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Social and Emotional Foundations for Early Learning: A Conceptual Model for Intervention

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Abstract. Over the last several years, there has been an increased focus on school readiness and supporting children during the preschool years to learn the skills they need to be successful in elementary school and beyond (Bowman, Donovan, Burns, et al., 2000; Shonkoff & Phillips, 2000). The capacity to develop positive social relationships, to concentrate and persist on challenging tasks, to effectively communicate emotions, and to problem solve are just a few of the competencies young children need to be successful as they transition to school. In this article, we describe the *Teaching Pyramid* (Fox, Dunlap, Hemmeter, Joseph, & Strain, 2003), a model for promoting young children's social-emotional development and addressing children's challenging behavior and its link to critical outcomes for children, families, and early childhood programs. The *Pyramid* includes four components: building positive relationships with children, families, and colleagues; designing supportive and engaging environments; teaching social and emotional skills; and developing individualized interventions for children with the most challenging behavior. Given the unique characteristics of early childhood settings, implementation issues and implications of the model are a primary focus of the discussion.

Researchers and practitioners have described key social-emotional skills that children need as they enter school, including self-confidence, the capacity to develop positive relationships with peers and adults, concentration and

persistence on challenging tasks, an ability to effectively communicate emotions, an ability to listen to instructions and be attentive, and skills in solving social problems (Bowman, Donovan, Burns et al., 2000; Shonkoff & Phillips, 2000).

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These competencies are considered critical to children's success as they transition into school, yet research has found that approximately 10–15% of typically developing preschoolers will have chronic mild to moderate levels of behavior problems (Campbell, 1995), and this percentage is even greater among children from families who are poor (Qi & Kaiser, 2003). In addition, children with disabilities are at increased risk for exhibiting behavior problems.

A longitudinal study found that students with disabilities exhibit more than three times the number of serious behavior incidents than typically developing students (U.S. General Accounting Office, 2001). Data from the National Early Intervention Longitudinal Study, which studies infants and toddlers, indicate that 10 to 40% of the children included in the study were identified as having behavioral challenges (U.S. Department of Education, 2001). Based on prevalence figures, this means that within a preschool setting serving children with and without disabilities, there could be as many as a third of the children with significant problem behavior and even more who are at risk for problem behavior.

The early emergence of behavior difficulties and the potential number of children exhibiting difficult behavior creates a challenge in promoting social and emotional competence in early childhood settings. Of the children who engage in problem behavior at a young age, it has been estimated that fewer than 10% receive appropriate services for these difficulties (Kazdin & Kendall, 1998). To meet the needs of the range of children who are served in early childhood settings, a model is needed that focuses on supporting the social-emotional development of all children and on preventing and addressing challenging behavior. The purposes of this article are (a) to identify important outcomes of an early childhood intervention model designed to support social and emotional development; (b) to describe a multitiered intervention model, the *Teaching Pyramid*, for addressing these outcomes; and (c) to provide a detailed discussion of issues associated with implementing such a model in early childhood settings.

Establishing the Need for a Comprehensive Intervention Approach for Supporting Social-Emotional Development in Early Childhood Settings

The short- and long-term consequences of behavioral difficulties are numerous. Children who are identified with aggressive behavior in preschool have a high probability of continuing to have difficulties in elementary school and beyond; the correlation between preschool-age aggression and aggression at age 10 is higher than that for IQ (Kazdin, 1985). Young children with challenging behavior are often rejected by their peers (Coe & Dodge, 1998), receive less positive feedback from teachers (Strain, Lambert, Kerr, Stagg, & Lenkner, 1983), and are less likely to be successful in kindergarten. In addition, these children are at risk for school failure (Kazdin, 1993; Tremblay, 2000). When aggressive and antisocial behavior persists to age 9, intervention has a poor chance of success (Dodge, 1993).

There are multiple factors that potentially contribute to the development of child behavior difficulties. At the *individual child level*, early predictors of problem behavior include temperamental difficulties, aggression, language difficulties, and noncompliance (Stormont, 2002). *Family* factors that are associated with problem behaviors in young children include maternal depression, harsh parenting, stressful family life events, limited social support, and family instability (Brooks-Gunn, Duncan, & Aber, 1997; Harden et al., 2000; Spieker, Larson, Lewis, Keller, & Gilchrist, 1999; Stormont, 1998). Finally, a number of studies have linked low-quality *early childhood settings* to poor child outcomes related to social-emotional development (Helburn et al., 1995; National Research Council, 2001). Given the multiple influences on the early development of problem behavior in young children, an intervention model is needed that addresses critical outcomes at the child, family, and program levels.

Because increasing numbers of children spend time in early childhood settings (Lom-

bardi, 2003), an intervention model that can be implemented by early childhood professionals has the potential to influence the social and emotional development of large numbers of children with diverse needs. Early childhood settings often include children who have disabilities and children who are at risk for school failure based on certain family or developmental characteristics. In addition, there will likely be children who do not fit either one of these profiles but for whom support of their social and emotional development is critical from a prevention perspective. This suggests the need for a multitiered intervention approach that includes universal strategies for supporting the social and emotional development of all children, secondary strategies for supporting children who are at risk, and targeted strategies for children with the most intensive needs, much like those being implemented in elementary and secondary settings (Walker & Shinn, 2002). Currently, there are limited data on the use of a multitiered approach in early childhood settings, and although research in this area is growing, it is important to note that this article focuses on the conceptual underpinnings of such a model to promote social and emotional foundations for early learning in all young children as opposed to presenting evidence of the model's effectiveness.

