



# TACSEI & CSEFEL Pyramid Model Partnership

Promoting Social Emotional Competence in *All* Young Children



# Implementing the Pyramid Model: *Foundational Readings*

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# The Teaching Pyramid

## A Model for Supporting Social Competence and Preventing Challenging Behavior in Young Children

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**M**any early educators report feeling ill equipped to meet the needs of children with challenging behavior and frustrated in their attempts to develop safe and nurturing classroom environments. These teachers spend much of their time addressing the behaviors of a few children, leaving little time to support the development and learning of the other children.

Increasing evidence suggests that an effective approach to addressing problem behavior is the adoption of a model that focuses on promoting social-emotional development, providing support for children's appropriate behavior, and preventing challenging behavior (Sugai et al. 2000). In this article we describe a framework for addressing the social and emotional development and challenging behavior of young children. This pyramid framework includes four levels of practice to address the needs of all children, including children with persistent challenging behavior (see "Teaching Pyramid"). The following example demonstrates how to implement this model in a preschool classroom.

**Emma, a preschool teacher of two- and three-year-olds, takes time to greet every child and parent on arrival. She talks to the child briefly about the upcoming day or events at home. Emma is committed to building a nurturing and supportive relationship with every child in her class [Level 1].**

**The classroom is carefully arranged to promote children's engagement and social interaction. When children have difficulty, Emma first examines the environment to make sure that the**

**Good relationships are key to effective teaching and guidance in social, emotional, and behavioral development.**

problems are not due to classroom arrangement or the structure of an activity [Level 2].

A few children in the class seem to need instruction on playing with peers, coping with anger and disappointment, and using social problem solving. Emma uses a curriculum that includes strategies and activities for teaching specific social skills, and she is confident

that this helps those children make progress [Level 3].

Although most of the children are doing quite well in her classroom, Emma worries about her ability to meet the needs of one child who often screams and hits the other children. With the help of the director, Emma contacts the child's home and begins working with the family to develop an individualized behavior support plan that can be implemented at home and in the classroom [Level 4].

### **Building positive relationships**

The foundation of an effective early education program must be positive, supportive relationships between teachers and children

as well as with families and other professionals (Bredekamp & Copple 1997; Joseph & Strain in press). Good relationships are key to effective teaching and guidance in social, emotional, and behavioral development. Simply put, there are two reasons why early childhood educators need to invest time and attention in getting to know children.

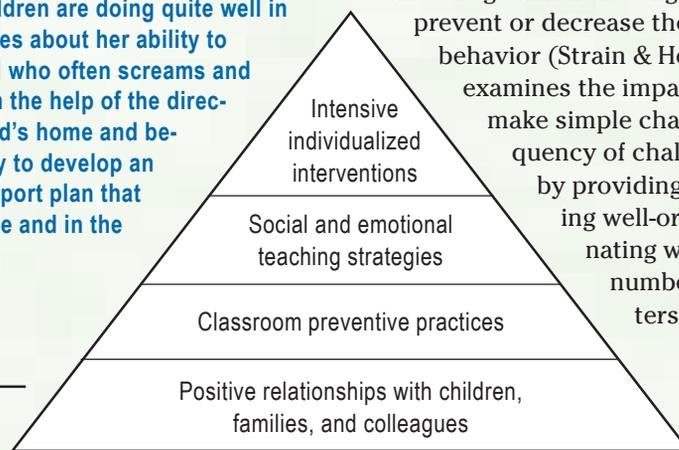
First, as adults build positive relationships with children, their potential influence on children's behavior grows significantly—that is, children notice responsive, caring adults. Children pay particular attention to what such a teacher says and does, and they seek out ways to ensure even more positive attention from the teacher.

Second, in the context of supportive relationships, children develop positive self-concept, confidence, and a sense of safety that help reduce the occurrence of challenging behavior. As such, the time spent building a strong relationship is probably less than the time required to implement more elaborate and time-consuming strategies.

### **Implementing classroom preventive practices**

The critical importance of the classroom environment, including adult-child interaction, is well established in early education (Dodge & Colker 2002). Many early childhood educators are aware of the relationship of classroom design to challenging behavior. They use classroom preventive practices, including specific adult-child interactions and classroom design, to support development and use of appropriate behavior.

The combination of giving children positive attention for their prosocial behavior, teaching them about routines and expectations, and making changes in the physical environment, schedule, and materials may encourage children's engagement in daily activities and prevent or decrease the likelihood of challenging behavior (Strain & Hemmeter 1997). A teacher who examines the impact of the environment may make simple changes that reduce the frequency of challenging behavior (for example, by providing children with choices, creating well-organized learning centers, eliminating wide-open spaces, limiting the number of children in learning centers, and so on).



