adapt to another. For example, an individual who manages his or her social and emotional life well in a work domain where he or she interacts with adults in predictable ways may not necessarily have the competence to function well in a classroom full of energetic young children without additional training or support. Also, a teacher who moves from a school with a cohesive and high-quality school climate to one with weak leadership and lack of trust between teachers may require new skills and supports. A teacher who moves to a school composed primarily of adults and children from an unfamiliar culture may need to adapt in new ways and receive additional training (Matsumoto, 2007). Furthermore, the developmental needs of students may require changes in teacher competencies. For example, a teacher who adeptly handles the social and emotional needs of a first-grade class may require extra training if he or she transfers to a secondary school classroom where a different approach may be required. Finally, other context factors such as school climate and administrator support may moderate the SEC a teacher may exhibit in a particular classroom setting.

Given the very high demands placed on teachers, it is surprising that they rarely receive specific training to address the importance of social and emotional issues in the classroom or how to develop the SEC to successfully handle them (Hargreaves, 1998). Although a great deal of attention has spotlighted students' development, there has been little focus on teachers' own development despite evidence that teachers make important contributions to desirable classroom and student outcomes.

When teachers lack the SEC to handle classroom challenges, they experience emotional stress. High levels of emotional stress can have an adverse effect on job performance and may eventually lead to burnout. Among teachers, burnout threatens teacher–student relationships, classroom management, and classroom climate. In our review, we provide support for the first part of the model by relating what is known about some components of teacher SEC (or lack thereof) to several of the model's mediators (teacher–student relationships, classroom management, etc.).

Next, this article reviews literature establishing links between the three mediating components of our model (teacher–student relations, classroom management, and SEL program implementation) and classroom climate and student outcomes. Where not explicitly articulated in this research, we describe how the evidence may suggest that teacher SEC plays a role.

Teacher SEC, Emotional Stress, and Burnout

Today's teachers face ever-increasing demands. Growing numbers of children are coming to school unprepared and many have serious behavior problems as early as preschool (Gilliam, 2005). Evidence suggests that SEC is related to emotional

stress and burnout. In particular, the dimensions of self-awareness and self-management appear to influence a teacher's ability to cope with the emotional demands of teaching. Society's expectation that teachers manage the emotional lives of their students as well as teach subject matter may leave many teachers exhausted and burned out (Hargreaves, 1998). Burnout results from a breakdown in coping ability over time and is viewed as having three dimensions: emotional exhaustion, depersonalization, and feelings of a lack of personal accomplishment (Maslach, Jackson, & Leiter, 1997).

With ever-greater emotional demands placed on teachers with little if any support, it is not surprising that the rate of teacher burnout is increasing and that teachers are leaving the profession at an increasing rate (Ingersoll, 2001; Metlife, 2004; Provasnik & Dorfman, 2005). Emotional stress and poor emotion management consistently rank as the primary reasons teachers become dissatisfied and leave teaching (Darling-Hammond, 2001; Montgomery & Rupp, 2005). Indeed, compared with many other professions, teachers report some of the highest levels of occupational stress (International Labour Office, 1993). Consequently, there is growing concern about the adverse effects teacher emotional stress and attrition rates may have on educational quality (Travers, 2001) and on school budgets (Alliance for Excellent Education, 2005).

Unlike many other professions, teachers are constantly exposed to emotionally provocative situations and have limited options for self-regulation when a situation provokes a strong emotional reaction. For example, when feeling highly aroused, a teacher cannot simply excuse herself until she calms down. She must stay in the classroom with the students. Indeed, coping with their own negative emotional responses is a major stressor for teachers (Carson, Templin, & Weiss, 2006; Montgomery & Rupp, 2005; Sutton, 2004). Emotions may influence teachers' cognitive functioning and motivation, and students' misbehavior often elicits distracting negative emotions that consequently can have a negative effect on teaching (Emmer, 1994; Emmer & Stough, 2001; International Labour Office, 1993). Experiencing frequent negative emotions such as frustration, anger, guilt, and sadness may reduce teachers' intrinsic motivation and feelings of self-efficacy and lead to burnout (Kavanaugh & Bower, 1985). In contrast, teachers who regularly experience more positive emotions may be more resilient (Fredrickson, 2001; Gu & Day, in press), intrinsically motivated, and better able to cope with the complex demands of teaching (Sutton & Wheatley, 2003).

According to the transactional model of stress and coping (Aldwin, 2007; Epstein & Meier, 1989; Lazarus, 1991; Lazarus & Folkman, 1984), individuals react to challenging situations by engaging in a cognitive process of appraisal to determine whether the event poses a challenge or a threat in relation to the individual's perceived competence to handle the situation. Next, an individual will engage in cognitive and behavioral adaptation strategies to manage the event. When they believe they have the competence to do so, teachers may use action-focused coping: taking direct action to eliminate the sources of stress. In situations where teachers believe they can do little to modify the situation, they may engage in emotion-focused coping and may use mental or physical palliative techniques to lessen feelings of stress (Kyriacou, 2001). These palliative techniques can involve constructive strategies such as positive reappraisal or unconstructive strategies such as avoidance or denial. An individual's appraisal and adaptive

behavior is influenced by individual characteristics such as personality, demographics, current health status, personal life stressors, and, we would argue, SEC. Furthermore, teachers may use the support of fellow teachers, guidance staff, or their administrative supervisor (e.g., principal) to help them cope.

The research on teacher stress and emotions has thus far been primarily exploratory: Cross-sectional and correlational studies have examined the contextual-organizational and personal factors associated with teachers' emotions, stress, and burnout (see Montgomery & Rupp, 2005, for a meta-analysis of studies on teacher stress). Although the limitations of this research make it difficult to determine causal relationships, findings suggest that teachers with inadequate SEC face situations that provoke emotions they have difficulty managing, their classroom management efforts lack effectiveness, the classroom climate is suboptimal, and they may experience emotional exhaustion provoking a "burnout cascade." They may develop a callous, cynical attitude toward students, parents, and colleagues (depersonalization) and eventually grow to feel they are ineffective teachers (lack of personal accomplishment). Teachers who experience burnout are less likely to demonstrate sympathy and caring to their students, have less tolerance for disruptive behavior, and are less dedicated to their work (Farber & Miller, 1981).

Emotional regulation plays an important role in teacher burnout. Applying affective events theory (Weiss & Cropanzano, 1996), Carson et al. (2006) examined the daily emotional experiences of 44 middle school teachers over a 2-week period using Ecological Momentary Assessment procedures (Stone & Shiffman, 1994) and teachers' daily journal entries to examine how ongoing emotional experiences may contribute to burnout. Burnout was significantly associated with reports of daily emotions, events, emotion regulation strategies as well as teacher self-reported job performance, which suggests that teacher burnout (and reduced teacher performance) results from cumulative daily experiences of negative affect provoked by taxing work-related experiences. Furthermore, the stress associated with attempts to manage emotional displays appeared to exacerbate this effect (Carson & Templin, 2007).