Critical Outcomes of Interventions to Support Social and Emotional Development

A critical step in designing interventions for young children is identifying the outcomes that can be expected as a part of that intervention. Positive child, family, and program outcomes have been documented following the implementation of interventions that address young children's social-emotional development and challenging behaviors. At the child level, a decreased incidence of withdrawal, aggression, noncompliance, and disruption (Strain & Timm, 2001) and increased academic success (Walker et al., 1998) have been documented. Peer relationships have improved as a result of interventions that have focused on facilitating children's friendships,

cooperation, and sharing behaviors (Denham & Burton, 1996). Other important child outcomes include increased self-control, self-monitoring, and self-correction (Webster-Stratton, 1990). Further, evidence indicates that when families receive training on social-emotional development as a supplement to the use of appropriate curriculum in early childhood settings, the effect on children is significantly greater than use of the curriculum alone, suggesting, perhaps, change in family child-rearing behaviors (Webster-Stratton et al., 2001, 2004). Finally, a recent study on preschool expulsion found that when early childhood professionals had access to ongoing consultation about behavior, expulsion rates were significantly lower, indicating teachers were better equipped to handle challenging behavior and children remained in the classroom (Gilliam, 2005). Thus, social-emotional and behavioral interventions have resulted in changes in children, families, and programs.

At the child level, social-emotional interventions should target children's ability to communicate their emotions in appropriate ways, regulate their emotions, solve common problems, build positive relationships with the peers and adults in their environments, and engage in and persist in challenging tasks. These types of behaviors are essential for preparing children for social and academic success as they transition from early childhood settings to formal schooling.

For families, interventions should focus on helping families identify the skills and supports the child needs to engage in daily routines in home and community settings. Engaging families as active participants in their children's education during preschool is an important outcome likely to have positive ramifications for their continued involvement as children move into K-12 school settings.

Relevant outcomes for programs include increased competence and confidence of teachers and staff related to handling difficult behavior and promoting social-emotional development for all children, administrative support for teachers, ongoing training and individualized technical assistance for teachers, and clearly defined procedures for accessing

behavior support personnel for children with the most persistent behavior problems. A potential indirect outcome of supporting early childhood professionals' concerns about behavior is an increase in their ability to address other early learning outcomes to a greater degree, better preparing them for success in kindergarten.

Thus, implementing a multitiered intervention model has the potential to enhance outcomes at the child, family, and program levels. For example, Tabors's (1997) work on understanding behaviors related to second-language acquisition can assist teachers and other professionals in distinguishing between a challenging behavior and behaviors associated with learning a new language (i.e., withdrawal), thus helping professionals effectively support children's overall development and feel more confident and competent in doing so. This understanding aids in establishing positive relationships with all children in an early childhood program (Level 1 of the *Teaching Pyramid* described later). Practices that focus on teaching children routines and expectations, giving clear directions and feedback, and arranging the social and physical environment lead to higher levels of child engagement and fewer problem behaviors (Level 2 of the *Teaching Pyramid*). Research suggests that positive social skills used with peers can lead to the development of positive peer relationships, acceptance, and friendships (Landy, 2002). Work by Strain, Kohler, Storey, and Danko (1994) demonstrates that when self-management procedures (Level 3 of the *Teaching Pyramid*) are carefully implemented, positive changes in child behavior can be expected. Implementing evidence-based strategies discussed in the top level of the *Teaching Pyramid* (i.e., teaching replacement skills) results in positive behavioral changes depending on the efficiency with which a replacement skill is taught, the consistency with which training is implemented, and the length of time the child has engaged in the challenging behavior (cf. Halle, Ostrosky, & Hemmeter, 2006). Thus, implementing a multitiered model has the potential to enhance young children's social-emotional competence and de-

crease challenging behavior, outcomes clearly related to school readiness. In addition, positive family and program outcomes support a multitiered model that has breadth and depth in meeting a range of individual needs.

Approaches to Supporting Social-Emotional Development and Preventing Challenging Behaviors in Young Children

There are several multitiered approaches outside the field of early childhood education that can guide the design of interventions for supporting the social and emotional development of all young children. Public health models incorporate universal strategies for addressing the needs of all members of a population, secondary strategies for supporting at-risk groups as a means of preventing a condition, and tertiary strategies for those individuals who have a diagnosed condition or need that requires more intensive interventions (Commission on Chronic Illness, 1957). Although the levels have been traditionally referred to as *primary*, *secondary*, and *tertiary*, recent applications of this model to school-based intervention efforts have referred to the levels as *universal*, *selected*, and *targeted*. This three-tiered approach has been applied to the prevention and intervention of behavior problems in K-12 schools (Horner, Sugai, Todd, & Lewis-Palmer, 2005; Walker et al., 1996; Walker & Shinn, 2002). It includes the implementation of universal intervention practices to support all students, secondary intervention practices to address the needs of children who are at risk, and targeted interventions for children who present the most persistent challenges (Colvin, Kamennui, & Sugai, 1993; Lewis & Sugai, 1999; Walker et al., 1996). This model has been effective at reducing problem behavior and increasing academic learning time (Horner et al., 2005; Nelson, Martella, & Marchand-Martell, 2002).