### **The Teaching Pyramid**

**A model for supporting social competence and preventing challenging behavior in young children**

### **Using social and emotional teaching strategies**

Many children need explicit instruction to ensure they develop competence in emotional literacy, anger and impulse control, interpersonal problem solving, and friendship skills (Webster-Stratton 1999). Key emotional literacy skills include being able to identify feelings in self and others and act upon feelings in appropriate ways.

Discriminating among emotions such as anger, sadness, frustration, and happiness requires a vocabulary of feeling words. Young children can be taught new and complex feeling words directly through pairing

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## Practical Strategies for Building Positive Relationships

- Play, following the child's lead.
- Have families complete interest surveys about their child.
- Greet every child at the door by name.
- Have a conversation over snack.
- Conduct home visits several times a year.
- Listen to a child's ideas and stories and be an appreciative audience.
- Send home positive notes.
- Offer praise and encouragement.
- Share information about yourself, and find something in common with the child.
- Ask children to bring in family photos, and give them an opportunity to share them with you and their peers.
- Post children's work at their eye level.
- Have a Star of the Week who brings in special things from home and gets to share them during circle time. Make sure everyone has a turn.
- Acknowledge children's efforts.
- Give compliments liberally.
- In front of a child, call the family to say what a great day she or he is having.
- Find out what a child's favorite book is and read it to the whole class.
- Let the children make personal "All about Me" books, and share them at circle time.
- Write on a T-shirt all the special things about a given child and let him or her wear it around.
- Play a game with a child.
- Play outside with a child on the playground equipment.
- Ride the bus with a child.
- Go to an extracurricular activity with the child.
- Learn some of the key phrases in each child's home language.
- Give hugs, high-fives, and a thumbs-up for accomplishing tasks.
- Hold a child's hand.
- Call aside a child who has had a bad day and say, "I'm sorry we had a bad day today. I know tomorrow is going to be better!"
- Tell children how much they were missed when they are absent for a day of school.

**Key emotional literacy skills include being able to identify feelings in self and others and act upon feelings in appropriate ways.**

pictures of emotional expressions with the feeling word and reading children's literature featuring feeling words. Playing games provides practice, as in Feeling Face Bingo, in which children find the picture of an emotion on a bingo card that matches the emotion named by the game leader. Children also learn when family and teachers label the children's emotions as well as their own throughout the day. Over time, children will match feeling words with their physiological sensations and the emotions of others.

Controlling anger and impulse includes being able to recognize anger, understand that anger can interfere with problem solving, and use strategies to calm down instead of acting out. Problem solving includes recognizing when a problem exists, generating multiple alternative solutions, evaluating the consequences of solutions, acting on a solution, and then evaluating how effective the solution was. Friendship skills include sharing and turn taking, making suggestions in play, requesting and receiving help, giving compliments, and dealing effectively with common peer problems such as teasing or bullying.

As in all areas of instruction, effective teaching in this domain requires careful planning, individualization, provision of many and diverse learning opportunities throughout the day, and attention to children when they are engaged in socially competent behavior such as following directions, helping their friends, participating in dramatic play with peers, and sharing.

### Planning intensive individualized interventions

Even when teachers establish positive relationships, implement classroom preventive practices, and use explicit teaching strategies, a few children are likely to continue to display challenging behavior. In the last decade, research has demonstrated that *positive behavior*

support (PBS) is a highly effective intervention approach for addressing severe and persistent challenging behavior.

As an approach for addressing a child's problem behavior, PBS is based on research and humanistic values. It offers a method for identifying the environmental events, circumstances, and interactions that trigger problem behavior, the purpose of problem behavior, and the development of support strategies for preventing problem behavior and teaching new skills (Fox, Dunlap, & Cushing 2002). The focus of PBS is to help the child develop new social and communication skills, enhance relationships with peers and adults, and experience an improved quality of life.

Intensive individualized interventions are planned and implemented by a team for application in home, early education, and community environments. The team includes classroom staff, the child's family, and other professionals who may be supporting the teacher, child, or family (for example, mental health consultant or social worker). Once established, the team completes a functional assessment (a process of observing the child in key situations, reviewing the child's records, interviewing caregivers and teachers, and analyzing the collected information) to identify the factors related to the child's challenging behavior.

The functional assessment leads to the development of a behavior support plan that includes prevention strategies, techniques for teaching new skills, and

changes in responses to the challenging behavior. The team implements the plan at home and in the classroom and monitors changes in the problem behavior and the development of social skills and other child outcomes.

