

## ABSTRACT

HOLLAND, MARGARET ANDREWS. Teacher Social-Emotional Competence and Well-being in Head Start Classrooms: Understanding the Impact of Intervention Coaching. (Under the direction of Dr. Kate E. Norwalk).

Early childhood is a crucial time to support the social-emotional development of children, particularly those from lower socioeconomic backgrounds who may have limited access to resources that support their social-emotional development (Evans & Kim, 2013; McFarland, 2017). One way in which preschool teachers can support these students is through the implementation of social-emotional learning (SEL) interventions that aid in the development of important skills in self-regulation, social-awareness, positive peer relations, emotional literacy, and social problem solving (Collaborative for Academic, Social, and Emotional Learning, 2017). According to Jennings and Greenberg's (2009) prosocial classroom model, teachers' ability to implement SEL interventions with fidelity depends on their own social-emotional competence (SEC) (i.e., self-awareness, and ability to manage relationships) which supports their well-being; unfortunately, occupational burnout and psychological distress are prevalent among preschool teachers due to demanding work conditions, which may hinder successful SEL intervention implementation (Wehby, Maggin, Partin, & Robertson, 2012). Intervention coaching may serve as a protective factor against burnout and psychological distress and, in turn, support implementation fidelity among preschool teachers. However, it is not well understood which components of intervention coaching (e.g., performance feedback, support of intervention understanding, coach-teacher alliance) are most important to promote social-emotional competence among preschool teachers. Thus, the current study sought to examine if various components of intervention coaching support teacher SEC to prevent teacher burnout and psychological distress in a nationally representative sample of Head Start classrooms. The

analytic sample included 308 lead teachers of Head Start classrooms and 52 intervention coaches. Structural Equation Modeling (SEM) was used to test two different path models that explored the hypothesized pathways. None of the pathways in either of the models were statistically significant, and neither of the models demonstrated acceptable fit. Thus, a series of regression analyses explored how the different aspects of coaching quality (i.e., quality of session, coach-teacher alliance, and coach support of implementation) might predict levels of teacher burnout, teacher psychological distress, and teacher SEC. It was found that coach-teacher alliance was a negative and statistically significant predictor of teacher burnout. A series of repeated measures ANOVA were then used to explore possible differences in teacher SEC and teacher well-being (i.e., distress and burnout) across SEL intervention conditions (Incredible Years, Preschool PATHS, and Tools of the Mind) and the control condition. These analyses revealed that teachers in the Preschool PATHS condition were observed to have significantly higher levels of teacher SEC overall and a significantly higher increase over time when compared to teachers in the other SEL intervention conditions.

Keywords: teacher social-emotional competence, teacher well-being, intervention coaching, early childhood, implementation fidelity

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Teacher Social-Emotional Competence and Well-being in Head Start Classrooms:  
Understanding the Impact of Intervention Coaching

by  
Margaret Andrews Holland

A dissertation submitted to the Graduate Faculty of  
North Carolina State University  
in partial fulfillment of the  
requirements for the degree of  
Doctor of Philosophy

Psychology

Raleigh, North Carolina  
2021

APPROVED BY:

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Dr. Kate E Norwalk  
Committee Chair

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Dr. Mary E. Haskett

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Dr. Scott A. Stage

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Dr. DeLeon L. Gray

## DEDICATION

This dissertation is dedicated in memory of Margaret Palmer Vann, my great-grandmother, of whom I am her namesake. Mrs. Vann was a special education teacher beginning in 1968, an adjunct instructor for multiple colleges and universities, and later became the Director of Special Education for Huntsville City Schools, Decatur City Schools, and Morgan County Schools until her retirement in 1982. Throughout her life, she was incredibly active both in membership and leadership in a number of civic and professional organizations that supported the dignity and thriving of those with disabilities and gifted talented children in the city of Decatur and throughout North Alabama. Mrs. Vann was presented with the Council for Exceptional Children Coordinator award for her service in 1982. In the following year, the Alabama Federation Council for Exceptional Children established the Margaret Vann Award for Outstanding Special Education Coordinator in Alabama in honor of her leadership throughout the state of Alabama during a seminal period in the field of special education. The Heron Great Tree Gateway by Bruce Larsen at Delano Park in Decatur, Alabama was given in memory of her life and service. I am honored and immensely grateful for the love she gave me throughout my childhood and adolescence and her legacy that informs my work.

## **BIOGRAPHY**

Margaret “Maggie” Andrews Holland was born April 22, 1993 at Helen Keller Hospital in Sheffield, Alabama near Muscle Shoals. She then primarily grew up in various suburbs surrounding Birmingham, Alabama. Maggie graduated from Pelham High School in May of 2011 and went on to obtain a Bachelor’s degree in Psychology with minors in Human Development and Family Studies and Liberal Arts from the University of Alabama in May of 2015. Following her graduation from the University of Alabama, Maggie immediately began her graduate career at North Carolina State University. Maggie will begin a year-long American Psychological Association (APA) accredited predoctoral psychology internship with the Florida State University Multidisciplinary Evaluation and Consulting Center in August of 2020 and will graduate with a Ph.D. in School Psychology in 2021.

## ACKNOWLEDGMENTS

The following dissertation would not be produced without the love and support of North Carolina State University faculty, practica supervisors throughout the great state of North Carolina, and my family and friends in North Carolina and beyond. I would like to particularly thank my advisor, Dr. Kate Norwalk, my committee, and my immediate family who have provided consistent and needed guidance throughout these five years. I have been deeply fortunate to come in contact with relationships, both personal and professional, in various seasons in my graduate career that have pushed me to challenge myself in ways that I have truly led to my flourishing not only as a future school psychologist but also as an integrated human being. There are so many I hold in my heart with immense gratitude that met me where I was at each point in my graduate journey with so much kindness and compassion. Thank you to each of you! I genuinely hope to extend the same intentional kindness and compassion to the children and families I am so thrilled and honored to support in the next stage of my professional career.

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## **Introduction**

Early childhood is a crucial period to support the social-emotional development of children. Children who experience behavioral difficulties in preschool are at an increased risk for school dropout, substance abuse, peer rejection, violence, and delinquency later in life (Qi & Kaiser, 2003). Due to a number of poverty-related risk factors, preschool students from low socioeconomic backgrounds, such as those attending Head Start, are more likely to experience social-emotional deficits (Evans & Kim, 2013; McFarland, 2017). The prevalence of behavioral difficulties prior to kindergarten, and the importance of supporting children's social-emotional development, suggests that preschool teachers may be critical sources of support for students in Head Start classrooms. One way in which preschool teachers can support students from lower socioeconomic backgrounds is through the implementation of social-emotional learning (SEL) interventions that aid in the development of important skills in self-regulation, social-awareness, positive peer relations, emotional literacy, and social problem solving (Collaborative for Academic, Social, and Emotional Learning, 2017).

In order for SEL interventions to be most effective, they should be implemented with fidelity (O'Donnell, 2008). According to Jennings and Greenberg's (2009) prosocial classroom model (See Figure 1), successful implementation of SEL programs with fidelity is dependent on teachers' own social-emotional competence (SEC), which includes self-awareness of one's emotions, an understanding of how emotional expressions might impact others, cultural sensitivity, prosocial decision-making, effective emotion regulation, and the ability to accept that students can learn from problem-solving situations themselves. Teachers high in SEC are more likely to maintain positive relationships with their students, effectively manage their classrooms, maintain healthy classroom climates, and experience psychological well-being (Jennings &

Greenberg, 2009). Conversely, when teachers do not have adequate SEC to manage challenges in their classrooms, teachers are likely to experience emotional stress which, over time, can contribute to occupational burnout (Jennings & Greenberg, 2009). Despite the importance of teacher SEC to implementation fidelity, teachers are rarely given adequate training or support to develop and maintain their own SEC (Jennings et al., 2017).

Intervention coaching is a type of professional development and implementation support that has shown promise as a protective factor against burnout and psychological distress in teachers, while also supporting implementation fidelity for a variety of interventions (Kretlow & Bartholomew, 2010; Reinke, Stormont, Herman, & Newcomer, 2014; Ransford, Greenberg, Domitrovich, Small, & Jacobson, 2009; Reinke, Webster-Stratton, Newcomer, & Herman, 2012; Wehby, Maggin, Partin, & Robertson, 2012). To date, no studies have examined intervention coaching as a method for promoting or improving teacher SEC. Thus, the current study seeks to examine how various components of intervention coaching (e.g., performance feedback, support of intervention understanding, coach-teacher alliance) impact teacher SEC, and in turn, teacher psychological distress and burnout, in Head Start preschool classrooms.

### **The Impact of Poverty in Early Childhood**

The negative impacts of poverty on early childhood development are well documented (Evans & Kim, 2013; Hair, Hanson, Wolfe, & Pollak, 2015; Walker et al., 2011; Watamura, Phillips, Morrissey, McCartney, & Bub, 2011). Young children experiencing poverty are at an increased risk of living in poor quality home environments, experiencing maladaptive parenting practices, attending lower quality schools, and having parents who suffer from psychological distress, all of which can contribute to negative social-emotional outcomes (David, Gelberg, & Suchman, 2012; Herbers, Cutuli, Supkoff, Narayan, & Masten, 2014; Watamura et al., 2011;

Yoshikawa, Aber, Beardslee, 2012). Childhood poverty can also promote chronic stress which can inhibit the development of effective self-regulatory strategies that support prosocial behaviors among peers and pre-academic skill development (Evans & Kim, 2013; Herbers et al., 2014; Ponitz, McClelland, Matthews, & Morrison, 2009; Rhoades, Greenberg, & Domitrovich, 2009). Behavioral difficulties in preschool can have lasting impacts on adolescent outcomes including poor mental health, risky sexual behaviors, and substance abuse (Bornstein, Hahn, & Hayes, 2010; Thompson et al., 2011; Timmermans, Van Lier, & Koot, 2008).