More specific to early childhood, Brown, Odom, and Conroy (2001) present a conceptual framework based on a hierarchy of interventions to promote peer social competence in natural environments. Brown and his

colleagues discuss five empirically validated intervention strategies for young children who have peer interaction problems: developmentally appropriate practices and inclusive early childhood programs (i.e., Atwater, Carta, Schwartz, & McConnell, 1994), affective interventions for improving attitudes (i.e., Favazza & Odom, 1997), incidental teaching of social behavior (i.e., McGee, Almeida, Sulzer-Azaroff, & Feldman, 1992), and social integration activities (i.e., Frea, Craig-Unkefer, Odom, & Johnson, 1999). These intervention strategies represent a hierarchy in the sense that some of the strategies are necessary for all children while others are designed for children with more significant needs. The importance of individualizing peer interaction interventions for young children in natural environments is emphasized in this hierarchical model.

Similar tiered models as they relate to the preschool population are discussed elsewhere in this series. Each of these models is consistent with a response to intervention model described by Fuchs and Fuchs (1998) and translated for use in early childhood settings by Coleman, Buysse, and Neitzel (2006). The recognition and response system proposed by Coleman and her colleagues is based on the premise that "parents and teachers can learn to recognize critical early warning signs that a young child may not be learning in an expected manner and to respond in ways that positively affect a child's early school success" (p. 3). This system includes the following four components: (a) an intervention hierarchy; (b) screening, assessment, and ongoing monitoring; (c) research-based curriculum, instruction, and focused interventions; and (d) a collaborative problem-solving process for decision making. Advancing evidence-based concepts from theory to practice is no easy task, and models such as response to intervention and the recognition and response system provide some initial ideas for accomplishing this important task specifically as it relates to young children.

Table 1 outlines several early childhood curricula or intervention programs that represent different levels of a tiered model for ad-

ressing social and emotional development in young children. That is, some of the programs are perceived as universal interventions, some as secondary strategies for at-risk children, and some as individualized interventions. There is some empirical evidence about the effectiveness and implementation of these programs to teach social skills to young children and prevent or address challenging behavior; the strength of the evidence varies by program or approach (see Joseph & Strain, 2003, for a review). These are important resources, but they lack the systematic and comprehensive approach reflected in multitiered models. Even though these curriculum and intervention approaches reflect different levels of a tiered model, there are no data yet on a systematic classroom-based approach that includes universal, secondary, and targeted strategies. Although they can be implemented in combination with a multitiered approach, they are often conceptualized as stand-alone programs. As such, they are unlikely to achieve prevention and intervention goals at the universal, secondary, and targeted levels.

In the following section, we describe a conceptual model that incorporates all levels of a multitiered approach, evidence-based practices associated with each level of intervention, and issues related to the implementation of this model in early childhood settings.

The Teaching Pyramid: A Promotion, Prevention, and Intervention Model

The *Teaching Pyramid* (see Figure 1) reflects a three-tiered model of classroom strategies for promoting the social-emotional development of all children and addressing the needs of children who are at-risk for or who have challenging behavior (Fox, Dunlap, Hemmeter, Joseph, & Strain, 2003). The model is designed to be implemented by classroom personnel with support from behavior or mental health consultants and is based on two primary assumptions. The first assumption is that there is a relationship between children's social-emotional development, communication skills, and problem behavior. Children who know how to solve social problems, have

Table 1
Early Childhood Social-Emotional Curriculum and Approaches

Program	Intended Target	Program Components	Outcomes
I Can Problem Solve (Shure & Spivack, 1980, 1982)	Universal	Small group or individualized teacher implemented lessons	Increase problem solving skills; reduce problem behaviors
Al's Pals (Geller, 1999)	Universal	Teacher training; group lessons	Reduce problem behavior
Second Step (McMahon, Washburn, Felix, Yakin, & Childrey, 2000)	Universal	Group training including discussion, modeling, and role play	Reduce problem behavior; increase social behaviors
Living with a Purpose Self-Determination Program (Forness, Serna, Kavale, & Nielsen, 1998)	Universal	Group lessons using stories and role playing	Increase adaptive skills; reduce problem behaviors
The Incredible Years (Webster-Stratton, 2000)	Selected	Child treatment program, parent training program, teacher training series, and a classroom curriculum	Increase problem solving and conflict management skills; decrease problem behavior
First Steps to Success (Walker et al., 1997, 1998)	Selected	Screening to identify target children, behavior consultant, classroom intervention, home-based program	Increase adaptive skills and on task behavior; decrease aggression
Positive Behavior Support (Dunlap & Fox, 1996)	Targeted	Person-centered approach based on an assessment of the function of behavior, development of behavior support plans that include prevention strategies, instructional strategies, and response strategies	Increase prosocial skills; reduce problem behavior

well-developed social and communication skills, understand the expectations of their environments, and can regulate their emotions are less likely to engage in problem behavior. Second, to address the needs of all children in early childhood settings, professionals need a

range of strategies. While promotion and prevention strategies will be adequate for addressing most problem behaviors, a small number of children will engage in persistent problem behavior in spite of these efforts. A more systematic approach will be needed to

address their problem behavior. The goal of the model is to support all children's social-emotional development and reduce the intensity or likelihood of significant problem behavior.