Chan (2003) studied relationships among the three components of burnout and hypothesized four components of EI (emotional appraisal, positive regulation, empathic sensitivity, and positive utilization; Schutte et al., 1998) in a sample of 167 Hong Kong secondary school teachers. A structural equation model indicated that Emotional Appraisal (related to the SEL dimension of self-awareness) and Positive Regulation (related to the SEL dimension of self-management) were significant predictors of emotional exhaustion. Furthermore, emotional exhaustion was a significant predictor of depersonalization that predicted lack of personal accomplishment, supporting our hypothesis that poor SEC may provoke a "burnout cascade." Poor teacher SEC may contribute to a less optimal classroom climate, leading to teacher emotional exhaustion, depersonalization, and lack of personal accomplishment in this order.

Evidence suggests that there is a relationship between teacher emotional exhaustion and classroom climate. In a study involving 3,044 Canadian teachers across three grade levels (1,203 elementary, 410 intermediate, and 1,431 secondary), Byrne (1994) examined predictors of the three factors of burnout and found that at every grade level classroom climate was a significant predictor of emotional exhaustion and emotional exhaustion was a significant predictor of

depersonalization. "These findings suggest that as the social climate of the classroom deteriorates, teachers become emotionally exhausted and develop increasingly negative attitudes toward their students and the teaching profession in general" (p. 665).

If, as we propose in our model, teacher SEC contributes to healthy classroom climate through the development of supportive teacher–student relationships, effective classroom management, and quality SEL program implementation, perhaps contextual changes that promote teacher SEC may prevent the deterioration of classroom climate that leads to teacher burnout (see section "Teacher Effects on Student and Classroom Outcomes" for examples of contextual supports).

Although research has demonstrated that emotionally challenging situations such as maintaining discipline and teaching students who lack motivation are frequently experienced stressors for teachers (Hargreaves, 2000; Kyriacou, 2001; Sutton & Wheatley, 2003), there is a paucity of research directed toward how teachers' ability to regulate intense emotions in response to these stressors may contribute to or prevent burnout (Carson & Templin, 2007; Sutton, 2004). In addition, little research has focused on how teachers' SEC supports their ability to cope with these stressors and regulate the accompanying emotions to promote supportive relationships with their students and prevent and manage disruptive student behaviors (Chan, 2006).

Although there is evidence that a teacher's warmth and sensitivity contribute to healthy teacher–student relationships and classroom climate (Pianta, La Paro, Payne, Cox, & Bradley, 2002), little research has explored how a teacher's SEC may be associated with greater positive affect and student and/or classroom outcomes. More research is needed to establish the relationships between specific dimensions of teacher SEC and the mediating variables of our model (teacher–student relationships, classroom management, and SEL program implementation); there is growing evidence to suggest their relationship and to support the links between these mediators and student and classroom outcomes. Next, we review this evidence.

Teacher Effects on Student and Classroom Outcomes

There is growing recognition that teachers make a crucial contribution to the social and emotional development of their students (Birch & Ladd, 1998; Hamre & Pianta, 2001, 2006; Murray & Greenberg, 2000; Pianta, Hamre, & Stuhlman, 2003) that has lasting effects on their lives well into adulthood (Pederson, Fatcher, & Eaton, 1978). Teachers influence their students not only by how and what they teach but also by how they relate, teach and model social and emotional constructs, and manage the classroom. This influence is affected by numerous contextual factors (e.g., school climate, principal, and parent support). In their report of a classic natural experiment on school effects, Rutter, Maughan, Mortimore, Ouston, and Smith (1979) concluded that "teaching performance is a function of school environment as well as of personal qualities" (p. 39).

In this section, we theoretically link the core dimensions of teacher SEC to the primary mediators of our model: healthy teacher–student relationships, effective SEL program implementation, and effective classroom management. Where available, we review research supporting these links and the links between the mediators and the classroom and student outcomes. Throughout, we address contextual issues that may affect teacher SEC and the other dimensions of our model.

Healthy teacher–student relationships. Between ages 4 and 12, children are developing the skills vital to SEC and this development can be supported by a child's positive relationship with adults (Denham, 1998; Dodge, 1986). There is a growing body of evidence that supportive teacher–student relationships play an important role in healthy school and classroom climate, students' connection to school, and desired student outcomes, both academic and social–emotional (Abbott et al., 1998; Darling-Hammond, Ancess, & Ort, 2002; Gambone, Klem, & Connell, 2002; McNeely, Nonnemaker, & Blum, 2002; Osher et al., 2007). Furthermore, supportive student–teacher relationships provide the keystone to effective classroom management. Indeed, in a meta-analysis of more than 100 studies, Marzano et al. (2003) found that teachers who had high-quality relationships with their students had 31% fewer behavior problems over the course of a school year than teachers who did not.

Students' perceptions of teacher support have a direct effect on their interest and motivation (Wentzel, 1998), and teachers' expectations of student achievement (which has an affective component) influence the way they behave toward their students and thus can affect students' motivation, self-perceptions, and academic performance (Jussim & Harber, 2005). However, teacher support in the form of care for students' well-being and comfort may be necessary but insufficient to promote mastery goal orientation: Care and concern for students' *learning* may also be required (Patrick, Anderman, Ryan, Edelin, & Midgley, 2001).

Teachers are role models who continuously induce and respond to the emotional reactions of their students. Pianta et al. (2003) applied components of attachment theory (Ainsworth, Belehar, Waters, & Wall, 1978; Bowlby, 1982) in understanding teacher–student relationships and the teacher's function as an important role model. According to attachment theory, relationships with supportive caregivers, characterized by trust, responsiveness, and involvement, promote social and emotional development through the development of healthy internalized working models. Children with supportive internal working models feel a sense of security that allows them to explore novel situations (Bretherton & Munholland, 1999). Therefore, when teachers are warm and supportive, they provide students with a sense of connectedness with the school environment and the sense of security to explore new ideas and take risks—both fundamental to learning (Mitchell-Copeland, Denham, & DeMulder, 1997; Murray & Greenberg, 2000; Watson, 2003).

However, it is not always easy to be warm and supportive, especially when provocative student behaviors thwart the teacher's efficacy to perform his or her primary instructional role and/or the school culture promotes punitive control measures over more authoritative approaches (G. R. Mayer, 2001). Although the quality of student–teacher relationship depends, in part, on how teachers express and process negative emotions (George & Solomon, 1996), as we reviewed above, for many teachers, regulating negative emotions in the classroom can be challenging and is a commonly reported stressor (Carson & Templin, 2007; Sutton, 2004). Although they regularly face situations that provoke anger, contempt, disgust, sadness, and frustration, to develop and maintain healthy relationships with their students teachers must find appropriate ways to express (or inhibit) their feelings in a classroom setting (Hargreaves, 2000). Although teachers recognize the importance of regulating their emotions and think they are keeping their feelings hidden from students, often they are less successful than they imagine (Carson & Templin, 2007; Sutton, 2004; Sutton & Wheatley, 2003).