Despite the increased risk that poverty has on early childhood development, a sizable portion of children from disadvantaged backgrounds still experience positive outcomes (Cutuli & Herbers, 2014; Masten, Herbers, Hinz, Obradovic, & Wenzel, 2014; Obradovic, 2010). High quality preschool experiences have been found to act as a protective factor for young children experiencing poverty (Watanabe et al., 2011), prompting the enactment of federal policy and legislation focused on the promotion of high quality, publicly funded preschool programs, including Head Start (U.S. Department of Education, 2015). Head Start is a large federal program that seeks to promote school readiness in children from low-income families, ages birth to five years, with the preschool component of Head Start specifically supporting children ages three to four years in a variety of preschool settings (Office of Head Start, 2017). Teachers within preschool programs, like Head Start, have the potential to cultivate nurturing and supportive environments that promote the social-emotional development of young children from disadvantaged backgrounds (Denham, Bassett, & Zinsler, 2012; Jennings & Greenberg, 2009).

### **The Role of Teachers in Social-Emotional Development**

Preschool teachers have a significant impact on the social-emotional development of their students (Denham et al., 2012). Teachers who cultivate warm, responsive, and supportive

relationships with their young students may impact the development of social-emotional skills throughout schooling (Burchinal et al., 2008; Buyse, Verschueren, Doumen, Van Damme, & Maes, 2008; Hutchings, Martin-Forbes, Daley, Williams, 2013; Jerome, Hamre, & Pianta, 2009; Rudasill & Rimm-Kaufman, 2009). In addition to parents or other family members, preschool teachers can serve as an extensive and important source of information as a preschool student develops social-emotional skills and knowledge (Denham et al., 2012). Specifically, preschool teachers can impact the social-emotional development of their students through a variety of classroom strategies including modeling effective emotion regulation, scaffolding social problem-solving, and emotion labeling (Jennings & Greenberg 2009). Furthermore, research examining parental emotion regulation modeling suggests that children mirror the emotion regulation of the adults closest to them, suggesting that teachers are likely an important model for effective emotion regulation for their students (Denham et al., 2012). Thus, it is important that a preschool teacher have a level of competency in their own social-emotional skills as they support the social-emotional development of their students (Jennings & Greenberg, 2009).

### **Teacher Social-emotional Competence**

Preschool teachers' own SEC is critical to their ability to support the social-emotional development of students in their classrooms. SEC in teachers contains the following components: self-awareness, social awareness, responsible decision making, self-management, and relationship management (Zins, Weissberg, Wang, & Walberg, 2004). Teachers who have high levels of SEC are aware of their own emotional state and its impact on their students and those they work with; they allow the cultural backgrounds of their students to inform their teaching and classroom management; they make decisions that will benefit their students and those they work with; they are able to effectively regulate their emotions when classroom

stressors arise; and they encourage and support social problem-solving amongst their students (Jennings & Greenberg, 2009). These competencies, in turn, make teachers better equipped to cope with daily stressors in the classroom, thus improving their overall psychological well-being and serving as a protective factor against occupational burnout (Jennings & Greenberg, 2009; Swartz & McElwain, 2012).

The hypothesized mechanisms by which teacher SEC affects a student's social-emotional outcomes are highlighted in Jennings & Greenberg's (2009) prosocial classroom model (see Figure 1). First, socially and emotionally competent teachers are more likely to build warm and supportive relationships with their students, which has been extensively linked to positive social and behavioral outcomes in students (Burchinal et al., 2008; Decker, Dona, & Christenson, 2007; Rucinski, Brown, & Downer, 2018). Second, teachers who have higher levels of SEC are more likely to utilize positive and proactive classroom management strategies that increase prosocial behaviors and classroom engagement, and decrease disruptive behaviors in the classroom (Carter & Van Norman, 2010; Hutchings, Martin-Forbes, Daley, & Williams, 2013; Jones et al., 2014; Oliver, Wehby, & Reschly, 2011). Finally, teacher SEC is hypothesized to increase the quality with which teachers implement SEL interventions in preschool settings. In turn, these mediating variables (i.e., warm teacher-student relationships, effective classroom management, and quality implementation of SEL interventions) interact to create a classroom climate that is conducive to optimal student social and emotional development.

In contrast, low SEC can make teachers more vulnerable to developing psychological distress and occupational burnout (Jennings & Greenberg, 2009; Wehby et al., 2012). Whereas the majority of preschool teachers report being satisfied with their jobs, the work conditions of a preschool teacher can be difficult (Bullough, Hall-Kenyon, & MacKay, 2012). Historically low

wages, low levels of education, cultural stigma surrounding preschool teachers, and student behavioral difficulties can take a toll on the well-being of preschool teachers (Grining et al., 2010; Hall-Kenyon et al., 2014; Zinsser et al., 2016). When teachers lack the social and emotional competencies to cope with daily stressors in the classroom, they are more likely to experience occupational burnout and psychological distress. It has been estimated that almost a quarter of Head Start teachers experience clinically significant levels of depression, surpassing the national average (Whitaker, Becker, Herman, & Gooze, 2013). In turn, teachers experiencing burnout may resort to more reactive and punitive classroom management strategies, leading to strained relationships with students, a deteriorating classroom climate, and poor SEL implementation.

### **Teacher SEC and Implementation Fidelity**

Although relatively scant, there is some research that indicates the importance of teacher SEC in supporting SEL implementation fidelity. For example, teachers who maintain positive relationships with their students through emotional support and modeling healthy emotional responses are likely to implement SEL interventions with fidelity (Sutherland, Conroy, McLeod, Algina, & Kunemund, 2018; Wanless, Rimm-Kaufman, Abry, Larsen, & Patton, 2015; Hanson-Peterson, Schonert-Reichl, & Smith, 2016). Indeed, it has been found that teachers who provide higher levels of emotional support to their students before implementing an SEL intervention are more likely to implement the intervention with higher fidelity (Sutherland et al., 2018; Wanless et al., 2015). Furthermore, teachers who feel that their own emotional expressiveness is acceptable in the classroom and helpful to their students are more likely to implement an SEL intervention with fidelity (Hanson-Peterson et al., 2016). Effective classroom management is also important in the implementation of SEL interventions and can be related to teacher SEC

(Jones, Bailey, & Jacob, 2014). Consequently, when teachers are able to manage their classrooms well, their students are more likely to be engaged in and responsive to an SEL intervention, and as a result, teachers are more likely to be able to deliver SEL interventions with fidelity (Jones et al., 2014; Domitrovich, Gest, Jones, Gill, & DeRousie, 2012).

Thus, while understudied, teachers with lower SEC who are also more vulnerable to psychological distress and burnout may experience difficulty implementing interventions with fidelity and may especially benefit from outside support provided by individuals who are knowledgeable about intervention implementation, or intervention coaches. Intervention coaches may be particularly crucial in supporting SEC, well-being, and implementation fidelity among preschool teachers (Wehby et al., 2012).

### **Implementation Fidelity and Intervention Coaching**

Quality implementation of an intervention with fidelity is critical to achieving intended student outcomes (O'Donnell, 2008). Broadly, implementation fidelity is defined as the delivery of an intervention in a manner that the intervention developers intended, in order to replicate outcomes that have been demonstrated in research settings (Moncher & Prinz, 1991; Schoenwald & Hoagwood, 2001). Implementation fidelity can be organized by structure and process, or quantity and quality (Domitrovich et al., 2010; Harn, Parisi, & Stoolmiller, 2013; Gresham, 2009; Sanetti & Kratochwill, 2009). Structural or quantitative components of implementation fidelity are the aspects of intervention delivery that are directly observable, like program adherence or exposure (Gresham, 2009; Harn et al., 2013). Qualitative aspects of implementation fidelity require a more subjective and nuanced approach to measurement and can include participant responsiveness, competence, and knowledge of the intervention's rationale (Domitrovich et al., 2008; Harn et al., 2013; Webster-Stratton et al., 2011).

Intervention coaching is an embedded and ongoing implementation support for the interventionist (e.g., a teacher) by someone who is knowledgeable in the intervention (e.g., the intervention coach) (Han & Weiss, 2005). Components often found in intervention coaching models include teacher-coach alliance, observations, feedback, modeling, and role-play (Becker, Darney, Domitrovich, Keperling, & Ialongo, 2013). Intervention coaching models that include some combination of these components have been found to be effective supports of implementation fidelity in preschool settings (Fox, Hemmeter, Snyder, Binder, & Clark, 2011; Powell & Diamond, 2013). The present study focuses specifically on three components of intervention coaching that appear to have a positive impact on implementation fidelity: performance feedback, support of intervention understanding, and coach teacher-alliance (Becker, Bradshaw, Domitrovich, & Ialongo, 2013; Johnson, Pas, Bradshaw, & Ialongo, 2018; Wehby et al., 2012).