The *Teaching Pyramid* incorporates effective behavior support and instructional practices that are based on research on (a) effective instruction for young children (National Research Council, 2001), (b) strategies for promoting children's social-emotional development (Guralnick & Neville, 1997; Hyson, 2004; Webster-Stratton, 1999), and (c) the implementation of individualized positive behavior support for children with the most severe behavior challenges (Fox, Dunlap, & Cushing, 2002; Fox, Dunlap, & Powell, 2002). The *Pyramid* includes four levels of practices that address the needs of all children, including children with persistent, challenging behavior. These practices are arranged using a response to intervention framework (Coleman et al., 2006; Fuchs, Mock, Morgan, & Young, 2003; VanDerHeyden & Snyder, 2006; VanDerHeyden, Witt, & Barnett, 2005).

The first two levels (i.e., relationships, designing supportive environments) are universal approaches that should be delivered to all children in a classroom, the third level (i.e., social-emotional teaching strategies) includes secondary interventions designed to address the needs of children at risk for problem behavior, and the fourth level provides an individualized intervention approach for children with the most severe and persistent challenging behavior. The *Teaching Pyramid* model is premised on a strengths-based approach in that it (a) is designed to be used in settings in which all young children spend time, (b) is based on promoting the social emotional competence of all children, (c) focuses on building positive relationships with families as a context for supporting children's social-emotional development, and (d) involves all relevant caregivers to ensure that approaches are ecologically valid and feasible (Power, 2003).

The four components of the model and the rationale for each are described as follows, with attention given to how each of the com-

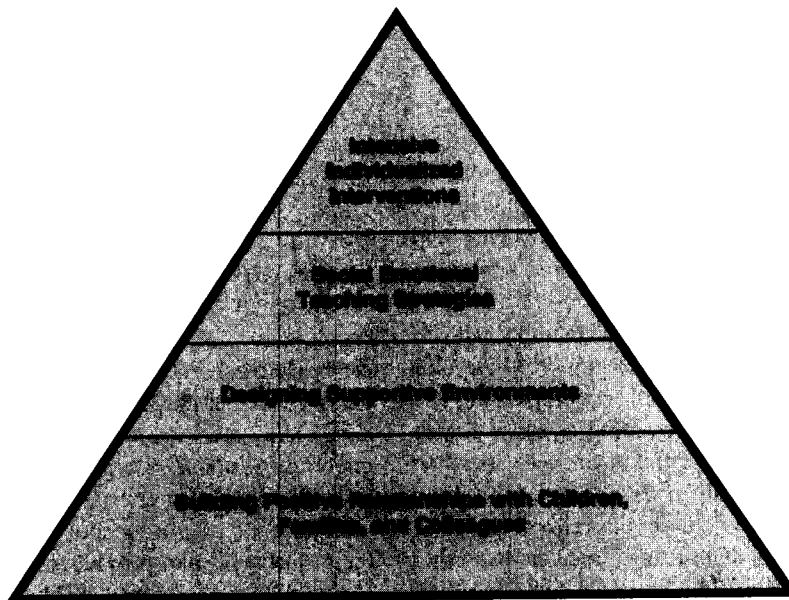


Figure 1. The Teaching Pyramid model. (From "The Teaching Pyramid: A Model for Supporting Social Competence and Preventing Challenging Behavior in Young Children," by L. Fox, G. Dunlap, M. L. Hemmeter, G. Joseph, and P. Strain, 2003, *Young Children*, 58(4), pp. 48–53. Reprinted with permission.)

ponents is related to critical outcomes for children, families, and programs. The components of the model are highlighted in Table 2 along with sample practices associated with each component of the *Pyramid*, the research that supports their use, and critical outcomes associated with each component.

Level 1: Relationships

Relationships with children, families, and colleagues are critical to effectively supporting young children's social-emotional development (Christenson, 1995). Children's relationships with adults provide a secure foundation for emotional development (Pianta et al., 1995) and provide opportunities for children to learn important social skills and develop self-confidence, self-esteem, and other emotional competencies (Bredenkamp & Copple, 1997). Within secure relationships, children can learn about the effect of their behaviors on others and begin to understand that their behavior provides them with some control over the environment (Hyson, 2004).

To establish relationships with children, professionals must learn about each child's unique attributes, abilities, and preferences including an understanding of the child within his or her family and community. Central to the *Teaching Pyramid* model is the importance of building relationships with families before problem behavior occurs, so that interactions related to a child's challenging behavior happen in the context of an ongoing supportive relationship (Garrison & Reynolds, 2006). It also is important to provide families with information about how to support their children's social-emotional development. Evidence shows that when families receive training on social-emotional development in addition to the implementation of appropriate curricula in early childhood settings, the effect on children is significantly greater than when the same curriculum is implemented without training and support for families (Webster-Stratton et al., 2001, 2004).