Emotionally challenging events that teachers typically face often involve interactions with students who are not emotionally well regulated, including those caught in anger, anxiety, and sadness. These students, at highest risk of developing behavioral disorders and emotion regulation difficulties, are the very students in greatest need of a supportive relationship with their teacher (U.S. Department of Health and Human Services, 1999). A teacher's support and sensitive reactions to their challenging behaviors may have lasting positive effects on the students' social and emotional development, especially in the early grades (Lynch & Cicchetti, 1992).

Teacher reports of stress and emotional negativity are associated with student misbehaviors (Yoon, 2002), and as one might expect, teachers express negative emotions in response to student behaviors on a routine basis (Carson & Templin, 2007; Hamre & Pianta, 2001; Pianta et al., 2003; Sutton & Wheatley, 2003). This stress is magnified when teachers have more than one or two disruptive students in a classroom: Even teachers who would normally cope quite effectively under less stressful circumstances may become coercive and harsh (Conduct Problems Prevention Research Group, 1992).

Teachers who are overwhelmed by negative emotion express a lack of enthusiasm for cultivating positive relationships with their students and report becoming less involved, less tolerant, and less caring (Blase, 1986). Furthermore, teachers' negative affect may have long-term effects on students. Indeed, Hamre and Pianta (2001) found that kindergarten teachers' reports of negative affect in relation to a student were meaningful predictors of student social and academic outcomes through at least fourth grade.

Inadequate relations with a teacher may lead to dislike and fear of school and over time may lead to feelings of alienation and disengagement. When students feel alienated from school they are at greater risk of developing antisocial behaviors, delinquency, and academic failure (U.S. Department of Education, 1998). In contrast, supportive relationships with teachers can promote feelings of safety and connectedness among students, providing the social support necessary to thrive socially, emotionally, and academically.

Although this is true for students at all grade levels, it is particularly important for younger students as a young child's experience with his or her teacher can affect future relationships with teachers and peers. The link between teacher–student relationship quality and student outcomes has been examined in several studies. Next, we review studies demonstrating the effect of teachers' support on student outcomes at early elementary, later elementary, middle school, and high school.

Relationship management is a core dimension of SEC that plays an important role in teachers' ability to develop and maintain caring and supportive relationships with their students. Birch and Ladd (1998) studied 199 Midwestern kindergarten children (predominantly Euro American and lower and middle class) and their teachers ($N = 17$) longitudinally. The study used an innovative methodology that included both teacher (the Student–Teacher Relationship Scale [Pianta, Steinberg, & Rollins, 1995] and Child Behavior Scale [Ladd & Profilet, 1996]) and peer sociometric reports of aggressive behavior. They demonstrated that the kindergarten teachers' perceptions of the quality of their relationships with students significantly affected the students' behavior and teacher relationship in first grade. More specifically, after controlling

for gender, students whose kindergarten teacher reported having an antagonistic, disharmonious relationship with them were less likely to exhibit prosocial behavior in first grade. The authors conclude that "children who are involved in conflictual relationships with teachers may be less motivated to display prosocial behavior and may feel that the behavioral options available to them are constrained by the aversive nature of these relationships" (Birch & Ladd, 1998, p. 943).

In another innovative study, Hughes, Cavell, and Willson (2001) examined how peer perceptions of students' teacher–student relationships affect peer sociometric nominations and ratings among an ethnically diverse sample of 993 third- and fourth-grade students (497 boys and 496 girls). Once again, both peer sociometric and teacher reports of behavior were assessed independently. Moderate to strong significant correlations were found between peer reports of teacher conflict and peer reports of both student relational and overt aggression ($r = .53$ and $r = .77$, respectively; $p < .01$), which suggested that the same students nominated as aggressive are also nominated by their peers as having conflictual relationships with teachers. Peer reports of teacher support and teacher conflict were moderately correlated ($r = .59$), which suggested that they make independent contributions to outcome variables. Although girls were rated higher on teacher support and boys were rated higher on teacher conflict, gender was not found to moderate the relationships among teacher support, teacher conflict, or peer ratings.

A series of multiple regression analyses indicated that both teacher conflict and teacher support contributed uniquely to peer ratings of cooperative, overt aggression; relational aggression; and "liked least" status. Furthermore, even after accounting for peer ratings of aggression, ratings of teacher support uniquely accounted for 10% of the variance. Thus, if students perceived that a student had a supportive relationship with the teacher, they were more likely to rate the student as likable.

Further analysis of a selected subgroup of aggressive students showed that teacher support uniquely predicted peer preference within the aggressive students. This suggests that peer perception of teacher support had a buffering effect on peers' social preference of aggressive students and that students take cues from their teacher in determining whether a peer is likable or not. This finding has implications for intervention strategies for improving the social status of rejected and aggressive students. Interventions that directly target the teacher–student relationship by promoting SEC may enable teachers to offer support to students despite their troubling behavior and may make a difference in student social status among peers contributing to their feeling of connectedness with the school community.

In a study of students' school connectedness, Murray and Greenberg (2000) performed a cluster analysis on data collected from 170 fifth- and sixth-grade students (55.9% female, 38.8% students of color, 33.2% mild to moderate disabilities). Students self-reported on their relationships with their school, classmates, and teachers using People in My Life (Cook, Greenberg, & Kusche, 1995). The authors classified 25% of students as Dysfunctional because they scored low on the Affiliation with Teacher and School Bond factors (but above average on Dissatisfaction with Teacher and School Dangerousness), 28% as Functional/Average because they had moderate to average scores on all the factors, 38% as Positively Involved because they had high scores on Affiliation with Teacher and School Bond, and 9% as School Anxious because they had high scores on the School Dangerous factor (and average scores on the other three factors).

Using a multivariate analysis of variance, the authors examined differences between the four clusters on a variety of social and emotional adjustment variables, including measures independently completed by teachers. Students classified as Dysfunctional had poorer self-reported social and school competence, more delinquency, conduct problems, anxiety, and depression when compared with the students identified as Positively Involved. Teacher reports indicated that students classified as Dysfunctional had poorer frustration tolerance, lower task orientation, and more externalizing behaviors than those classified as Positively Involved. Students classified as School Anxious also had poorer self-reported social and school competence and more emotional problems than the Positively Involved group.

These findings indicate that students' relationships with their teachers as well as their feelings of connection with school are related to social and school competence and mental health. Although further research is required to determine why these students do not feel connected to their teacher and school, a teacher high in SEC may be more able to influence a student's feeling of connectedness and is an important factor to consider in future work.

