RESEARCH-TO-PRACTICE SUMMARY

Effects of a Professional Development Intervention on Preschool Teachers' Use of the Teaching Pyramid Model

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This research to practice paper summarizes a study on a coaching model that was used with three child care center teachers as they implemented strategies connected with three targeted items from the *Teaching Pyramid Model*, a comprehensive framework for supporting children's social and emotional development. Additional information is also provided concerning teacher attitudes toward the model and data on child social and emotional development. The coaching model was effective at improving teacher implementation of strategies.

Keywords: behavior, coaching, professional development, social and emotional skills, preschool

Over the past decade, literature concerning the importance of social and emotional health and behavior among young children has increased, with attention to school readiness and mental health outcomes being of major importance. Children with challenging behaviors have increased rates of preschool expulsion and suspensions, are more susceptible to peer rejection, experience elevated negative interactions in educational settings, and are at higher risk for continued social and emotional delays and future behavioral concerns (American Academy of Pediatrics [AAP] Council on Early Childhood, AAP Committee on Psychosocial Aspects of Child and Family Health, AAP Section on Developmental and Behavioral Pediatrics, 2016; Child Care Aware ® of America, 2015; Cooper, Masi, & Vick, 2009; Fantuzzo et al., 2007; Fox & Smith, 2007; Perry, Holland, Darling-Kuria, & Nadiv, 2011). Causes of these behaviors is multi-faceted but research has indicated that these behaviors tend to manifest in early childhood years and settings (Brown & Conroy, 2011; Perry et al., 2011). As such, this could lead to an increased need for those who work with young children (e.g., child care teachers) to understand child behavior; acquire knowledge of effective, evidence-based strategies and interventions; and receive targeted professional development and support around social-emotional and behavioral needs.

One framework, *The Teaching Pyramid Model* (Fox, Dunlap, Hemmeter, Joseph, & Strain, 2003), has been empirically shown to address challenging behaviors in young children.

The model was noted as, "one designed to promote social-emotional development and ameliorate behavioral concerns in young children that includes components that work at all ecological levels of the young child" (McCabe & Altamura, 2011, p. 553). *The Teaching Pyramid Model* is a multi-tiered intervention model that examines the following levels: (a) positive relationships with children, families, and colleagues; (b) classroom preventive practices; (c) social and emotional teaching strategies; and (d) intensive individualized interventions (Fox et al., 2003). This framework is meant to be implemented with fidelity, therefore technical assistance and training for those who will use *The Teaching Pyramid Model* is suggested (National Center for Pyramid Model Innovations, n.d.).

Several authors have found coaching and performance feedback to have positive effects on early childhood teachers' acquisition of skill and knowledge related to topics within the field (McCollum, Hemmeter, & Hsieh, 2011; Schachter, 2015). Further, Fox, Hemmeter, Synder, Perez Binder, and Clarke (2011) found increased participant implementation of strategies to be associated with *The Teaching Pyramid Model* in their research on use of coaching and performance feedback.

The study presented here extends the research findings on the positive effects of coaching and performance feedback with early childhood teachers when implementing *The Teaching Pyramid Model* in early childhood settings. It also assesses the relationship between use of the model and children's social-emotional outcomes.

Coaching and Performance Feedback

The coaching model utilized in this research consisted of action planning, feedback, and building new skills (Hemmeter, Fox, & Snyder, 2014; Lentini & Fox, 2008). Before coaching could begin, each teacher was observed and scored on a standardized rating scale developed to compliment implementation of *The Teaching Pyramid Model* known as the *Teaching Pyramid Observation Tool* (TPOT; Hemmeter, Fox, & Snyder, 2014). These observations occurred with each teacher within their respective early childhood settings over a 2-hr period with a teacher interview afterwards. TPOT scores were analyzed and the coach met with each teacher to discuss scores. Teachers were asked to identify one low scoring item as the focus for the intervention.

This intervention model: initial planning, observations, coaching, and performance feedback occurred each week until the teacher met the criterion set forth for the study which was a score of 80% for each teacher on his/her target item from the TPOT for three consecutive observations. Over the course of the week, each teacher had his/her initial planning meeting with the coach (20-30 minutes), observations (60-90 minutes), coaching that occurred while observing in the classroom, and performance feedback (30 minutes).