Families and other adults are important influences in children's social-emotional development. Therefore, an intervention model

designed to support social-emotional development must consider the multiple spheres of influence and the adults in those contexts. Building relationships with families is essential to promoting meaningful, positive, and systemic change for young children. These partnerships may, in turn, increase the likelihood that intervention programs will be culturally sensitive, foster the use of naturally occurring community resources, and reduce any stigma that may be involved in receiving services (Fantuzzo, McWayne, & Bulotsky, 2003). Further, there is ample evidence that family involvement in a variety of forms is associated with more positive outcomes for children (cf. Fantuzzo, McWayne, Perry, & Childs, 2004). Building home-school relationships is especially critical during the early childhood years. The early childhood years represent the family's first contact with schools and provide an opportunity to build meaningful relationships with families that can provide a foundation for children's later school success. These relationships provide parents with the support and confidence they need to be more involved in school-related activities. From an ecological perspective, an effective approach to addressing young children's social-emotional development and challenging behavior must include collaboration between children's caregivers across multiple environments (Garrison & Reynolds, 2006).

As with families, relationships between professionals are critical to supporting children's social-emotional development and addressing challenging behavior. It is helpful to establish these relationships as a preventive measure so that they are in place when a more significant need arises. Programs that have ongoing relationships with mental health consultants or behavior specialists, or that include professionals such as school psychologists on their staff who can provide similar supports, can work together to promote children's social-emotional competence in addition to providing intervention consultation. A recent study on preschool expulsion found that when early childhood professionals had access to ongoing consultation around behavior, expulsion rates

Table 2
Evidence-Based Practices and the Supporting Research Associated with Each Level of the Teaching Pyramid

Level	Component	Practices	Evidence	Potential Outcomes
Universal	Relationships	Support children's play; respond to child conversations; support the communication attempts of children with special needs; provide specific praise and encouragement of appropriate behavior; build relationships with children, families, and colleagues	Birch & Ladd, 1998; Bodrova & Leong, 1998; Cox, 2005; Howes & Hamilton, 1992, 1993; Howes & Smith, 1995; Kontos, 1999; Mill & Romano-White, 1999; National Research Council, 2001; Peisner-Feinberg et al., 2000; Pianta, Steinberg, & Rollins, 1995	Increased frequency of interactions between children and adults; increased child engagement
	Designing supportive environments	Provide adequate materials; defined play centers; balanced schedule (large and small group); structured transitions; individualized instructions for children who need support; teach and promote small number of rules; design activities that are engaging to children; provide clear directions	DeKlyen & Odum, 1998; Frede, Austin, & Lidauer, 1993; Holloway & Reichart-Erickson, 1988; Jolivette, Webby, Canale, & Massey, 2001; National Research Council, 2001; Peisner-Feinberg et al., 2000	Decreased frequency of challenging behaviors during transitions; increased child engagement with materials and peers
Secondary	Social-emotional teaching strategies	Teach children to identify and express emotions; teach and support self-regulation, self-determination, social problem solving; teach and support strategies for handling anger and disappointment; teach and support cooperative responding, friendship skills, and collaboration with peers; partner with families in teaching social-emotional skills	Coie & Koeppl, 1990; Denham & Burton, 1996; Mize & Ladd, 1990; National Research Council, 2001; Schneider, 1974; Serma, Nielsen, Lambros, & Forness, 2000; Shure & Spivack, 1980; Vaughn & Ridley, 1983; Webster-Stratton & Hammond, 1997; Webster-Stratton, Reid, & Hammond, 2001	Increased frequency of problem-solving, increased evidence of social skill use by peers with social interaction skill deficits
	Individualized interventions	Convene a team to develop interventions; collect data to determine the nature of the problem behavior; develop individualized behavior support strategies; implement behavior support plan with consistency; conduct ongoing monitoring of child progress; revise plan when needed; partner with families and other colleagues in plan implementation	Blair, Umbreit, & Bos, 1999; Carr et al., 1999; Duda, Dunlap, Fox, Lentini, & Clarke, 2004; Dunlap & Fox, 1999; Kamps, Ellis, Maucina, Wyble, & Greene, 1995; Kern, Ringdahl, Hilt, & Sterling-Turner, 2001; Strain & Timm, 2001; Walker et al., 1998	Decreased use of challenging behaviors, increased use of more appropriate communication behaviors

were significantly lower (Gilliam, 2005). This type of ongoing consultation is an important component of both prevention and intervention efforts.

Level 2: Designing Supportive Environments

Children are less likely to engage in problem behavior when they know what to do, how to do it, and what is expected. This component of the *Pyramid* includes practices that focus on teaching children about routines, giving clear directions, and arranging the environment to support engagement and appropriate behavior (Strain & Hemmeter, 1999). Environments that are engaging, predictable, and characterized by ongoing positive adult-child interactions are necessary for promoting children's social and emotional development and preventing challenging behavior. Research shows that early childhood settings rated high on the quality of the social and physical environments were associated with more positive social outcomes and a reduction in problem behavior for young children (Burchinal, Peisner-Feinberg, Pianta, & Howes, 2002).