Similar findings have resulted from studies of adolescents. In a study of 353 (93% European American) middle school students, Goodenow (1993) found that belonging and teacher support were related to motivation (Pintrich & DeGroot, 1990) and that both belonging and motivation influenced classroom achievement. Teacher support explained over a third of students' assessment of the interest, importance, and value of the academic work in the class. These findings lend further support to the importance of teacher SEC and suggest that students' impressions of teacher support influence their motivation and classroom performance.

In a study conducted as part of the Add Health longitudinal study of adolescents in Grades 7 through 12, 12,118 students (a random stratified subsample of 90,118 students from the main sample) were interviewed about their risky behavior, health status, family dynamics, peer networks, and connectedness to teachers and school (Resnick et al., 1997). Regression analyses indicated that teacher and school connectedness was a significant contributor to adolescent emotional health, lower levels of violence, and less use of alcohol, cigarettes, and marijuana. These findings suggest that, even among adolescents, school and teacher connectedness is a protective factor.

These and the earlier findings point to the need for research to better understand what individual teacher characteristics and contextual factors contribute to their ability to offer social support and academic encouragement, especially to students who exhibit challenging behavior. We suggest that the SEC dimensions of social awareness, self-management, and relationship management may play an important role. These findings also highlight the need for policies and interventions that can better prepare teachers to develop supportive relationships with *all* students and promote students' feelings of connectedness to school. Next, we review research that links SEL program implementation to classroom and student outcomes and address the role teachers' social and emotional skills plays in how they implement this programming.

Effective SEL program implementation. During the past few decades, numerous evidence-based intervention programs have been designed to promote SEL and

prevent behavior problems among students (see Durlak & Wells, 1997, for a meta-analysis, and Bear, Webster-Stratton, Furlong, & Ree, 2000, and Greenberg et al., 2003, for reviews and critiques of these programs). A recently conducted meta-analysis of SEL programs documented significant benefits to students, including improved academic achievement on standardized tests (Weissberg, Durlak, Taylor, Dymnicki, & Unte O'Brien, 2008).

To review, SEL is the process of acquiring the skills to recognize and manage emotions, develop care and concern for others, make responsible decisions, establish positive relationships, and handle challenging situations effectively. Inspired by Daniel Goleman's (1995) book *Emotional Intelligence*, the field of SEL was developed in response to child development research findings emphasizing the importance of enhancing social and emotional competencies both to promote healthy functioning and prevent the development of mental illness (Greenberg et al., 2003).

A multitude of primary prevention programs provide curricula to facilitate SEL in classroom environments (Collaborative for Academic, Social, and Emotional Learning, 2003). These curricula provide lessons and support for teaching emotional literacy, self-control, social competence, positive peer relations, and interpersonal problem solving (Zins et al., 2004). However, these programs are primarily focused on teaching students these skills and do not provide explicit instruction to promote social and emotional literacy among teachers.

For example, the Caring School Community (CSC, formerly the Child Development Project; Solomon, Watson, Delucchi, Schaps, & Battistich, 1988) includes role-playing activities for emotion and social-perspective taking to promote empathy and social cohesiveness. The PATHS (Promoting Alternative THinking Strategies) curriculum also includes techniques for facilitating controlled emotion expression such as teaching students how to calm down before engaging in problem solving (Kusche & Greenberg, 1994).

Both CSC and PATHS offer methods for improving classroom climate and teachers' responsivity to students' psychosocial and emotional needs. They both involve extensive process-based activities that teachers apply to everyday situations as they naturally arise in the classroom and thus emphasize the importance of teacher modeling. Although these activities require a great deal of SEC on the part of the teacher, these programs do not provide direct instruction for teachers in this regard. Most SEL programs assume that the teacher is prepared to act as an effective emotional coach and role model.

Whereas numerous studies have demonstrated the efficacy of SEL programs for students (Greenberg et al., 2003; Zins et al., 2004), their successful implementation may depend on the teacher's SEC to create an environment that is conducive to SEL, for example, provide a positive role model and facilitate interpersonal problem solving and conflict resolution. Recent findings indicate that diverse factors such as teachers' own teaching efficacy, the support of an effective principal, and the quality of the relationship with those providing ongoing coaching in an SEL program can all affect the quality of implementation (Domitrovich & Greenberg, 2000; Ransford, 2007; Ransford, Greenberg, Small, & Domitrovich, 2006).

There is substantial evidence suggesting that the quality of teacher implementation of SEL programs studied at the elementary level affects student outcomes and that teacher implementation quality depends on the dimensions of SEC, in

particular self-awareness, social awareness, and relationship management (Conduct Problems Prevention Research Group, 1999; Dane & Schneider, 1998; Domitrovich & Greenberg, 2000; Solomon, Battistich, Watson, Schaps, & Lewis, 2000). CSC researchers examined teacher practices associated with students' sense of the classroom as a community (Solomon, Battistich, Kim, & Watson, 1997) and developed an index of program implementation quality based on seven scales derived from classroom observations and four self-report teacher attitude scales most of which focused on factors associated with SEC (Battistich, Schaps, Watson, Solomon, & Lewis, 2000). Thus, teachers' SEC was associated with implementation quality that predicted students' personal, social, and ethical attitudes, values, and motives (Solomon et al., 2000) as well as reductions in students' drug use and other problem behaviors (Battistich et al., 2000).

In a study of more than 150 elementary school classrooms, the quality of teacher implementation of the PATHS Curriculum was related to improvements in classroom climate. Teachers who were rated higher on understanding the program concepts, in generalizing the program skills throughout the day through coaching and modeling, and managing their classroom effectively showed reductions in classroom aggression (Conduct Problems Prevention Research Group, 1999). Indeed, these implementation effects remained after covarying for dosage such that the number of PATHS lessons provided was not as important as the *quality* of those lessons. Thus, teachers' understanding and willingness to integrate SEL concepts and skills into their interactions with their students require SEC and may be critically important for classroom improvements.

Furthermore, students were more engaged in SEL intervention when the teachers provided lessons in an engaging manner and generalized the core concepts interactively throughout the day (Conduct Problems Prevention Research Group, 1999). The teacher's ability to actively apply SEL skills during actual peer conflicts or when students are frustrated, angry, sad, or overexcited requires flexibility, openness, and awareness of the emotional needs of students. Appropriate planning that includes teacher involvement and high-quality training is critical to ensuring quality implementation. When teachers are already feeling overburdened, the haphazard introduction of another curriculum initiative may not provide the necessary support to help teachers realize how important their affect and engagement is to quality implementation and developing students' competence (Kress & Elias, 2006).