The initial planning meeting consisted of the coach and teacher creating a professional development plan for the week related to the target item on the TPOT. The coach would assist the teacher in reflecting on practices used from the previous week by using active listening (e.g., "What I hear you saying is…) and open-ended questioning (e.g., Why do you think this didn't work?). A professional development plan would be created and/or added on to and included action steps and materials/supports/resources needed to successfully implement strategies associated with the target TPOT item. The meeting would end with a recap of what was discussed and what would take place over the course of the week.

Focused observation occurred once a week. The coach acted as observer, data collector, and guide during these sessions. The coach provided feedback and used modeling to assist the teacher in implementing the strategies discussed in the planning meeting.

Performance feedback concluded the week. The performance feedback consisted of highlighting strengths, showing progression of goals from the professional development plan, and providing suggestive feedback where strategies were presented for increasing the TPOT score. Plans would be made to meet again the following week to begin the process over.

Additionally, researchers conducted a pre- and post-test of the *Ages & Stages Questionnaire-Social and Emotional* (ASQ-SE; Squires, Bricker, & Twombly, 2002) with six children, 2 from each teacher's classroom, to determine if social and emotional development was positively affected by the implementation of teaching practices connected with the *Teaching Pyramid Model*.

This study demonstrated that the intervention model, coaching plus performance feedback, led to higher teacher implementation rates of TPOT strategies. Teacher feedback on the intervention model showed that all teachers found it beneficial and indicated they would not have been able to implement *The Teaching Pyramid Model* with ease without the coaching and performance feedback. Further, child data showed that four of the six children had reduced challenging behaviors post intervention.

Implications for Professional Development and Research

The results of this study imply that additional work is needed in several areas: (a) early childhood professional development, (b) research on teacher implementation of strategies associated with young children's social-emotional development and behavior, and (c) impact of strategies used on child outcomes. Those working with young children, especially in early childhood settings, need ongoing, targeted training that builds on their current knowledge and skill related to social-emotional development and behavior. As such the professional development offered needs to carry over into the classroom by providing teachers with on-site supports as they transfer knowledge learned from the professional development and refine their skill development in the classroom.

This study demonstrated that when teachers have that on-site support to assist with knowledge transfer, teachers felt confident and supported in trying new strategies, thus leading to a more knowledgeable and skilled early childhood workforce. In this respect, coaching and performance feedback could be key in helping teachers: (a) target what is not working, (b) understand why those strategies are not working, (c) develop a plan to change, and (d) implement those evidence-based strategies that do work. This type of professional development allows teachers to focus on best practice to prevent, identify, and/or intervene when behaviors occur.

A practical example might include assigning "coaches" within the early childhood setting who have expertise in certain topics (e.g., curriculum, behavior, classroom set up) to work with teachers on areas of need. These coaches could be peers, administration, and/or technical assistance providers and together the coaches and teachers would strategize; create professional development plans, as described in this study; conduct observations; and engage in performance feedback that includes reflection. Teachers and coaches work in unison to plan, implement, and reflect on best practice for young children. This type of focused professional development could be key to increasing instructional competency and professionalism in the field.

In addition to enhancing the knowledge and skill of early childhood teachers is the need for understanding and tracking the impact on child outcomes. The child data from this study showed reduced challenging behaviors from pre- to post-intervention for majority of children included. Results imply that intentional professional development with teachers could positively impact child behavioral outcomes. Assessment data that tracks child development in areas such as social-emotional development and behavior could assist "coaches" and teachers in understanding the impact of teaching practices on child behavior and development. Using a valid and reliable assessment tool in addition to the coaching and performance feedback could further strengthen the implementation of evidence-based practices with young children.

These research findings indicate that coaching deserves more research particularly around teacher skill acquisition and implementation of practices in early childhood settings to meet the diverse needs of children and teachers within those settings. Additionally, child assessment data should be collected to further indicate impact of strategies used in the classroom, especially concerning behavior.

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