First, performance feedback is likely to be a useful fidelity support mechanism in preschool settings. Performance feedback is a process by which a coach delivers information to a teacher on how the intervention was delivered (i.e., what was done well or what could be improved) after the coach observes implementation of the intervention either verbally or in a visual format (Fallon, Collier-Meek, Maggin, Sanetti, & Johnson, 2015). Of the strategies surveyed in the intervention coaching literature, performance feedback is, by far, the most frequently examined (Becker, Darney, Domitrovich, Keperling, & Ialongo, 2013a; Fallon et al., 2015; Reinke, Stormont, Herman, & Newcomer, 2014; Rodriguez, Loman, & Horner, 2009; Sanetti, Fallon, & Collier-Meek, 2013). Of note, Fallon et al. (2015) reviewed single-case design studies that utilized performance feedback in verbal and visual formats by a coach or consultant to support implementation fidelity in teachers and found that performance feedback can be

considered an evidence-based practice according to the What Works Clearinghouse (WWC) standards for evaluating single-case design research (Kratochwill et al., 2010). These findings suggest that feedback delivered by a person who is knowledgeable in an intervention may be a promising implementation fidelity support for preschool teachers.

Support of intervention understanding can be considered an aspect of the intervention coaching process that is supported by multiple strategies that a coach may use to help the teacher be knowledgeable of the intervention's rationale throughout implementation (Becker et al., 2013a; Becker, Darney, Domitrovich, Keperling, & Ialongo, 2013). For example, a coach may talk with a teacher about the active ingredients of an intervention and the theoretical rationale of an intervention when they are modeling implementation strategies, when they are providing performance feedback, or through formal information sessions with the teacher (Becker et al., 2013b). The coach-teacher alliance may also support intervention understanding, in that teachers may feel more comfortable asking their coach about an intervention, may receive performance feedback in a constructive way, and may be more likely to participate in coach-teacher session activities, like modeling and role play, thus supporting intervention understanding. For example, a two-phased coaching model developed by Becker et al. (2013a) includes a discussion of intervention rationale while the coach models different intervention components. There is some evidence to support that coaching strategies that seek to cultivate intervention understanding in teachers are positively related to implementation fidelity (Becker et al., 2013a); however, this relationship has not been explored in preschool settings.

Finally, coach-teacher alliance can be understood as the level of trust and agreement that the teacher has with the intervention coach and the quality of their working relationship (Johnson et al., 2018; Wehby et al., 2012). Qualitative studies suggest that many teachers value

intervention coaches who are dependable, strong communicators, respectful, and competent (Helmer, Bartlett, Wolgemuth, & Lea, 2011; Knoche, Kuhn, & Eum, 2013; Shernoff, Lakind, Frazier, & Jakobsons, 2015; Vanderburg & Stephens, 2010). Furthermore, Johnson et al. (2018) found that in a sample of elementary school teachers who implemented the PAX Good Behavior Game (PAX GBG; Embry, Staatemeier, Richardson, Lauger, & Mitich, 2003), coach-teacher alliance significantly mediated the relationship between coaches' use of a needs assessment and implementation dosage.

### **Intervention Coaching and Teacher SEC**

Intervention coaching has been found to support well-being and protect against teacher burnout while also supporting implementation fidelity (Kretlow & Bartholomew, 2010; Reinke et al., 2014; Ransford et al., 2009; Reinke et al., 2012; Wehby et al., 2012). However, relatively little is known about which specific aspects of intervention coaching (e.g., performance feedback, support of intervention understanding, coach-teacher alliance) are effective in promoting teacher SEC and preventing symptoms of burnout and psychological distress, and supporting implementation fidelity in teachers, especially preschool teachers. Similar to an active ingredients framework of intervention implementation as it relates to intervention outcomes (Fixsen, Grimshaw, & Eccles, 2009), being knowledgeable about which components of coaching are most effective in regards to implementation fidelity can help coaching models to be utilized in targeted and efficient ways. Teachers experience a great deal of classroom demands and time constraints throughout their work day (Mojsa-Kaja, Golonka, & Marek, 2015), so the strategies coaches use must be meaningful and impactful in the support of a teacher's implementation fidelity.

Performance feedback, support of intervention understanding, and coach-teacher alliance are all aspects of coaching that are likely to impact teacher SEC. For example, a teacher who receives information on how they may or may not be effectively interacting with their students, labeling the emotions of their students, or modeling emotion regulation may better understand how they can demonstrate these skills via performance feedback, in turn increasing their SEC and improving student outcomes (Bailey, Denham, Curby, & Bassett, 2016). Thus, performance feedback in intervention coaching may support implementation fidelity by way of teacher SEC.

Coaching strategies to support intervention understanding may also impact teacher SEC. Indeed, a teacher may gain insight about what constitutes SEC through understanding how different aspects of a SEL intervention support social-emotional development in students. For example, a teacher understands that an intervention includes modeling of emotion regulation as a means to support emotion regulation and prosocial behavior in students, and as a result, that teacher gains a greater understanding of the origins of different disruptive behaviors and how he might support them through emotion regulation strategies. A teacher's level of understanding about emotion regulation and disruptive behaviors would potentially support teacher SEC (Bailey et al., 2013). We could then expect that teacher SEC could explain the relationship between strategies to support intervention understanding and implementation fidelity as well.

Finally, the coach-teacher alliance may also support teacher SEC and consequently act as a buffer against occupational burnout and psychological distress in teachers. Specifically, Wehby et al. (2012) explored the relationships among coach-teacher alliance, teacher burnout, teacher perception of the social validity of the intervention, and implementation fidelity of the Good Behavior Game (Barrish, Saunders, & Wolf, 1969), a classroom management intervention. It was found that coach-teacher alliance was the only significant and positive predictor of the

amount of intervention steps that teachers completed (Wehby et al., 2012). Furthermore, teacher burnout significantly moderated the relationship between coach-teacher alliance and implementation fidelity in that teacher burnout had a significant and negative relationship with implementation fidelity at low levels of coach-teacher alliance but not at high levels of coach-teacher alliance (Wehby et al., 2012). Thus, the relationship quality between a coach and teacher may support teacher SEC, prevent teacher psychological distress and burnout, and as a result, may be particularly helpful in supporting implementation fidelity in preschool settings (Johnson et al., 2018; Wehby et al., 2012).

### **The Current Study**

Effective implementation of SEL interventions is critical in preschool settings, particularly for young children experiencing poverty (Watanabe et al., 2011). Teacher SEC, which includes teacher psychological well-being, can have an impact on the extent to which teachers deliver SEL interventions with fidelity; unfortunately, preschool teachers rarely receive training or support to build critical SEC skills, and may experience significant levels of burnout and psychological distress as a result (Whitaker et al., 2013). Intervention coaching has shown promise as a potential implementation support and protective factor against burnout and psychological distress in teachers (Ransford et al., 2009; Wehby et al., 2012). However, to our knowledge, no research has explored the impact of specific components of coaching on teacher SEC, teacher psychological distress, and teacher burnout within preschool settings. Thus, the current study seeks to explore the following research questions: (1) What are the effects of different components of intervention coaching (e.g., performance feedback, support of intervention understanding, coach-teacher alliance) on teacher SEC? (2) Is there a negative relationship between teacher SEC and teacher psychological distress and burnout? It is

hypothesized that (a) all components of intervention coaching will be related to teacher SEC; and (b) higher levels of teacher SEC will be related to lower levels of teacher psychological distress and burnout.

### **Method**

Data for the current study were drawn from the Head Start CARES (Classroom-based Approaches and Resources for Emotion and Social skill promotion) Demonstration, a national randomized control trial of three SEL interventions (Preschool Promoting Alternative Thinking Strategies [PATHS], Incredible Years Teacher Training Program [Incredible Years], and Tools of the Mind-Play) in Head Start classrooms. Each of the three interventions included in the Head Start CARES Demonstration address SEL, however, they each support social-emotional development in different ways.

#### **SEL Interventions**

**Preschool PATHS.** The Preschool PATHS (Domitrovich, Greenberg, Kusché, & Cortes, 2005) curriculum contains 44 lessons and is designed to support teachers in fostering emotion recognition and communication, self-regulation, and prosocial behavior in their preschool students through explicit instruction and activities. Teachers also utilize teaching strategies that support a prosocial classroom environment, and in turn, support the development of prosocial skills and positive peer relationships (Moore et al., 2015). The curriculum is grounded in the Affective-Behavioral-Cognitive-Dynamic (ABCD) model of development, which emphasizes the integration of cognitive and language abilities with emotion understanding as a means to support the development of behavioral regulation and social emotional skill development (Greenberg & Kusché, 1993). The Preschool PATHS curriculum has yielded positive effects on a number of social-emotional outcomes among preschool students in Head Start classrooms including

improved emotion knowledge, social competence, social engagement, and prosocial skills (Domitrovich, Cortes, & Greenberg, 2007; Domitrovich et al., 2013; Moore et al., 2015).

**Incredible Years.** The Incredible Years Teacher Training curriculum is a component of the larger Incredible Years curriculum (Webster-Stratton, Gaspar, & Seabra-Santos, 2012). It involves a six day training program that trains teachers in strategies that (1) support proactive classroom management; (2) enhance the use of emotion coaching with their students; (3) promote positive student-teacher relationships; (4) teach social skills, emotion regulation, and problem-solving skills; and (5) improve home-school collaboration with students aged three to eight years. The Incredible Years programs are centered around childhood aggression theory which posits that aggressive and maladaptive behaviors in children are maintained by reinforcing, coercive interactions with adults (Patterson, 1982). Thus, the Incredible Years programs seek to prevent the development of problem behaviors in children through the use of proactive discipline strategies and positive adult-child interactions (Webster-Stratton, 2000). Multiple studies indicate that the program strengthens teachers' use of praise, decreases use of criticism in teachers, increases prosocial behaviors among students, and decreases aggression in students (Center for the Study and Prevention of Violence, 2006). The teacher training program has also demonstrated positive impacts on teacher-child interactions within Head Start classrooms (Raver et al., 2008; Williford & Shelton, 2008).