It has been suggested that the "psychological-mindedness" (here related to the dimensions of self-awareness, social awareness, self-management, and relationship management) of the teacher may play an important role in the teacher's ability to implement an SEL program effectively (Kusche, Riggs, & Greenberg, 1999). A teacher who is aware of his or her emotional responses and can recognize and empathize with a student's emotional responses may be better prepared to implement an SEL program explicitly through lessons and generalizing the curriculum through activities mentioned above and also as an exemplary role model. In a study of teachers using the PATHS Curriculum, Buss and Hughes (2007) found that teachers' awareness of their own emotions (the self-awareness dimension of SEC) was predictive of curriculum implementation quality.

Classroom and schoolwide climate may also affect SEL program implementation (Elias et al., 1997). However, there has been little research to examine this question (Bryk & Schneider, 2002). Positive interpersonal relations among

school staff may have a robust effect on the quality of implementation as well (Domitrovich, Cortes, & Greenberg, 2005). Thus, the social and emotional competencies of the adults in the school environment may play a pivotal role in the quality of implementation.

Teachers are rarely given sufficient preparation and ongoing support to develop the necessary skills and attitudes to successfully implement SEL programming (Elias, 2003). The guidance provided to educators to implement SEL programming is typically limited to explanation of the important constructs and information about how to teach them to students (Zins, Travis, & Freppon, 1997). Given that SEL programming is scaling up in response to state mandates (now in Illinois and New York), addressing teacher SEC becomes imperative to promote successful program implementation on a large scale, as well as to reduce teacher burnout, rising health care costs, and so on.

Next, we examine evidence that links effective classroom management to classroom and student outcomes and explores how teachers' SEC may contribute to their ability to effectively manage their class.

Effective classroom management skills. In response to educational research and the resulting change in the views of the nature of students' learning, there has been a move toward a more authoritative and proactive approach to classroom management. This approach encourages prosocial and cooperative behaviors through establishing warm and supportive relationships and communities, assertive limit-setting and guidance, and preventative strategies rather than controlling negative behaviors through coercive measures such as punishment (Angell, 1991; Bredekamp & Copple, 1997; Brophy, 2006; DeVries & Zan, 1994; Ginott, 1993; Glasser, 1988, 1998a; Kohn, 1996; Levin & Nolan, 2006; Marzano et al., 2003; Noddings, 2005; Osher et al., 2007; Watson, 2003; Watson & Battistich, 2006). In addition, there is evidence that these approaches promote students' commitment to school, academic engagement, and achievement among elementary schools (Solomon et al., 2000), middle schools (Goodenow, 1993), and high schools (Bryk & Driscoll, 1988).

This new perspective stresses the importance of self-regulation among both teachers and students for the creation of an environment where students behave out of a sense of shared responsibility for a healthy learning environment rather than to avoid punishment or earn rewards (Weinstein, 1999; Woolfolk Hoy & Weinstein, 2006). New models that integrate positive behavioral support and SEL are beginning to demonstrate effectiveness in reducing problem behaviors among elementary, middle, and high school students (Osher et al., 2007).

Although this new perspective has no shortage of rich theoretical frameworks, it lacks empirical support. Descriptive presentations of potential are offered with little prescriptive direction. Woolfolk Hoy and Weinstein (2006) suggest, "We need systematic inquiry into how teachers establish and maintain positive, caring relationships with students, foster autonomy and self-regulation, and build community" (p. 211).

Given the newness of this orientation to classroom management and the shortage of empirical findings, it is not surprising that little research has directly addressed teacher SEC and classroom management. However, some important findings from earlier classroom management research, the SEL intervention literature, and the psychological literature on emotion suggest that teachers' SEC supports

their classroom management efforts and may in fact be an essential component linking this new orientation toward classroom management, healthy classroom climate, and positive student outcomes.

The 1970s saw the first federally funded, large-scale research to identify the teacher behaviors most related to desired student outcomes. As a result of this research, the emphasis in classroom management shifted "from a paradigm that emphasizes the creation and application of rules to regulate student behavior to one that also attends to students' needs for nurturing relationships and opportunities for self-regulation" (Weinstein, 1999, p. 151).

Weinstein (1999) further articulates this paradigm shift as involving four major changes in approach all requiring various dimensions of teacher SEC. Weinstein's first change is "from management as a 'bag of tricks' that can be acquired in a two-hour 'in-service' to management as a body of knowledge and a set of practices that require thoughtful decision making and reflection" (p. 152). This change implies the need for SEC dimensions of self-awareness, awareness of others, and the ability to make responsible decisions.

The second change is "from managerial practices designed to obtain compliance to practices that foster students' capacity for self-regulation" (Weinstein, 1999, p. 152). This change also implies the need for SEC dimensions of self- and other-awareness as well as the ability to self-regulate and to help others self-regulate through guidance and example. Helping students self-regulate (rather than imposing rules) requires a high degree of awareness, sensitivity, and thoughtful decision making to observe, understand, and respond respectfully and effectively to individual student behaviors.

The third shift "from a purely cognitive perspective that emphasizes the importance of developing and teaching rules to a combined cognitive-affective perspective that also recognizes the need to establish caring, trusting relationships between students and teachers and among students" (Weinstein, 1999, p. 152) is yet another example that necessitates teacher SEC. Teachers high in SEC know how to build strong and supportive relationships through mutual understanding and cooperation and can effectively negotiate solutions to conflict situations.

Finally, the fourth change, "from management strategies that support a view of classrooms as places for routinized, teacher-directed work to management strategies that are consistent with a view of classrooms as places for active, student-centered learning" (Weinstein, 1999, p. 152), also necessitates teacher SEC. Teachers high in SEC know their boundaries and can assertively set limits firmly yet respectfully, but they also are comfortable with a level of ambiguity and chaos that comes from letting students figure things out for themselves.

Thus, it can be argued that this major paradigm shift has necessitated a greater degree of teacher SEC than was essential for classroom management in the past. This shift was presaged by the work of Kounin (1977), who was curious as to why some teachers were able to maintain a high degree of on-task behavior when compared with others. He discovered a construct he identified as "withitness" 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 (i.e., SEC).

In his study of 80 first- and second-grade classes each containing at least one emotionally disturbed child he found that teachers identified as "withit" were able to notice subtle changes in students' emotions and behavior and respond proactively by letting students know they were aware, by matter-of-factly reminding

them of the task at hand and offering a running commentary to monitor the class's progress (Kounin, 1970). This finding suggests that the SEC dimensions of social awareness, self-management, and relationship management may help teachers maintain attentive monitoring and responsiveness, which prevents disruptive behavior and supports student on-task behavior.