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## A systemic approach

The teaching pyramid represents a hierarchy of strategies. Implementing successive levels solves more of the social and behavioral problems experienced in classroom settings. Providing a warm and responsive environment in which teachers work hard to build positive relationships with all children can prevent many problem behaviors and provides the foundation for the next levels of the pyramid (see the model "Teaching Pyramid"). To support other children's meaningful participation in daily routines and activities, teachers may need to put in place classroom preventive practices involving more structure and feedback. A few children may need a well-planned, focused, and intensive approach to learning emotional literacy, controlling anger and impulse, interpersonal problem solving, and friendship skills.

When the three lower levels of the pyramid are in place, only about four percent of the children in a classroom or program will require more intensive support (Sugai et al. 2000). The key implication here is that most solutions to challenging behaviors are likely to be found by examining adult behavior and overall classroom practice, not by singling out individual children for specialized intervention. This is good news for teachers who are eager to provide all children with a high-quality early education experience.

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# Prevention and Intervention With Young Children's Challenging Behavior: Perspectives Regarding Current Knowledge

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*ABSTRACT: Challenging behavior exhibited by young children is becoming recognized as a serious impediment to social-emotional development and a harbinger of severe maladjustment in school and adult life. Consequently, professionals and advocates from many disciplines have been seeking to define, elaborate, and improve on existing knowledge related to the prevention and resolution of young children's challenging behaviors. Of particular concern for the field of behavioral disorders is the lack of correspondence between what is known about effective practices and what practices young children with challenging behavior typically receive. To increase the likelihood that children receive the best of evidence-based practices, the current analysis was conducted to provide a concise synthesis and summary of the principal evidence pertaining to the presence and impact, prevention, and intervention of challenging behaviors in young children. A consensus building process involving review and synthesis was used to produce brief summary statements encapsulating core conclusions from the existing evidence. This article presents these statements along with descriptions of the strength of the supporting evidence. The discussion addresses directions and priorities for practice and future research.*

■ In the past 10 years, professionals from various disciplines have expressed alarm regarding the implications of serious challenging behaviors exhibited by young children (e.g., Shonkoff & Phillips, 2000). Increasingly, it is understood that serious and persistent challenging behaviors in early

childhood are associated with subsequent problems in socialization, school adjustment, school success, and educational and vocational adaptation in adolescence and adulthood (e.g., Campbell 1995; Dodge, 1993; Kazdin, 1985; Reid, 1993). As a result, numerous authors, as well as official reports (e.g., New Freedom

Commission on Mental Health, 2003), have noted the importance of identifying, preventing, and resolving challenging behaviors in young children as early in their development as possible. Unfortunately, there remains limited understanding across professionals, disciplines, and service systems regarding what is known about early challenging behaviors and what can be done with respect to prevention and intervention.

Part of the professional reticence pertaining to challenging behaviors is that many behavioral topographies (e.g., tantrums) that are considered challenging in elementary school students are developmentally typical in early childhood. Without a clear delineation of the window during which more mature topographies are expected to emerge, it can be difficult to distinguish serious problems from typical developmental progressions. Still, the growing acknowledgment that early challenging behaviors can have serious long-term consequences has led to more concerted efforts to define and resolve early challenging behaviors. Working from existing definitions (e.g., Division for Early Childhood of the Council for Exceptional Children, 1999), Smith and Fox (2003) recently defined challenging behavior as “any repeated pattern of behavior, or perception of behavior, that interferes with or is at risk of interfering with optimal learning or engagement in pro-social interactions with peers and adults” (p. 5).

In addition to the complexities associated with defining and identifying challenging behaviors, there are similar difficulties in understanding what can be done to prevent challenging behaviors from developing in the first place and, once identified, what can be done via intervention to divert the challenging behaviors to more socially adaptive developmental trajectories. Although important research on prevention and intervention has been conducted, a clear message is lacking regarding what is known and what can be done. Moreover, there is a regrettable disparity between what is known about prevention and intervention and the typical service

delivery experienced by young children with challenging behavior (Shonkoff & Phillips, 2000). It is our contention that correcting this disparity begins with a concise, coherent, and strong set of messages from the field.

In the past few years, a number of federally funded projects<sup>1</sup> have been established to help guide the process of developing and disseminating effective prevention and intervention practices for young children with challenges in social, emotional, and behavioral development. For instance, the Center for Evidence-based Practice: Young Children with Challenging Behaviors (Dunlap, Fox, Smith, & Strain, 2002) was created as a national consortium of research, training, and dissemination efforts focused on enhancing the knowledge base pertaining to challenging behaviors. The center, via its web site ([www.challengingbehavior.org](http://www.challengingbehavior.org)) and journal publications, has disseminated a framework for conceptualizing prevention and intervention efforts (e.g., Fox, Dunlap, Hemmeter, Joseph, & Strain, 2003) as well as a number of articles summarizing portions of the empirical literature (e.g., Conroy, Dunlap, Clarke, & Alter, 2005; Joseph & Strain, 2003; Powell, Dunlap, & Fox, 2006). The center's dissemination agenda has been greatly facilitated by a network of national associations<sup>2</sup> that has functioned to spread a unified message about evidence-based practices and challenging behaviors. In pursuing widespread dissemination, however, it has become increasingly apparent that a need exists for concise, clear, and empirically based statements regarding the current state of knowledge related to challenging behaviors, with an explicit focus on both prevention and intervention concerns. This article describes an effort undertaken by the center to address these issues. The purpose was to establish a concise, data-based summary of the most prominent features of current knowledge as they relate to the presence and impact and, in particular, intervention with and prevention of young children's challenging behaviors. The approach included reviews of the existing literature and a consensus building process intended