**Tools of the Mind.** Tools of the Mind-Play was developed to promote children's planning skills, understanding of social roles, memory and capacity for focused attention, and social-emotional understanding (Hsueh, Lowenstein, Morris, Mattera, & Bangser, 2014). The Tools of the Mind-Play curriculum is supported by perspectives of child cognitive development that view children as constructors of their knowledge, child development as inextricably tied to

the social context, learning as a driver of child development, and language as crucial to cognitive development (Bodrova & Leong, 2007). The curriculum supports teachers in the practice of strategies that support and scaffold children's acquisition and development of psychological "tools," or culturally-based, external, and visual aids that, when internalized, help children to master psychological functions like memory and attention (Kozulin, 2003). Teachers help students to use these psychological tools through various activities in the curriculum like the freeze game, buddy reading, pattern movement, and scaffolded writing (Barnett et al., 2008). Of note, the intervention developers condensed the Tools of the Mind-Play curriculum from two years to one year for the Head Start CARES Demonstration (Hsueh et al., 2014). The program has demonstrated positive impacts on indices of classroom quality and children's executive functions (Barnett et al., 2008; Diamond, Barnett, Thomas, & Munro, 2007).

### **Intervention Coaching**

Although Preschool PATHS and Incredible Years each come with a specific coaching model, the Head Start CARES Demonstration chose to use one standard coaching model developed by the Manpower Demonstration Research Corporation (MDRC) for all three SEL interventions. Five key elements comprised the coaching model: teacher-focused, collaborative, instructional, evaluative, and nonsupervisory. The model was teacher-focused in that coaches aimed to support teachers in their practice rather than addressing student needs directly. The collaborative nature of the model was encapsulated through coaches' understanding of SEL intervention implementation as a joint effort between them and their teacher, with each contributing equally from their areas of expertise. The model was also instructional in that coaches continually supported teacher learning and implementation of the SEL interventions. There was an evaluative aspect of the model in which coaches were expected to provide

performance feedback to teachers concerning their implementation of the SEL interventions. Finally, coaches were expected to be nonsupervisory in that they could not make or influence decisions pertaining to teacher employment status or compensation (Lloyd & Modlin, 2012).

### **Participants**

Seventeen Head Start grantees across the U.S. participated in the Head Start CARES Demonstration and were selected to reflect the geographic, racial, and ethnic diversity of the national Head Start population. Geographic distribution was generally equal for the 17 grantees that were located across four regions of the country: four grantees in the Northeast, four in the West, three in the South, and six in the Midwest/Plains states. There was also diversity in the types of centers included within each grantee. Most grantees included community action agencies, stand-alone nonprofit agencies, and large school systems. There were two cohorts included in the Demonstration. Four grantees participated in the 2009-2010 school year (Cohort 1) and 13 grantees participated during the 2010-2011 school year (Cohort 2).

**Teachers.** The current sample consists of 308 lead teachers (99.4% female). 77 teachers were assigned to each condition (Control, Incredible Years, Preschool PATHS, and Tools of the Mind, and control). Only teachers who were assigned to one of the SEL intervention conditions received intervention coaching and provided feedback on coach quality via survey. Table 1 presents demographic characteristics for the current sample of teachers.

**Coaches.** The current sample consists of 52 intervention coaches. Each coach was assigned to provide implementation support to four to 13 classrooms of teachers who were implementing any of the three SEL interventions (Incredible Years, Preschool PATHS, and Tools of the Mind). Table 2 presents demographic characteristics for coaches within the current sample.

## Measures

**Components of Intervention Coaching.** Teacher perceptions of coach quality were measured via 16 items on a teacher self-survey, administered in spring of the intervention implementation year. For each item, teachers rated the quality of their coaching experience on a Likert-type scale ranging from 1 (“Never”) to 5 (“Always”) across three domains: quality of session, coach-teacher alliance, and coach support of implementation. Quality of session (four items;  $\alpha = .95$ ) can be described as a lead teacher’s perception of the general effectiveness and clarity of the coaching sessions and includes items assessing teachers’ perceptions of the quality of performance feedback they receive from their coach. Coach-teacher alliance (eight items;  $\alpha = .94$ ) pertains to the lead teacher’s perception of the level of trust and relational support in the coach-teacher relationship and can be considered a lead teacher’s perceptions of the coach-teacher alliance. Coach support of implementation (five items;  $\alpha = .94$ ) involves the lead teacher’s perceptions of how effective the coaching sessions were in supporting their understanding of the SEL intervention and its use in the classroom. A composite was created for each component of coaching by taking an average across items in each domain. This measure was developed specifically for the Head Start CARES Demonstration.

**Teacher Psychological Distress and Burnout.** Teacher psychological distress was assessed using the Kessler Psychological Distress Scale (K-6; Kessler et al., 2002). The K-6 was developed for use in the U.S. National Health Interview Survey (NHIS) and is used as a self-report screener for psychological distress. The screener contains six items that assess the frequency with which individuals have experienced different symptoms during the past 30 days using a 5-point Likert-type scale ranging from 0 (“None of the time”) to 4 (“All of the time”). Reliability of the scale scores in the current sample was acceptable ( $\alpha = .77$ ). In terms of

validity, Prochaska, Sung, Max, Shi, & Ong (2013) found associations with moderate and severe psychological distress and mental health care utilization, impairment, and substance abuse. Support for this measure as a screener for mood disorders has also been demonstrated in a diverse set of samples (Baggaley et al., 2007; Mitchell & Beals, 2011).

Teacher burnout was assessed using the Emotional Exhaustion scale of the Maslach Burnout Inventory-Educators Survey (MBI-ES; Maslach, Jackson, & Leiter, 1996). The Emotional Exhaustion scale includes nine items that assess teachers' feelings of emotional overextension and exhaustion in their work. These items are on a Likert-type scale ranging from 0 ("Never") to 6 ("Every day"). For example, "I feel emotionally drained from my work." A total score was created by taking the sum of all nine items, and ranges from 0 to 54. Reliability of the scale scores in the current sample could not be obtained because the data set does not include the original items, but alpha reliability coefficients in related samples are excellent,  $\alpha \approx .90$  (Domitrovich et al., 2015; Wehby et al., 2012). In terms of validity, the MBI-ES Emotional Exhaustion scale has been used in a number of studies and has demonstrated associations with teachers' implementation fidelity of classroom-wide social-emotional interventions (Domitrovich et al., 2015; Wehby et al., 2012).

**Teacher social emotional competence (SEC).** Teacher SEC was measured using the Social-Emotional Instruction composite of the Adapted Teaching Style Rating Scale (Adapted TSRS; Raver, Domitrovich, Greenberg, Morris, & Mattera, 2012) that was developed specifically for the Head Start CARES Demonstration. The TSRS was originally developed to complement the classwide observational data collected from the Classroom Assessment Scoring System (CLASS; La Paro & Pianta, 2004) by obtaining data on individual teacher behaviors. Data were collected on lead teacher behaviors twice over the course of four separate segments

totaling two hours of observation by independent observers who were blind to the intervention status of the classrooms (Morris et al., 2014). The Social-Emotional Instruction composite was developed specifically to reflect the theory of change for Preschool PATHS; however, data on the TSRS was collected for all classrooms regardless of intervention condition. This composite examines a teacher's ability to (1) create an environment that is supportive of children's emotion expression, (2) model emotion labeling, (3) model effective calming strategies, (4) support social awareness via empathy, (5) help children regain emotional control, and (6) help children socially problem-solve (Morris et al., 2014). The composite includes six items on a Likert-type scale from 1 ("low") to 5 ("high"). For example, "The teacher frequently takes advantage of multiple opportunities to teach children about their emotions by identifying and labeling children's emotional experiences..." REsearch-Based Developmentally Informed (REDI) program (Domitrovich et al., 2009; Bierman, Domitrovich, Greenberg, & Gill, 2013).

### **Procedure**

Four to eight centers within each grantee (a total of 104 centers) were randomly assigned to one of the three SEL interventions or to a "business as usual" control group. The Demonstration included 308 classrooms. Preschool PATHS was implemented in 77 classrooms, Incredible Years was implemented in 77 classrooms, Tools of the Mind-Play was implemented in 77 classrooms, and the control group included 77 classrooms. Centers within each grantee were assigned to blocks based on similarity in racial and ethnic composition and part-day or full-day programming. For larger grantees, it was more difficult to assign a grantee to a single block by similarity; thus, centers in these larger grantees were grouped into smaller, randomly assigned blocks composed of four to eight centers.

Coach quality data and teacher well-being data were obtained from teacher ratings via responses from lead teacher self-surveys collected in the spring of the implementation year. Teacher SEC data was obtained from classroom observations collected in the spring of the implementation year. Only teachers within a SEL intervention condition (Incredible Years, Preschool PATHS, and Tools of the Mind) provided coach quality data.

### **Data Analysis**

Aspects of intervention coaching were hypothesized to predict teacher SEC, which in turn, was hypothesized to predict teacher distress and burnout (see Figure 2). Correlational analyses were first conducted to initially test the associations among these variables of interest. Structural Equation Modeling (SEM) was subsequently used to test all hypothesized pathways. The fit of this model was assessed by examining the comparative fit index (CFI) and the root mean error of approximation (RMSEA). The CFI tests the hypothesized model against a null or independence model, which assumes that there are no relationships among the observed values in the population. Values greater than .90 and .95 reflect acceptable and excellent fit, respectively. The RMSEA evaluates a hypothesized model by comparing it to a model with perfect fit and takes into account sample size and model complexity. Values less than .05 and .08 reflect excellent and acceptable fit, respectively (Browne & Cudeck, 1993).