Promotion and prevention practices, discussed in detail in a number of publications, relate to the following environmental characteristics: physical setting, schedules, routines, transitions, activity type and size, adaptations and modifications, behavioral expectations, and teacher behaviors (Kaiser & Raminsky, 2003; Lawry, Danko, & Strain, 1999; Neilsen, Olive, Donovan, & McEvoy, 1999; Sainato & Carta, 1992; Sandall et al., 2002; Strain & Hemmeter, 1999).

Level 3: Social and Emotional Teaching Strategies

Researchers have found that prosocial behaviors often do not occur naturally in pre-school classrooms (Eisenberg & Fabes, 1998); children's problem behavior is often the result of deficits in social and communication skills and in emotional competencies. Creating a caring, socially rich, cooperative, and responsive environment requires an intentional and systematic approach. When children are able

to persist at difficult tasks, communicate their emotions effectively, control their anger, and problem solve, they are less likely to engage in problem behavior. The third component of the *Teaching Pyramid* focuses on strategies for teaching skills such as these (Joseph & Strain, 2003; Webster-Stratton, 1999).

An intentional approach to teaching social skills and supporting emotional development requires the use of a range of strategies that include teaching the concept, modeling, rehearsing, role-playing, prompting children in context, and providing feedback and acknowledgment when the behavior occurs (Grisham-Brown, Hemmeter, & Pretti-Frontczak, 2005; Landy, 2002; Webster-Stratton, 1999). Teacher-directed activities provide an ideal context for introducing, modeling, and role-playing new skills. Free-play activities provide opportunities for children to practice new skills and get feedback from adults and peers. In addition, some children may need individualized one-on-one instruction (Brown et al., 2001).

Research on effective strategies for teaching social skills indicates that for instruction to be most effective it must be comprehensive. The most successful social-emotional approaches focus on social skills and emotional development on a daily basis, use a systematic, intentional approach for teaching critical skills, and acknowledge the skills in context (Joseph & Strain, 2003). These successful approaches also provide training and support to parents or other caregivers who can then support their children's behavior at home (Webster-Stratton, 1999). This type of comprehensive approach is critical given the effect of children's social-emotional development on their development in other areas and their transition to and later success in school.

Level 4: Intensive, Individualized Interventions

Even when universal and secondary practices are in place, a few children, including those with behavioral diagnoses (e.g., autism, behavior disorders), may engage in challenging behavior. These children will need an

individualized plan based on an understanding of their behavior. Researchers have found that 5–33% of children in preschool settings have significantly challenging behaviors that require a more intensive approach (Lavigne et al., 1996; Qi & Kaiser, 2003; West, Denton, & Germino-Hausken, 2000). For children with recurrent challenging behavior, a systematically designed and consistently implemented plan is needed.

Individualized positive behavior support (PBS; Fox, Dunlap, & Cushing, 2002; Fox, Dunlap, & Powell, 2002; Koegel, Koegel, & Dunlap, 1996; Powell, Dunlap, & Fox, 2006; U.S. Department of Education, 2001) constitutes the fourth level of the *Pyramid* model. PBS involves identifying (a) environmental factors (e.g., interactions, activities) that trigger and maintain behavior; (b) the function of the behavior; (c) more appropriate behaviors or skills to replace the challenging behavior (e.g., social skills, communication skills); and (d) a behavior support plan that includes strategies for reducing the likelihood that the behavior will occur, instructional strategies for replacement skills, and strategies for responding to the child in a way that supports the development and use of the skills (Fox, Dunlap, & Cushing, 2002). It is essential that at this more intensive level of intervention, a plan for addressing a young child's challenging behaviors should be comprehensive, developmentally appropriate, and developed in partnership with families and other relevant people in the child's life, including professionals, family members, and other adults who interact with the child on a regular basis (e.g., child care providers, related services staff, mental health consultants). The effectiveness of this approach depends on consistent implementation across the child's everyday environments (e.g., Dunlap & Fox, 1996; Walker et al., 1998) and the provision of support and training to parents (Webster-Stratton, 1999) and other caregivers responsible for implementing the plan.

Although PBS has been described and used extensively with older children, its use in early childhood programs will require consideration of some key issues. Many young chil-

dren spend time in multiple settings on any given day. For example, some young children may attend a prekindergarten program in the morning and a child care program in the afternoon in addition to other settings such as home, church, and other community-based activities. Thus, it will be important to consider this range of settings and the skills of caregivers in each of those environments when developing a behavior support plan for the child. Another consideration in implementing PBS with young children is the developmental nature of problem behavior in young children. Many problem behaviors in young children reflect developmentally expected behaviors, behaviors associated with lack of experience in group settings, and behaviors associated with skill deficits, particularly in the areas of language, communication, and cognitive and social development. Understanding these issues will be important in developing a behavior support plan that not only works for the child but also works in the multiple environments in which young children spend their time.