Indeed, in a meta-analysis of more than 100 studies of classroom management, "mental set" was found to have the largest effect ($d = -1.3$) on reductions in disruptive behavior (Marzano et al., 2003). The construct of mental set is similar to Langer's (1997) construct of "mindfulness" involving "a heightened sense of situational awareness and a conscious control over one's thoughts and behavior relative to that situation" (Marzano et al., 2003, p. 65). In contrast, "mindlessness" is a state of "automatic pilot" where one operates with little conscious awareness. Mental set also includes emotional objectivity (related to the SEC dimension of self-management). Teachers who remain cool under pressure addressing disciplinary issues in a "matter-of-fact" way without taking behaviors personally are most effective classroom managers.

When teachers foster a sense of community in their classrooms, students exhibit a more prosocial orientation (cooperative, helpful, concern for others), resulting in fewer disruptive behaviors (Battistich, Solomon, Watson, & Schaps, 1997). The ongoing research to study the effectiveness of the CSC provides longitudinal evidence. CSC is an intervention program designed to enhance prosocial development through providing students opportunities to collaborate with and help others, reflect on the experiences and needs of others to promote empathy and perspective taking, reflect on their own and others' behavior as it relates to fundamental prosocial values, develop and practice social competencies, and learn to participate in joint decision making with regard to classroom rules and guidelines. The program is based on the assumption that students have a basic need to belong to and contribute to a community—"a cohesive, caring group with a shared purpose" (p. 138)—and when this need is satisfied, students become bonded with the school community, and they are inclined to behave in accordance with the school's values reducing the need for the external control of adults.

Battistich et al. (1997) examined the effects of the CSC program in a longitudinal study of 24 diverse elementary schools in six school districts across the United States (total of 550–600 classrooms). Two schools from each district were assigned to the experimental condition, whereas the other two were chosen as matching comparison schools. Treatment and comparison schools were assessed at baseline prior to the program introduction in the fall of 1992 and annually over a 3-year period. Assessments included 90-min classroom observations conducted four times each school year. Questionnaires were administered annually to teachers and students to assess their impressions of school climate and sense of community.

Results showed that the training and use of CSC practices led to an increase in teacher warmth and supportiveness, emphasis on prosocial values, encouragement of cooperation, elicitation of student thinking and expression of ideas, and extrinsic control among CSC teachers compared with those of the comparison teachers. Among CSC classrooms, an increase in these practices resulted in improvements in students' self-reported academic engagement, sense of influence, and positive interpersonal behavior and that these student behaviors promoted students' sense of community, which was associated with school liking, enjoyment of class, learning

motivation, concern for others, conflict resolution skills, democratic values, sense of efficacy, and altruistic behavior. Many of these relationships remained significant when controlling for school poverty level (Battistich, Solomon, Kim, Watson, & Schaps, 1995). Indeed, the data suggest that such teacher practices may create a classroom atmosphere that is protective despite the negative effects of poverty on academic performance.

A follow-up study examining a subsample of 1,246 (700 CSC and 546 comparison) middle school students found continuing positive effects, especially among those from the elementary schools identified as having a high level of implementation quality as assessed by classroom observation and teachers' self-reported attitudes toward students (Battistich et al., 1997; Solomon et al., 2000). These data establish that building a sense of community in schools reduces student problem behaviors. Although community building may reduce the need for explicit teacher-directed behavior management interventions, we argue that it requires a high degree of SEC on the part of the teacher (Solomon et al., 1997).

Supporting the paradigm shift in classroom management was the development of self-determination theory (Deci & Ryan, 1985, 2000; Ryan & Deci, 2000), which proposes that the pursuit of extrinsic goals, such as rewards and honors, is associated with poorer mental health than the pursuit of intrinsic goals, such as relationships and community.

In a series of studies focused on learning, Vansteenkiste, Simons, Lens, Sheldon, and Deci (2004) tested the hypothesis that intrinsic (vs. extrinsic) goals and autonomy-supportive (vs. controlling) learning climate would advance students' learning, performance, and persistence. Whereas all three studies confirmed their hypothesis, we focus on the last because it involved high school students (as opposed to adult learners).

The third study tested the hypothesis with a group of 224 Belgian 10th- and 11th-grade students in an educational setting. The students were taught Tai-bo exercises during physical education class and were randomly assigned to one of four conditions across two dimensions: motivation and learning climate. The motivation dimension involved assignment to either the intrinsic goal condition (prompting that Tai-bo would improve their health) or the extrinsic goal condition (prompting that Tai-bo would improve their physical attractiveness). The motivation dimensions were crossed with two learning climate dimensions that involved assignment to either the autonomy-supportive assignment or the controlling context assignment. These were prompted by the wording of directions that were either very directive (e.g., "you should," "you have to," "you must") versus more autonomous-supportive directions (e.g., "you can," "you might," "if you choose").

Students who were assigned to the intrinsic goal rather than the extrinsic goal condition and the autonomy-supportive rather than controlling condition were found to be more autonomously motivated, demonstrated better performance, and were more persistent. Examining interaction effects, the authors found a positive interaction for intrinsic goal and autonomy-supportive learning climate for autonomous motivation and for test performance but not persistence.

This study from the psychological literature supports the classroom management paradigm shift described above, suggesting the importance of promoting intrinsic goals and autonomous learning climates. Furthermore, effective teachers encourage engaged student learning by generating enthusiasm and passion for the

curriculum (Fried, 1995). We hypothesize that these important dimensions of a learning environment require greater teacher SEC to promote than do the promotion of extrinsic goals and controlling learning climates. Rather than simply creating rules and either offering punishments or rewards for compliance or noncompliance, teachers must establish relationships that promote each student's discovery of the intrinsic reward for learning and create responsive environments that allow autonomy and cooperative learning.

We have examined how teachers who lack SEC may experience emotional stress and burnout and the negative effects this has on teacher–student relationships and classroom management. We also reviewed findings that demonstrate the complex interactions among the various facets of our model that make a contribution to a prosocial classroom climate. We also examined how dimensions of teacher SEC are related to SEL program implementation quality and classroom management. The findings reviewed above provide compelling evidence for the need for intervention strategies to help teachers develop SEC to avoid teacher burnout and to enhance effectiveness. Next, we discuss several possible intervention strategies to promote teacher SEC.

Promoting Teacher SEC and Well-Being

Decades of research have generated a knowledge base that can be used to promote teachers' social and emotional awareness and to aid in the development of these competencies (Eisenberg, 2003; Ekman, 2004a). However, until recently, neither teacher preservice nor in-service programs have used this rich source of material to help promote these social–emotional processes in teachers.

Emotional Intelligence Training

There are several training programs in the developmental stages that may facilitate the development of SEC among teachers. Although most SEL programs do not address teacher SEC in their teacher training, the Emotionally Intelligent Classroom (Brackett & Katulak, 2006) program is an exception. The Emotionally Intelligent Teacher training (Brackett & Caruso, 2006) was designed to promote teachers' emotion-related skills and emotional awareness and application of these skills and awareness in the school environment as support for the SEL program for students. The training covers three major areas: recognizing and labeling emotions, understanding emotion, and expressing and regulating emotion in response to situations commonly encountered by teachers in classroom situations. For example, during the section covering understanding emotion, the training introduces teachers to information about how emotions can affect learning; for instance, positive emotions such as joy and excitement can foster creativity, whereas anxiety can impair memory and the ability to perform certain tasks. Although research has documented significant changes in student outcomes resulting from the overall program, no data have been published that links teacher SEC to classroom and student outcomes.