## **Results**

### **Descriptive Statistics**

Table 3 presents correlations, means, and standard deviations for all analytic variables of interest. Teachers were likely to rate coaches as competent across skill areas including quality of session ( $M = 4.45$ ,  $SD = .82$ ), coach-teacher alliance ( $M = 4.62$ ,  $SD = .62$ ), and coach support of implementation ( $M = 4.62$ ,  $SD = .64$ ). In addition, observed teacher SEC on the TSRS was

relatively low ( $M = 1.98, SD = .81$ ), and teachers rated their symptoms of psychological distress ( $M = 2.83, SD = 3.48$ ) and burnout ( $M = 12.43, SD = 11.01$ ) as relatively low.

Correlation analyses were conducted to examine the direct associations among all analytic variables of interest (see Table 3). The three teacher-rated components of coaching quality were each significantly and positively associated with one another, with correlations ranging from .83 to .91. Contrary to hypotheses, teachers' perceptions of coaching components were not significantly associated with teacher levels of SEC. Similarly, perceptions of coaching components were not significantly associated with psychological distress or burnout. Finally, contrary to hypotheses, teacher SEC was not found to be significantly associated with teacher psychological distress ( $r = .03, p = .55$ ) or burnout ( $r = .08, p = .18$ ).

Finally, in a series of regression analyses, the different aspects of coaching quality (i.e., quality of session, coach-teacher alliance, and coach support of implementation) were explored as possible predictors of teacher burnout, teacher psychological distress, and teacher SEC. In each regression model, prior scores (i.e., Time 1) on the outcome variable were included as a covariate to control for their effects. In the model predicting teacher burnout, coach-teacher alliance emerged as a negative and statistically significant predictor when previous levels of teacher burnout were controlled ( $t = -2.20, p < .05$ ). Conversely, the other aspects of coaching were not found to be significant predictors of burnout. In subsequent models, none of the components of coaching were not found to be significant predictors of teacher psychological distress or teacher SEC when controlling for previous levels of these outcome variables.

### **Structural Equation Modeling**

Correlation and regression analyses did not provide initial support for the hypotheses. Nonetheless, structural equation modeling (SEM) was utilized to explore whether the

hypothesized model provided a good fit to the data as a whole. To this end, two path models were estimated. First, a model was estimated containing simultaneous, direct pathways from each component of intervention coaching to teacher SEC, psychological distress, and burnout. The results of the model are presented in Figure 3. The model did not demonstrate acceptable fit: CFI = .83; RMSEA = .38. Additionally, none of the hypothesized pathways were found to be statistically significant. These results are not surprising, given the null results found in the descriptive analyses.

A second model was estimated to determine the presence of a mediation effect. Specifically, pathways between teacher SEC and psychological distress and burnout were estimated, in addition to all of the pathways specified in the previous model. Results of this model are presented in Figure 4. Similar to the previous model, this model did not demonstrate acceptable fit, CFI = .83; RMSEA = .67, and none of the path coefficients were statistically significant. Thus, teacher SEC was not found to mediate the relationship between intervention coaching and teacher well-being.

### **Follow-up Exploratory Analyses**

Given the nonsignificant results yielded by the primary analyses, additional exploratory analyses were conducted to explore differences in teacher SEC and teacher well-being across the SEL intervention conditions (Incredible Years, Preschool PATHS, and Tools of the Mind) and the control condition. Specifically, a series of repeated measures ANOVA were conducted with time as the repeated measure (pre- and post-intervention) and intervention condition as the categorical independent variable. In addition to examining main effects, the two-way interaction term between time and intervention condition was examined to determine if teachers in one condition experienced more change in SEC (Model 1), burnout (Model 2), or psychological

distress (Model 3) across the intervention period than teachers in other conditions. Statistically significant effects were followed with univariate posthoc analyses, and Bonferroni corrections were used to correct for familywise error rate due to multiple comparisons.

Model 1, which assessed differences in teacher SEC over time, yielded a statistically significant main effect for intervention condition ( $F(3, 225) = 3.60, p = .014$ ); however, this main effect was qualified by a statistically significant interaction effect between intervention condition and time ( $F(3, 225) = 5.00, p = .002$ ). This interaction is presented graphically in Figure 5. Teachers in the Preschool PATHS condition experienced a significant increase in SEC across time. Conversely, teachers in the Incredible Years condition experienced a marginal increase in SEC, and teachers in the Tools of the Mind and Control conditions showed a decrease in SEC across time.

In Model 2, which examined levels of teacher burnout across time and intervention conditions, neither of the main effects were statistically significant. Similarly, the interaction between intervention condition and time was nonsignificant ( $F(3, 213) = 1.37, p = .252$ ). However, as shown in Figure 6, teachers in the Preschool PATHS and control conditions experienced a noticeable decrease in burnout over time. Conversely, teachers in the Incredible Years intervention condition experienced a marginal decrease in burnout, while teachers in the Tools of the Mind intervention condition experienced an increase in burnout over time.

Finally, results of Model 3 did not reveal statistically significant differences in levels of psychological distress across SEL intervention conditions from pre- to post-intervention. However, similar to the results of Model 2, there was a noticeable decrease in psychological distress over time among teachers in the Preschool PATHS condition, whereas teachers in the Incredible Years and Tools of the Mind conditions experienced only a marginal decrease in

psychological distress, and the control group actually experienced an increase over time (see Figure 7). Despite these trends, the interaction between intervention condition and time was nonsignificant ( $F(3, 212) = 2.26, p = .082$ ).

### **Discussion**

The purpose of this study was to examine the associations among aspects of intervention coaching, teacher SEC, psychological distress, and occupational burnout among Head Start preschool teachers. Previous research suggests that intervention coaching and teacher SEC may be protective factors against teacher psychological distress and burnout (Jennings & Greenberg, 2009; Ransford et al., 2009; Swartz & McElwain, 2012; Wehby et al., 2012). However, these relationships have not been explored among teachers extensively, particularly preschool teachers, despite potential theoretical support (Jennings & Greenberg, 2009). On the whole, the primary hypotheses were not supported. Nonetheless, descriptive analyses revealed that coach-teacher alliance has the potential to protect against teacher burnout. Additionally, interesting differences in teacher SEC, burnout, and psychological distress among the SEL intervention conditions from pre- to post-intervention emerged.

Results of descriptive analyses revealed that coach-teacher alliance was a negative and statistically significant predictor of teacher burnout when controlling for previous levels of teacher burnout for all teachers. This finding is congruent with previous research that has found that coach-teacher alliance is likely a critical component of intervention coaching in the prevention of teacher burnout (Johnson et al., 2018; Wehby et al., 2012). Teachers who feel emotionally supported during coaching sessions may be less likely to experience emotional exhaustion as they encounter daily stressors within their classrooms, as much of the development of occupational burnout is contingent on the quality of occupational support and interpersonal

connection that employees experience (Anomneze et al., 2016). As such, it is encouraging that intervention coaching, particularly the coach-teacher alliance, can potentially reduce the development of occupational burnout of preschool teachers in Head Start classrooms.

Specifically, through the context of the coach-teacher alliance, coaches provide a supportive and intentional space where teachers are able to talk about and tangibly address classroom challenges, thus potentially decreasing a teacher's feelings of helplessness or frustration that might lead to occupational burnout.

Contrary to the first hypothesis, teacher ratings of different components of intervention coaching quality were not significantly associated with teacher SEC. These findings are in contrast to current literature suggesting that intervention coaching may be a means through which teacher SEC can be supported (Jennings & Greenberg, 2009; Reinke et al., 2014; Zinsser et al., 2016). For example, teachers in elementary school settings who receive regular coaching have been found to implement more proactive behavior management strategies with their students when compared to teachers who receive less frequent coaching (Reinke et al., 2014). Similarly, preschool teachers who have easier access to intervention coaches feel better equipped to address challenging behaviors in their students when compared to teachers who have more difficulty accessing an intervention coach (Zinsser et al., 2016). It is important to consider that this area of research is scant, and thus, the unique realities of preschool teachers need to be further explored. Preschool teachers are tasked with demands that teachers at other developmental levels often do not have to confront, including supporting kindergarten readiness, which encompasses the foundations of social-emotional and academic skill development for many students. As such, the unique demands of the preschool environment may outweigh the potential benefits of intervention coaching in regards to SEC because intervention coaching may

not fully address the day-to-day challenges associated with being a preschool teacher. There may be additional sources of support within or outside the preschool environment that further address teacher SEC. These could include professional development experiences that specifically address teacher well-being, increased salary or improved occupational benefits for preschool teachers, and preventative community-wide initiatives to address risk factors that may contribute to teacher stress or behavioral difficulties in early childhood.

The present findings also diverge from emerging research suggesting the possibility for associations among teacher SEC and psychological distress and burnout in preschool settings (Jennings & Greenberg, 2009; Swartz & McElwain, 2012). Specifically, Swartz & McElwain (2012) found that preservice preschool teachers in a university preschool setting who had higher self-reported emotion regulation strategies, more accepting beliefs about children's emotions, and higher self-reported levels of perspective-taking also had more supportive responses to children's negative emotions. Although this prior research is important in the context of the current study, this area of emerging research has largely not explored the realities of Head Start teachers specifically, which may be particularly unique given the realities of caring for young children from low-income backgrounds. Children who come from low-income backgrounds are likely to be more vulnerable to adverse childhood experiences and may lack protective supports to which young children from more advantaged backgrounds potentially have access. As such, teachers in Head Start classrooms may be more vulnerable to the negative impacts of psychological distress and burnout as they support the complex needs of their students. Thus, the needs and realities of Head Start teachers will continue to be a critical area of research.