Implementing successive levels of strategies can solve many of the social and behavioral problems observed within early childhood settings. When teachers implement the universal and secondary strategies of the *Pyramid*, only a very small percentage of the children are likely to need more intensive support (Sugai et al., 2000). The practical implications of a prevention model include effective and efficient use of teachers' time and resources, the provision of an approach that addresses the needs of all children within a classroom, and the positive effects on children's social-emotional development and challenging behavior. The conceptual framework and practical implications of the *Teaching Pyramid* build on the premise that most solutions to challenging behaviors are likely to be found by examining adult behavior and overall classroomwide practice, thus preventing problems before they arise rather than waiting until children have problems and singling them out for specialized, high-intensity interventions. Psychiatrist Carl Jung reminds us, "If there is anything we wish to change in

the child, we should first examine it and see whether it is not something that could better be changed in ourselves" (n.d.). There are evidence-based practices that are effective in changing the developmental trajectory of young children who engage in persistent challenging behavior—the problem is not what to do, but rests in ensuring access to intervention and support for all children.

Issues in Implementing the Teaching Pyramid

The evidence-based practices described at each level of the *Teaching Pyramid* reflect many of the practices described in other intervention programs (e.g., *Incredible Years, Second Step*), but extend the work by providing a comprehensive framework for classroom implementation at all levels concurrently. Further, the *Teaching Pyramid* is similar to other multitiered models, but the extent to which it reflects the characteristics of early childhood settings and young children makes it unique. Although the *Teaching Pyramid* has both conceptual and empirical support at each level, the challenge is in ensuring that it can be implemented effectively in early childhood settings as a comprehensive approach to supporting social and emotional development in all children.

High-quality, developmentally appropriate environments are critical to supporting children's social-emotional development and addressing challenging behavior. Yet, there is evidence that the interventions and practices described as part of the *Teaching Pyramid* are often not implemented in early childhood settings (Helburn et al., 1995; Howes, Phillips, & Whitebrook, 1992; National Research Council, 2001). Further evidence about the limited implementation of these practices in early childhood settings comes from Gilliam's (2005) study on preschool expulsion, noting that children in state-funded prekindergarten programs were 6 times more likely to be expelled than children in kindergarten through Grade 12. Although this rate was lower when teachers had access to ongoing behavioral consultation, a majority of participants re-

ported that they did not have access to these professionals. In addition, a number of researchers have identified challenging behavior as a primary training need of early childhood professionals (Buscemi, Bennett, Thomas, & Deluca, 1995; Hemmeter, Corso, & Cheatham, 2006), indicating that early childhood educators often do not feel prepared to handle challenging behaviors effectively.

These findings suggest that the quality and expertise necessary to address the range of social-emotional needs of young children is often missing. To build the capacity of programs to meet the needs of young children with challenging behaviors, an approach is needed that includes not only training and support for teachers but also access to expertise in behavior support as well as administrative supports and policies. A promising approach to addressing the social-emotional needs of all young children is a program-wide model of behavior support that includes training and individualized support for teachers in their adoption of evidence-based approaches to promote social competence and address challenging behavior, policies related to ensuring that all children can be successful in the program, procedures for addressing the needs of children with the most challenging behavior, and administrative supports for all staff and families.

Much research has been conducted over the last 10 years on program-wide approaches to behavior support (Sugai & Horner, 2002; Sugai et al., 2000). School-wide PBS was developed as a strategy for approaching behavior from a systems perspective in which systems and procedures are established to promote children's appropriate social behaviors as well as to address the needs of children with more significant behavioral issues (Lewis & Sugai, 1999; Sugai, Sprague, Horner, & Walker, 2000; Taylor-Greene et al., 1997). Research on the adoption of school-wide PBS has resulted in decreases in problem behavior as well as in-school and out-of-school suspensions; this research has also resulted in increases in instructional time (Horner et al., 2005; Lewis, Sugai, & Colvin, 1998; Nelson et al., 2002; Scott, 2001; Turnbull et al., 2002).

Table 3
Steps to Implementing a Program-wide Model of Behavior Support in Early Childhood Settings

1. **Ensure Administrative Support and Commitment**—Every program will need a “champion” to make this work. It is important to recognize that across different types of early childhood settings, administrators will have differing levels of training and experience related to education in general and, more specifically, they will have varying levels of expertise around social-emotional development and challenging behavior.
2. **Establish a Behavior Support Team**—The team should include classroom staff, administrators, family members, and behavior support specialists. The behavior support team will be responsible for guiding the adoption and implementation of the program-wide model. Many early childhood programs will not have behavior support staff available. As part of this process, the programs will need to identify a consultant or staff member who can serve in this role. This person may need significant training prior to beginning implementation.
3. **Develop a Plan for Getting Commitment from Program Staff**—All staff should buy in to the initiative including classroom, administrative, and other program staff (e.g., cooks, janitors, related services).
4. **Develop Opportunities for Family Involvement in All Aspects of the Initiative**—Ensure that families are involved in the plan for adopting the model, identifying strategies for sharing the information with families, and evaluating the success of the model. When working with families of young children, it will be important to remember that this may be the family’s first experience with the educational system.
5. **Identify Program-wide Expectations for Children’s Behavior**—Identify a small number of expectations that can be used across settings within the school. Ensure that they are appropriate for the developmental levels of the children in the program. Remember that children who are 3 years old may have a difficult time understanding what it means to “be respectful.” It will be important to translate these into examples that young children can understand.
6. **Develop Strategies for Teaching Expectations and Acknowledging Children’s Behavior**—Select strategies that are developmentally appropriate and that can be used throughout the program. Strategies should be embedded into ongoing classroom activities such as circle time and centers.
7. **Develop a Process for Addressing the Needs of Children with Ongoing Challenging Behavior**—Develop a process that is efficient, effective, and accessible to teachers. Consider who will facilitate this process and how they will be trained if they do not have the expertise.
8. **Design a Plan for Training and Supporting Staff**—This should include a plan for training, ongoing technical assistance in the classroom, and acknowledging teachers’ successes in classroom implementation of the *Teaching Pyramid* model. This plan should consider the prior training and expertise of the staff.
9. **Collect and Use Data for Decision Making**—The behavior support team should identify how data will be collected to guide implementation efforts, make decisions about program needs and effectiveness, and monitor outcomes associated with the model. This may be a complex process given the extent to which data are generally collected in early childhood settings. Further, most early childhood settings do not have a common measure (e.g., office discipline referrals) that can be used as a general measure of the success of the model.