Mindfulness-Based Interventions

Another approach to reducing stress and promoting well-being, emotional awareness/regulation, and prosocial behavior is through practicing mindfulness or contemplative practices (Brown, Ryan, & Creswell, 2007; Carmody & Baer, 2008;

Eisenberg, 2002; Kabat-Zinn et al., 1992; Lutz, Brefczynski-Lewis, Johnstone, & Davidson 2008a; Lutz, Slagter, Dunne, & Davidson, 2008b; Ortner, Sachne, & Zelazo, 2007). Research indicates that contemplation and mindfulness practices increase awareness of one's internal experience and promote reflection, self-regulation, and caring for others. Ekman (2004a) and the 14th Dalai Lama (Dalai Lama & Ekman, 2008) have proposed that during meditation, the focus on automatic biological events such as the breath may promote the ability to be more aware of automatic emotional reactivity, promoting the ability to have greater control over one's responses. This ability, they argue, promotes psychological balance and compassion.

Research is beginning to support this premise. For example, regular contemplative practice enhances mental health and increases the ability to regulate distress (Ramel, Goldin, Carmona, & McQuaid, 2004; Shapiro, Schwartz, & Bonner, 1998). Individuals who can manage their distress when exposed to a person who is suffering are more likely to show empathy and compassion and do something to reduce suffering (Eisenberg et al., 1989). Contemplative practice may facilitate emotional self-awareness (Brown & Ryan, 2003) and contribute to engagement or "psychological presence," defined as "feeling open to oneself and others, connected to work and others, complete rather than fragmented, and within rather than without the boundaries of a given role" (Kahn, 1992, p. 322). Thus, mindfulness practices may promote cognitive and emotional regulation by supporting the ability to reflect on one's internal and external experience from a broader perspective that provides a wider variety of interpretations of and responses to stressful situations (Zelazo & Cunningham, 2007). As a result, mindfulness-based interventions may be ideally suited to support the development of a mental set that is associated with effective classroom management. Mindfulness training may help teachers reduce stress. A study of 21 secondary school student teachers found that mindfulness training reduced stress symptoms (Winzelberg & Luskin, 1999). Half the teachers participated in four 45-minute sessions where they learned a mindfulness practice involving focused attention and other mindfulness strategies that could be used throughout the day to reduce stress. Compared to the control group, intervention group teachers reported significant reductions in emotional, behavioral, and gastronomic stress symptoms as measured by the Teacher Stress Inventory (TSI; Pettigrew & Wolf, 1982).

A promising strategy combines emotion awareness training and mindfulness practices. Kemeny et al. (2008) report findings on the Cultivating Emotional Balance training, an innovative combination that uses Ekman's Emotion Awareness Training system for teaching emotion awareness (Ekman, 2004b; Ekman & Friesen, 1978) and secularized mindfulness training. This hybrid training model consisted of an 8-week, 42-hr training program designed to reduce "destructive enactment of the emotions" and enhance empathy and compassion. It was tested on a sample of 82 female teachers (pre-K–12) using a randomized, controlled trial design. Results at both posttest and 5-month follow-up indicated that the training significantly reduced self-reported depression and rumination and increased emotional self-awareness. In addition, in an experimental task, intervention teachers showed an increase in compassionate responding to suffering when compared with the comparison teachers.

Pilot data from this same trial on a subsample of classrooms suggests that the changes in teacher SEC may translate into improved classroom climate (Jennings,

2007). Observers blind to the experimental condition rated the classrooms of a subsample of 21 teachers (13 experimental group, 8 control group) using two standardized observational measures of classroom climate (La Paro & Pianta, 2003; Solomon et al., 1988). As predicted, the intervention group classrooms scored higher on most dimensions of classroom climate when compared with those of the waitlist control group, which suggests that the psychological changes observed in the intervention teachers translated into improved classroom climate.

Enhancing Commitment to Teaching

Other promising programs worth noting focus on the development of the "inner lives" of teachers. These programs focus on supporting the personal development of teachers and other educational professionals. *Courage to Teach*, developed by Parker Palmer (1998), involves participation in 3-day quarterly retreats for a year intended to help teachers develop more trusting and caring relationships with colleagues and students and to explore the connection between attending to the inner life of educators and the renewal of public education (Center for Courage & Renewal, n.d.). The Inner Resilience Program (formerly Project Renewal; Lantieri, Nambiar, & Chavez-Reilly, 2006) was developed to help New York City "ground zero" teachers cope with the trauma of 9/11. It aims to provide teachers with skills, tools, and strategies to strengthen resiliency in the face of grief and trauma and to model these skills for their students. The training includes residential and day-long retreats, after-school workshops and institutes, technical assistance and training, individual stress-reduction sessions, and yoga classes. Although only anecdotal evidence supports either of these models, with support from the Fetzer Institute, both of these teacher renewal models are currently undergoing randomized trials to examine efficacy.

Training in Student Social and Emotional Development

Teachers rarely receive and are not required to take courses on social and emotional development in childhood as part of their teacher training. However, we hypothesize that teachers need this knowledge to better understand the developmental process of SEC and the needs of students at different ages, to develop effective and caring classroom management, and to better understand the relations between emotion, cognition, and behavior. For example, young children often have difficulty regulating their emotional responses. A young student with emotion regulation difficulties may exhibit challenging classroom behavior. Rather than reprimanding a student for such behavior, a well-informed teacher might find ways to help the student self-regulate. To do this, the teacher must understand how emotion regulation develops and how to support its development.

To our knowledge, there are no preservice or in-service training programs that focus on improving teachers' knowledge and skills regarding students' social and emotional development that have been carefully evaluated to examine their effects on teacher and classroom functioning. However, a recent study examining the effect of Montessori schooling found that urban minority students randomly assigned by lottery to a Montessori public school demonstrated significantly superior social, emotional, and cognitive development when compared with students randomly assigned by lottery to regular public school programs. These results suggest

that the Montessori curriculum and teacher training may be one effective model for supporting teachers' understanding of social and emotional development and their ability to apply this knowledge to helping students self-regulate (Lillard & Else-Quest, 2005).

As reviewed above, many types of training and support have sound theoretical models for improving teacher SEC and student outcomes. These range from changes in preservice training focused on social and emotional development and classroom management to in-service models of stress reduction, mindfulness, explicit teaching of emotional awareness, and the deeper development of teachers' inner lives. Indeed, some have argued that psychology, particularly an understanding of social and emotional developmental issues, should have a more prominent role in standardized teacher training curriculum (Poulou, 2005).