Although the primary hypotheses were not supported in the current study, exploratory analyses revealed some interesting findings that are important to consider in the context of the

current research. More specifically, teachers in the Preschool PATHS intervention condition appeared to experience the greatest benefits from pre- to post-intervention when compared to teachers in the other conditions, including a statistically significant increase in SEC and decreases (albeit nonsignificant) in psychological distress and burnout. These results are not entirely surprising, given the theory of change associated with each intervention that was originally postulated by the developers of the Head Start CARES Demonstration (Morris et al., 2014). Specifically, it was hypothesized and found in early Head Start CARES Demonstration research that teachers in the Preschool PATHS intervention had higher ratings in components of social-emotional instruction than those in the control group. Most notably and pertinent to our findings, Preschool PATHS was theorized and found to impact the social-emotional instruction composite of the Adapted TSRS, which can be viewed as a reflection of teacher SEC and was utilized as such in the current study (Morris et al., 2014). This was expected by the researchers involved in the Head Start CARES Demonstration because the Preschool PATHS curriculum emphasizes and supports student emotion recognition and communication, self-regulation, and prosocial behaviors (Domitrovich et al., 2005) which are all behaviors that comprise teacher SEC. In contrast, teachers in the Incredible Years intervention were expected to have higher ratings on components related to classroom management than those in the control group, and teachers in the Tools of the Mind intervention were expected to engage in more scaffolding practices than teachers in the control group (Morris et al., 2014). Thus, within the context of the Head Start Cares theory of change, and in the framework of the Prosocial Classroom Model (Jennings & Greenberg, 2009), it is not surprising that teachers within the Preschool PATHS intervention experienced a noticeable increase in SEC across time when compared to teachers in other conditions, and appeared to have a noticeable decrease in teacher psychological distress

and burnout. These findings are also analogous to other studies demonstrating that social-emotional interventions have the potential to not only impact students but also those who deliver the interventions, like teachers, particularly their levels of SEC and psychological distress or burnout (Domitrovich et al., 2016; Hopman et al., 2018). It is also notable that the differences found were made apparent when looking across time points, suggesting that the possible benefits of SEL interventions on teachers are fostered by exposure over time. Thus, in light of these findings, the benefit of SEL interventions is facilitated with time and may not be ascertained in the initial stages of implementation.

### **Limitations and Future Directions**

The current study contributes to our understanding of the role of intervention coaching in supporting teacher social-emotional competence and well-being; however, like any research study, there are some areas of limitation. First, although gathering teacher perspectives of intervention coaching quality can be helpful and enlightening, other perspectives should be utilized in order to more fully understand the nature of intervention coaching. Specifically, in addition to drawing from teacher ratings, subsequent research could make use of direct observations of intervention coaching sessions and could incorporate a measure of intervention coaching fidelity so as to better ascertain the direct impacts of coaching. Second, all teachers assigned to an intervention condition in the Head Start CARES Demonstration received intervention coaching, and thus, definitive conclusions cannot be made concerning the benefits of coaching specifically for teachers implementing an SEL intervention in this study. Future research should make use of intervention conditions where coaching is not present so as to more clearly discern the potential impact of intervention coaching on teacher SEC, teacher burnout, or teacher psychological distress for teachers who are implementing an SEL intervention. Third,

teacher perspectives of intervention coaching quality were only available at post-intervention. Future research should consider examining how a teacher's perspective of intervention coaching might change over time and, in turn, potentially impact teacher SEC, teacher burnout, and teacher psychological distress. Fourth, the current study did not examine other moderating variables that may have also influenced the outcomes of interest. Specifically, years of teaching experience, level of education, and other professional development experiences may also potentially impact teacher SEC, teacher burnout, or teacher psychological distress (Amoneze, et al., 2016; Bullough et al., 2012; Jennings & Greenberg, 2009; Zinsser et al., 2016). Finally, coaching fidelity and intervention fidelity were not examined in the current study due to the significant differences in the ways in which coaching fidelity and intervention fidelity were examined, particularly the scaling of the assessment items and the item prompts. Not measuring coaching fidelity makes it more difficult to ascertain how helpful intervention coaching may actually be for teachers as it is important that all teachers are receiving coaching in a consistent manner. As such, future research will need to design coaching fidelity and intervention fidelity measures that are aligned with one another in order that relationships amongst these variables be more easily discerned.

### **Implications for Practice**

The findings of the current study have the potential to inform the practice of school psychology in a number of ways. The findings demonstrate that a supportive relationship between an intervention coach and teacher has the potential to prevent teacher burnout, thus going beyond the intended role of intervention support. Given this information, school psychologists and other school staff should consider the ways in which their interactions with teachers could be more interpersonally supportive. This will likely entail a continuing dialogue

of what forms of support that teachers need from other school staff and the effectiveness of said support. In this vein, teachers and other school staff may benefit from a scheduled system of data collection that makes use of classroom observations, student outcomes, and teacher perspectives to support conversations on how teachers and their classrooms can be optimally supported. It is important that teacher perspectives are gathered and incorporated as systems are developed to support teachers and their implementation of various interventions in order that teachers feel included and supported in the changes that are taking place. To this end, school psychologists and other school staff could take into consideration not only the areas for growth in each teacher, but also the strengths that each teacher possesses. Furthermore, as an intervention coaching system gains success in a school, teachers could be given the opportunities for advancement via opportunities to provide coaching to other teachers.

In light of the current study's findings, schools implementing SEL interventions should be aware of the ways in which an SEL intervention could impact not only the target group (i.e., students) but also those who are delivering the intervention, teachers. This study found that SEL interventions, like *Preschool PATHS*, can potentially shape those delivering the intervention in positive ways, and complements other research that demonstrates that teacher SEC may be supported by SEL interventions that target aspects of SEC (Domitrovich et al., 2016). As such, schools implementing SEL interventions can envision the potential impact of that intervention not just in terms of its impact on the targeted group, but also on the organization as a whole. To this end, these organizations should gather data on teacher outcomes as well as student outcomes in order to inform what interventions might be the best fit for a school. Furthermore, schools should examine research that explores teacher outcomes for various SEL interventions as they make decisions around SEL intervention implementation as this is an expanding area of research.

## **Conclusion**

In conclusion, the current study suggests that while many of the impacts of intervention coaching quality on teacher SEC, psychological, distress, and burnout may be difficult to ascertain, some aspects of intervention coaching quality may be more discernible. Specifically, the quality of the working relationship between a teacher and intervention coach may have the potential to buffer against occupational burnout. Furthermore, the nature of an SEL intervention, specifically the areas that the intervention is intended to target in students, may impact teacher characteristics, like teacher SEC. These findings suggest that the impacts of an SEL intervention can go beyond intended child outcomes and can potentially impact those who are delivering an intervention, like teachers. Furthermore, preschools and other organizations that are implementing SEL interventions should be aware of how implementation supports can be designed to support implementation from a holistic standpoint that addresses areas in addition to implementation fidelity, like teacher well-being and teacher SEC.

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**APPENDIX**

## Appendix A

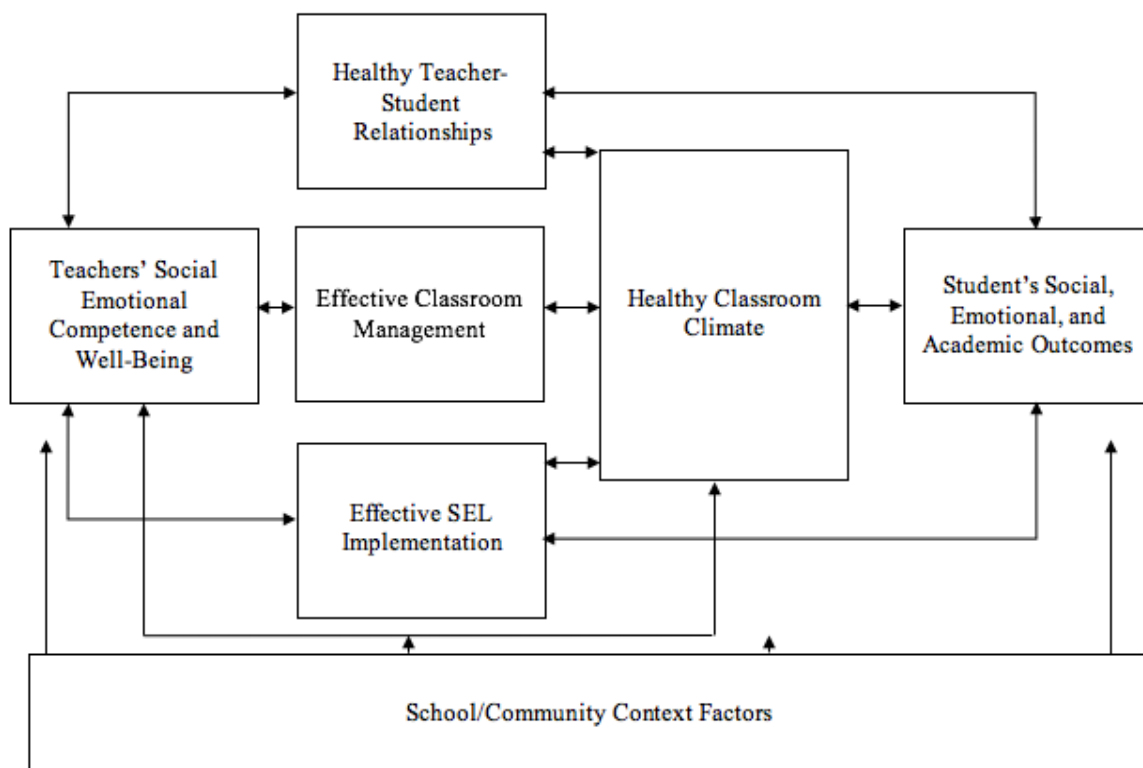


Figure 1. Jennings & Greenberg (2009) Prosocial Classroom Model.