However, relatively little work has been done on program-wide approaches to behavior support in early childhood settings or with chil-

dren under kindergarten age in school-based settings.

Table 3 provides an overview of the

steps involved in implementing a program-wide approach to behavior support in early childhood settings (Hemmeter, Fox, Jack, & Broyles, 2006). Work on school-wide applications of behavior support provides a framework for a system of supports in early childhood settings, but there are characteristics of early childhood settings that must be considered when designing a model for use in these settings (Stormont, Lewis, & Beckner, 2005). These characteristics relate to the structure and philosophy of the settings, the resources and expertise related to behavior that are available in early childhood settings, and the developmental needs of children under age 6.

Young children are served in a variety of settings including Head Start, child care, and public schools. These settings vary in terms of the training and experience of staff, staff-child ratios, and access to behavioral or mental health expertise. Although teachers across different early childhood service delivery systems report challenging behavior to be a high-priority training need (Hemmeter et al., 2006), the type of training teachers will need may vary because of differences in prior training and experience. Whereas most teachers working in public school prekindergarten programs are required to have a teaching certificate, teachers in Head Start may be required to only have a child development associate credential. Further, teachers in child care programs may have no training or expertise in working with young children. Some teachers may need training on basic child development issues, while others may be ready for more sophisticated training on individualized interventions for children with the most challenging behavior. Staff-child ratios will also vary across different early childhood settings. Head Start programs and public school preschool programs are more likely to have other staff in addition to those in child care programs. The extent to which many of the practices associated with the *Teaching Pyramid* can be implemented will vary based on the number of adults who are available in the classroom. Preschool children cannot be expected to work independently while the teacher works intensively with one or two children. Finally, al-

though public preschools and Head Start programs may have access to a behavior specialist or mental health consultant, many child care programs do not have the expertise, or resources for expertise, related to behavior and mental health. Thus, developing a program-wide model in a child care program will require looking beyond the program to community resources that might be available such as community mental health providers, child care resource and referral agencies, and school psychologists.

A second issue that may influence how a program-wide model is implemented in early childhood settings is the developmental ages and needs of the children. The cognitive abilities of the children as well as the developmental nature of behavior in young children should be considered when designing an approach. For example, the extent to which a token system will work in an early childhood setting will be affected by the cognitive level of the children. That is, in early childhood settings that serve children with and without disabilities, there are likely to be children who are functioning at a developmental level similar to that of an infant or toddler and for whom a token system would not work. Further, many early childhood teachers will resist the use of token systems because they view them as being inconsistent with developmentally appropriate practice (Bredekamp & Copple, 1997).

Building systems and processes to support teachers, other direct service staff, and families will be critical to the long-term success of early childhood programs in promoting young children's social-emotional development and addressing challenging behavior. When supporting young children's social-emotional development and addressing challenging behavior, professionals must take into account cultural relevance and unique family characteristics that affect perceptions, beliefs, and values (Barrera, Corso, & Macpherson, 2003).

Strategies must be designed based on an understanding of each child's behavior in relevant contexts. The most successful interventions are those implemented across a variety of

settings. Involving the family and other relevant caregivers in all aspects of interventions is critical in ensuring that interventions can and will be implemented in the child's daily environments. To adequately address the social-emotional needs of young children, professionals from a variety of disciplines must work together with families to create supportive early childhood environments and to develop individualized interventions when children have significant ongoing problem behavior or social-emotional needs.

Individually- and culturally-based beliefs affect one's attitudes and developmental expectations about social-emotional competence and challenging behavior (i.e., what skills children are expected to engage in independently at certain ages, how children are expected to interact with adults). In building positive relationships with families, different perspectives may emerge about what behaviors are valued and encouraged; there is a possibility that families' perspectives, beliefs, and values about child guidance and discipline may vary from professionals' perspectives of recommended practices in early education. Beginning the dialogue whereby families and professionals learn from and with one another is a first step in the implementation of a multitiered approach to supporting young children's social-emotional competence and decreasing the incidence of challenging behavior.

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