Agenda for Future Research

Research has demonstrated evidence of relationships among various components of our proposed prosocial classroom model. Supportive teacher–student relationships and effective classroom management are related to healthy classroom climate. Healthy classroom climate is associated with positive social, emotional, and academic student outcomes (La Paro & Pianta, 2003; NICHD Early Child Care Research Network, 2002, 2003; Pianta, 1999, 2003; Pianta et al., 2002, 2003). In addition, there is evidence that teacher characteristics and principal and contextual support play a critical role in SEL program implementation quality and student outcomes (Battistich et al., 2000; Conduct Problems Prevention Research Group, 1999; Dane & Schneider, 1998; Domitrovich & Greenberg, 2000; Kam, Greenberg, & Walls, 2003; Solomon et al., 1997, 2000).

Although these results support hypothesized relationships proposed in our model, there are several areas that need further research that might employ multiple methods including the use of case studies, longitudinal, observational studies, and more extensive randomized controlled trials. It should be noted that many of the constructs delineated in our model have well-validated measures that can be used to test the model. These include measures of teacher stress, teacher burnout, the quality of student–teacher relationships, classroom management, classroom atmosphere, the quality of implementation of SEL programs, and student cognitive and social–emotional outcomes. The dimensions of SEC may pose a significant measurement challenge. Teacher self-report is susceptible to social desirability biases, and as mentioned earlier, these dimensions may be highly context dependent. Therefore, observational measures may need to be developed to determine a teacher's level of SEC within the context of their classroom environment.

Research Questions

Several research questions need to be addressed to assess the value of the proposed model. The first can be addressed with descriptive/longitudinal studies and case studies to examine relationships not already established in the literature. The second will require the development of interventions using randomized, controlled trials to evaluate their efficacy.

Longitudinal studies. Most of the studies reported herein have used cross-sectional data to examine the relationship between teacher stress and burnout and teacher

functioning (teacher–student relations, classroom management) or how teacher functioning is related to classroom atmosphere or student outcomes. There has been a paucity of longitudinal studies, and those that have been reported have only examined parts of the prosocial classroom model.

A question that has received little attention is whether there is a relationship between teacher SEC and teacher functioning (teacher–student relationships, classroom management, SEL program implementation). A variety of dimensions of teacher SEC might be studied including measures of teachers' emotional awareness and emotional knowledge (J. D. Mayer & Salovey, 1997; Salovey & Grewal, 2005), emotion recognition, measurement of aspects of personality (sociability, social insight, empathy, prosocial responding), as well as both self-report and physiological measures of stress and stress response.

A second step is to demonstrate that these factors are related to observational measures and student reports of classroom climate. Furthermore, through the use of longitudinal multivariate models (structural and growth curve models), both the direct and indirect pathways between teacher SEC, teacher functioning, classroom atmosphere, and student outcomes can be tested. These analyses will need to control for demographic variables, years of teaching, level of function of the student population, and so on and contextual factors such as grade level, type of school or educational setting, cultural background of students and teachers, and so on. It also would be of interest to examine health care utilization, health care costs, and attrition given they are important outcomes for teachers as well as educational policies and financing.

Testing interventions. Although tests of structural models can illuminate relationships among variables, only through the manipulation of aspects of the model can true causal relationships be established. Therefore, the second line of research we propose involves randomized controlled trials to address a series of questions: (a) Can interventions be developed to improve SEC? (b) Do these interventions result in reduced teacher stress and burnout and increased well-being? (c) Do these interventions result in improvements in teacher–student relationships, classroom management, SEL program implementation quality, classroom climate? (d) Do these interventions improve student academic outcomes and well-being?

Randomized controlled studies pose numerous challenges in educational settings, including sampling variability, number and choice of units of analysis, treatment-related attrition, and heterogeneity of implementation quality (Campbell & Stanley, 1966). A discussion of these issues is beyond the scope of this article; however, they must be fully considered during the planning phase of the research.

Randomized controlled studies of training interventions involve several steps. First, a theoretically sound intervention is developed and piloted with teachers within a school context to determine whether the training is feasible and acceptable and to collect preliminary qualitative and evaluative data to test the measurement protocol. Teacher participants are recruited, assessed, and then participate in the training. After the training, they are assessed again. Analyses are conducted comparing data collected from the two time periods to determine change. If the variables of interest show improvement, measurement integrity and training effectiveness are suggested, although these data do not confirm causality. Often, a

number of pilot studies are necessary to refine the training, recruitment, and retention of participants and the measurement protocol.

The final step involves the full randomized controlled trial. Participants are recruited, assessed, and randomly assigned to various conditions, usually at the classroom or school level. Often, early stage trials involve two conditions: an experimental condition and a control or waitlist condition. Findings compare the effects of receiving the training with no training. The final stage of the process may involve an active control condition. Rather than providing no intervention to half of the participants, they instead receive alternative training to test the effects of attention or to test what might be the active component of the target intervention.

We hypothesize that effective teacher SEC training when combined with high-quality SEL curriculum in the classroom will show a synergistic effect. Thus, future studies might compare four conditions: SEC training alone, SEL curriculum training alone, SEC + SEL training, and no training. An effective intervention must focus on ways to promote teacher SEC.

Conclusion

We have proposed a model of the prosocial classroom that highlights the importance of teachers' SEC and well-being in developing and maintaining supportive teacher–student relationships, effectively managing their classrooms, and implementing SEL programs effectively.

Teacher SEC also has implications for school reform. Social trust within a school community is a key resource for improving schools (Bryk & Driscoll, 1988; Bryk & Schneider, 2003). Many school reformers argue—and research supports this view—that students learn better when they are happy, respected, and feel cared for (Noddings, 2005), feel bonded to school, trust the people at school have their best interests at heart (Bryk & Schneider, 2002), and have high levels of self-efficacy (Dweck, 2006; Glasser, 1998b). Although these social and emotional factors have been identified as being associated with positive academic outcomes, little research has examined how teachers' SEC may promote these factors and subsequent student outcomes.

Research has demonstrated that many teachers deal with highly stressful emotional situations in ways that compromise their ability to develop and sustain healthy relationships with their students, effectively manage their classrooms, and support student learning. We propose that attention be directed to a research agenda that explores the links in this model. Finally, we propose the testing of a variety of possible interventions that may have the potential to promote teacher SEC.

It will be important to explore whether these interventions can result in improvements in SEC and whether these improvements result in positive classroom and student outcomes. The lives of teachers and their concerns with personal and professional improvement have long been put on the "back burner" of educational policy and research. If we are to improve the conditions of schooling, support the caring and commitment of teachers, and improve the academic and social–emotional growth of students, these critical research, policy, and practice questions demand greater attention.

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