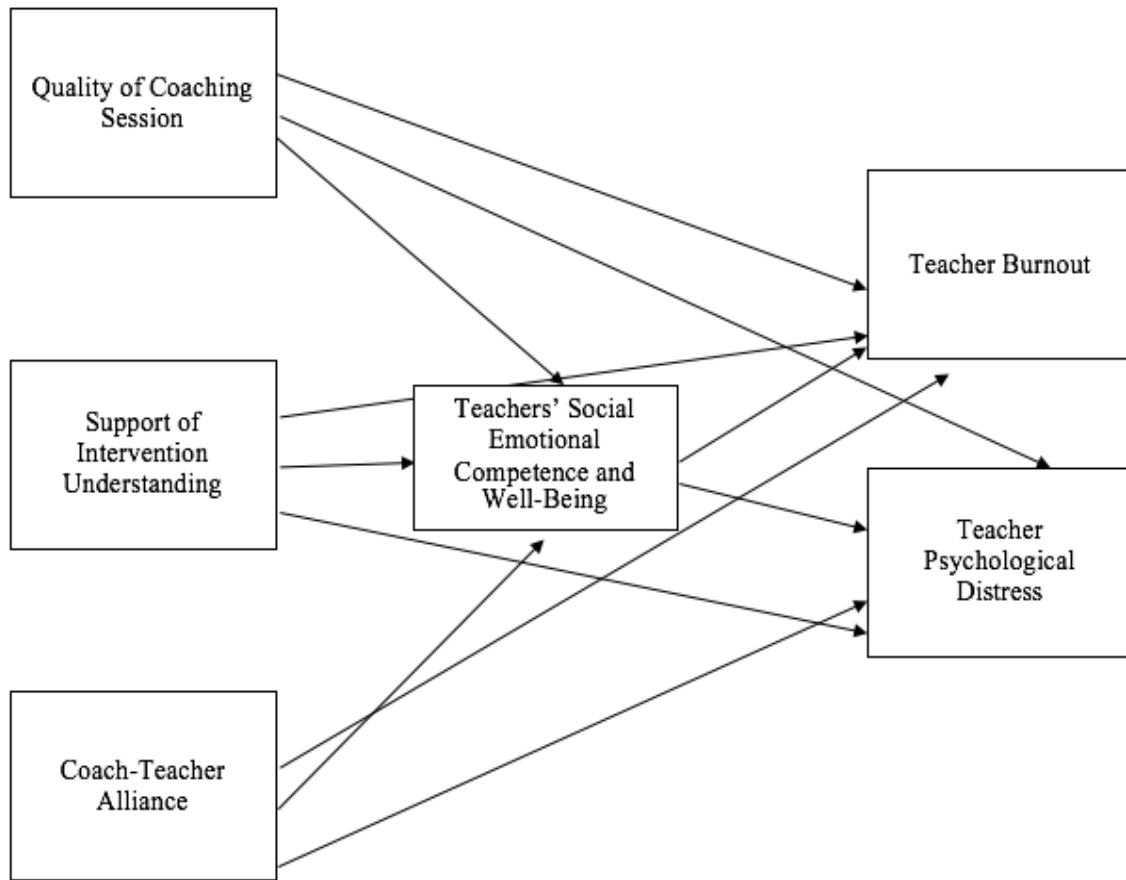


Figure 2. Hypothesized analytic model.

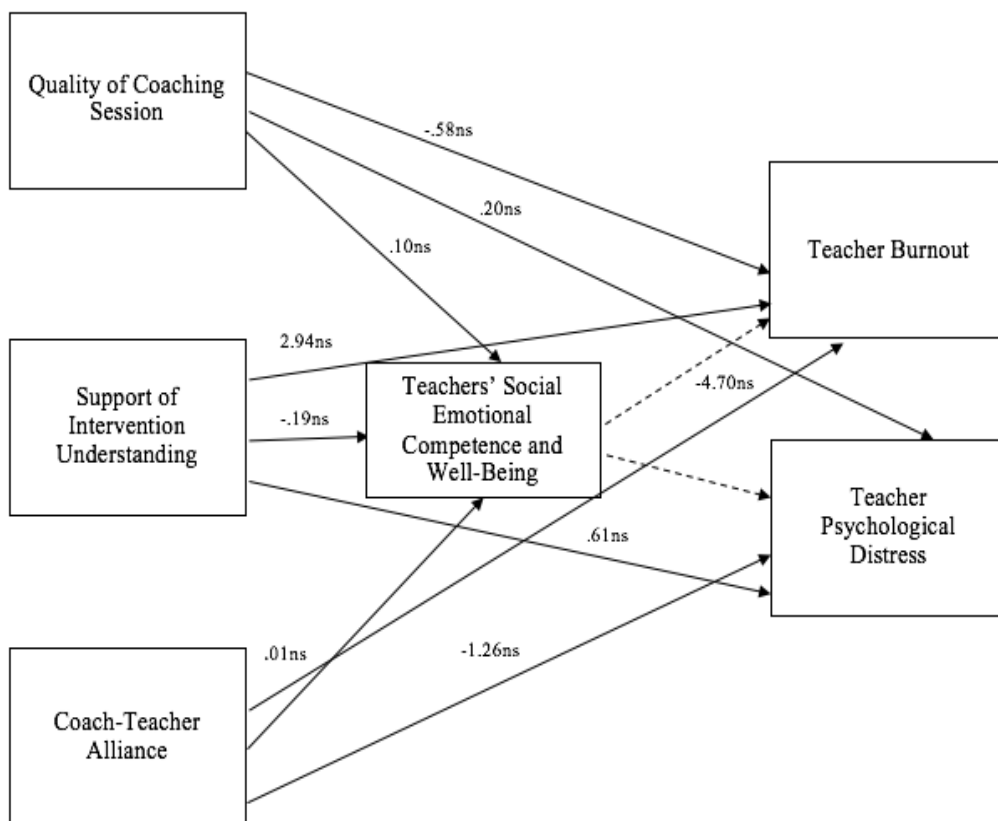


Figure 3. Initial analytic model with unstandardized estimates.

\*\*\* $p < .0001$ ; ns = nonsignificant.

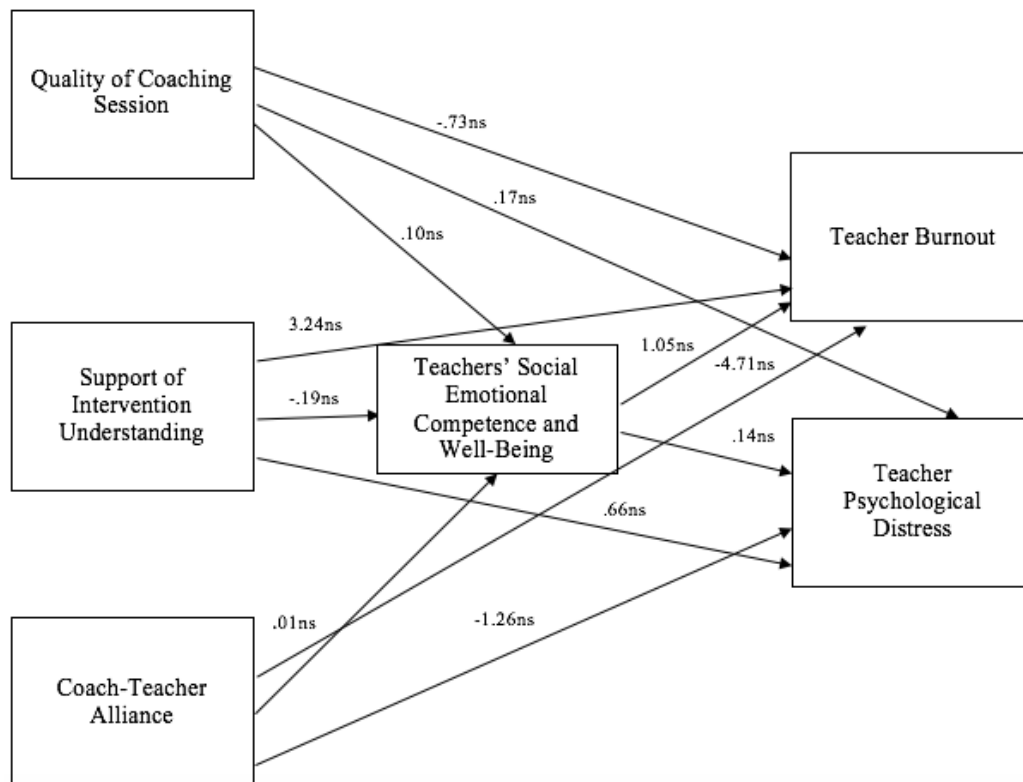
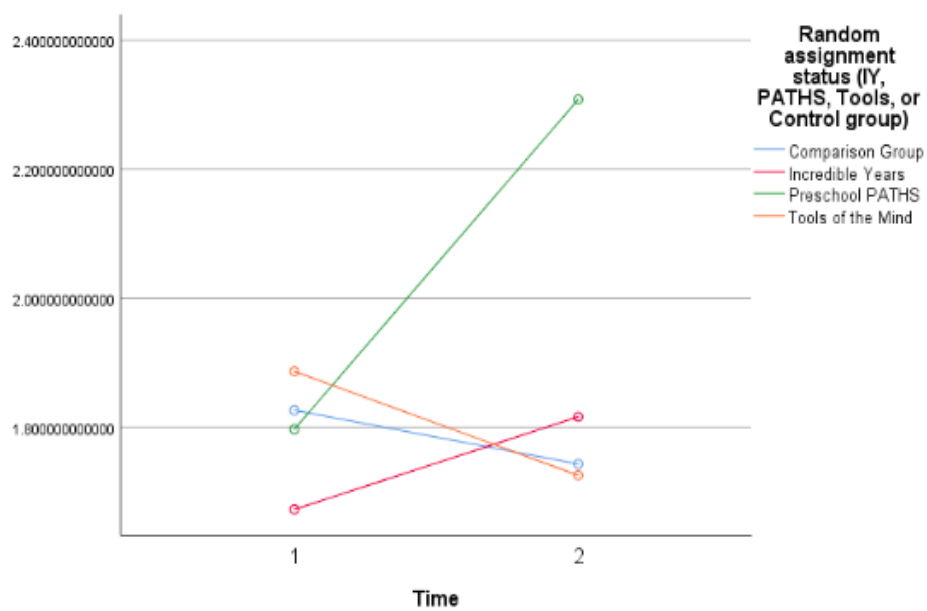


Figure 4. Second analytic model with unstandardized estimates.  
 \*\*\* $p < .0001$ ; ns = nonsignificant.



*Figure 5.* Exploratory Model 1; Teacher SEC within each SEL intervention condition from pre- to post-intervention.

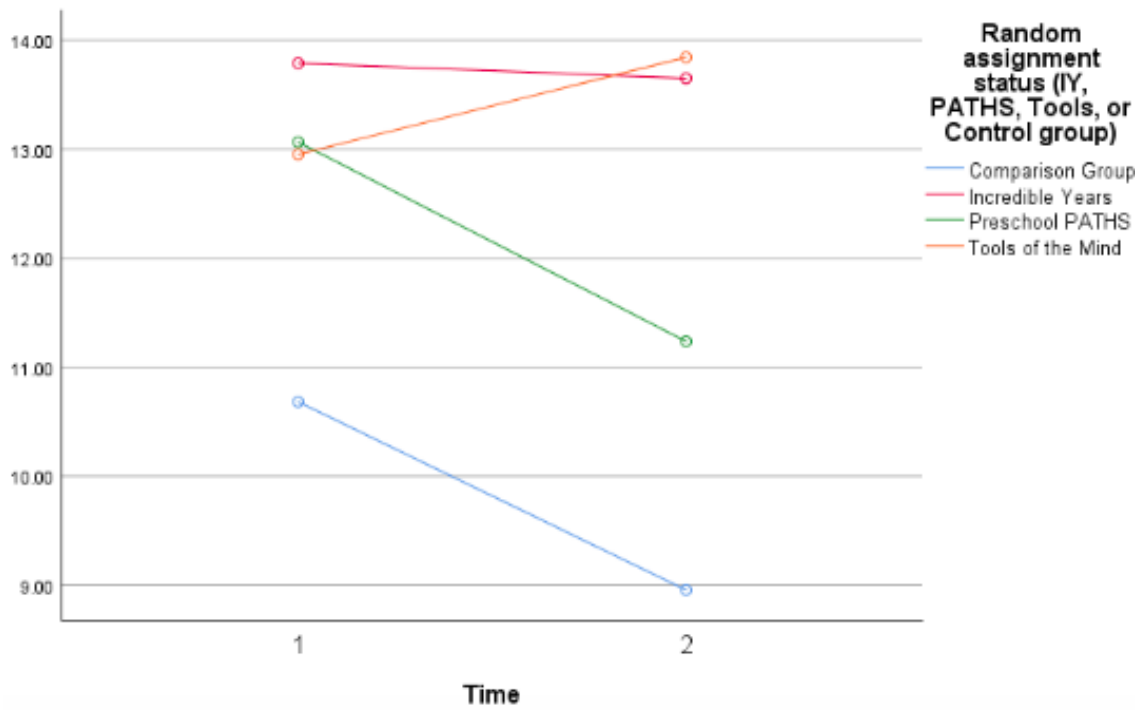
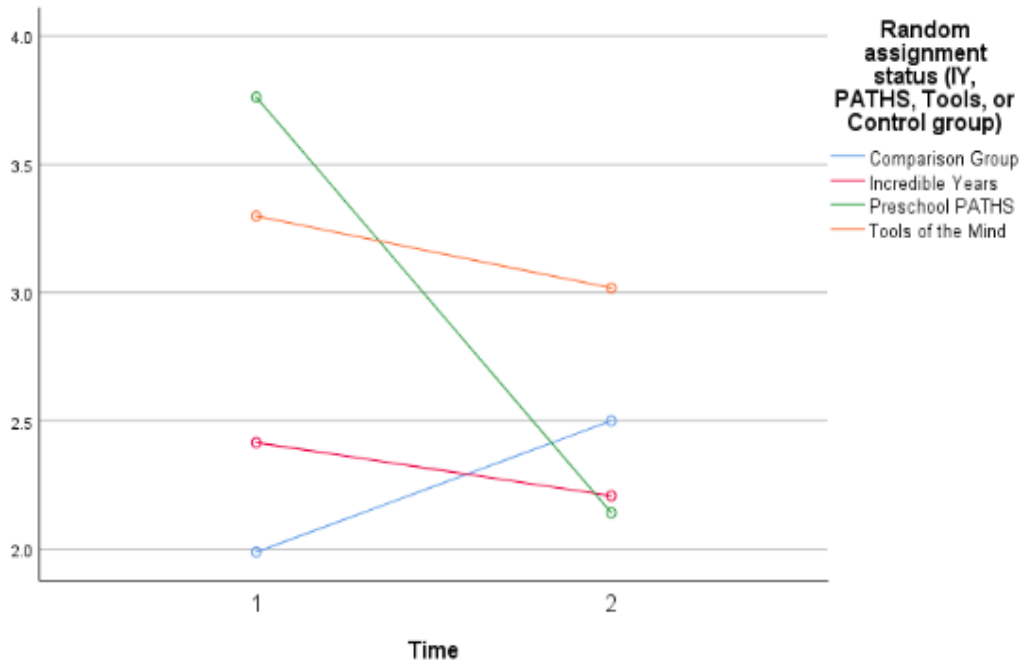


Figure 6. Exploratory Model 2; Teacher burnout within each SEL intervention condition from pre- to post-intervention.



*Figure 7.* Exploratory Model 3; Teacher psychological distress within each SEL intervention condition from pre- to post-intervention.

Table 1

*Teacher demographics*

Variable	Percentage
Gender (Female)	99.4
Black	34.9
White	28.3
Hispanic	30.1
Other	6.6
Child Development Associate (CDA) credential	52.6
State-awarded preschool certificate	45.9
Teaching certificate or license	69.2
Post-secondary school degrees or currently enrolled in additional teacher-related training	33.3
Bachelor's degree or higher	61.8

Table 2

*Coach demographics*

Variable	Percentage
Gender (Female)	100
Black	25.5
White	54.9
Hispanic	9.8
Other	9.8
Professional experience in adult education	63.5
Professional experience in early childhood settings	90.4
Received training as a coach or teacher in an SEL program	38.5
Teaching certificate	36.5
State-awarded preschool certificate	13.5
Social work, psychology, or counseling license	9.6
Bachelor's degree	17.3
Some graduate school	17.3
Graduate degree (master's or doctoral)	65.4

Table 3

*Bivariate correlations, means, and standard deviations for analytic variables*

Variable	1	2	3	4	5	6	<i>M</i>	<i>SD</i>
1. Coaching Quality of Session	-	-	-	-	-	-	4.45	.82
2. Coaching Support of Implementation Understanding	.85**	-	-	-	-	-	4.62	.62
3. Coach-Teacher Alliance	.83**	.91**	-	-	-	-	4.62	.64
4. Teacher SEC	-.01	-.05	-.04				1.98	.81
5. Burnout	-.12	.10	-.13	.08	-	-	12.43	11.01
6. Psychological Distress	.04	.05	-.07	.03	.62**	-	2.83	3.48

*Note.* \*  $p < .05$ ; \*\*  $p < .01$ .

Table 4

*Regression analyses for aspects of coaching quality as predictors of teacher burnout, SEC, and psychological distress.*

	<i>Model 1 Teacher SEC</i>		<i>Model 2 Burnout</i>		<i>Model 3 Distress</i>	
	<i>B</i>	<i>SE</i>	<i>B</i>	<i>SE</i>	<i>B</i>	<i>SE</i>
Quality of Session	.158	.151	1.12	1.61	.021	.620
Coach-Teacher Alliance	.008	.216	-5.78*	2.65	-.900	1.12
Support of Implementation	-.200	.274	1.45	2.79	.620	1.06

*Note. Unstandardized coefficients; SE = standard error. \*  $p < .05$*