<sup>1</sup>Examples of federally funded projects include the Center on the Social and Emotional Foundations of Early Learning, funded by the Department of Health and Human Services, Head Start Bureau and Child Care Bureaus; and the Center for Evidence-based Practices of the Orleans-Hawk Puckett Institute, funded by the Office of Special Education Programs, U.S. Department of Education.

<sup>2</sup>Primary dissemination partners of the center include the Division for Early Childhood (DEC) of the Council on Exceptional Children; National Association for Bilingual Education (NABE), National Association for the Education of Young Children (NAEYC), National Association of Child Care Resource and Referral Agencies (NACCRRA), National Black Child Development Institute (NBCDI), and National Head Start Association (NHSA).

to synthesize current knowledge into brief summary statements that could prove useful for promoting increased awareness across multiple audiences, including researchers, advocates, policy makers, and professionals from diverse disciplines.

## Approach

### General Approach

The current analysis was undertaken to develop summary statements of existing knowledge that are based on empirical research and valid from the perspectives of various consumers (e.g., policy makers, families, researchers) concerned with conceptualizing, organizing, and delivering prevention and intervention services. Therefore, the focus of the information gathering and consensus building procedures was on practical descriptive, experimental, and quasi-experimental research that has undergone peer review. As research findings were reviewed and integrated into a larger picture, the data were examined across the dimensions of replicability, generality, and utility. The strength of support for observed phenomena was weighed in relation to internal validity, external validity, and social and ecological validity. To the greatest extent possible, the statements were considered in relation to cultural, ethnic, geographic, and economic representativeness. The approach involved reviewing the existing, peer-reviewed literature and developing summary statements through a process of consensus building.

The participants in the process included principal faculty, research associates, and training associates of the center. Participants represented primary collaborators with the center from the University of South Florida, University of Colorado at Denver, University of Kansas, Lehigh University, University of Florida, University of Illinois, Tennessee Voices for Children, and Pyramid Parent Training of New Orleans. Before initiating the review and consensus building process, participants agreed on a number of defining parameters.

*Focus of concern.* The focus of this examination was on the challenging behaviors of young children. Three content areas were identified: presence and impact; prevention; and intervention. The definition of challenging behavior presented earlier in this article (Smith & Fox, 2003) served as a general guide; however, it was recognized that the data sources used

to describe the empirical knowledge often relied on different definitions. Similarly, many of the studies considered in the analysis did not focus on challenging behaviors per se, but addressed correlates of challenging behavior such as disruptions and deviances in social-emotional development. "Young children" was defined as children from birth through age 5; however, most of data on challenging behaviors were obtained from studies of prevention and intervention for children 3 years of age and older. The analysis was limited to social, environmental, educational, therapeutic, and interactional variables that have been examined and described in peer-reviewed dissemination outlets. We did not consider medical and biological interventions in the analysis.

*Degrees of evidence.* In establishing criteria for empirically based knowledge related to prevention and intervention, we relied on the definition of evidence-based practices offered by Dunst, Trivette, and Cutspec (2002): *Practices that are informed by research, in which the characteristics and consequences of environmental variables are empirically established and the relationship directly informs what a practitioner can do to produce a desired outcome.* This definition allows for knowledge to be derived from studies involving a variety of methodologies and research designs. We incorporated data from experimental, other correlational, and descriptive investigations, recognizing that research designs are constrained by the nature of the research questions as well as ethical considerations. Our primary concerns regarding the presence of evidence were the credibility and magnitude of the data sources and the extent to which a preponderance of data clearly and consistently supported a discernable message related to the content areas.

### Literature Review and Consensus Building Procedures

*Reviews of the literature.* The first step in developing summary statements involved reviewing and synthesizing existing knowledge. We conducted exhaustive reviews of certain aspects of the literature and examined existing, authoritative documents that described reviews, positions, and consensus statements related to challenging behaviors of young children. Center faculty prepared three comprehensive syntheses of

knowledge. These are available on the center's website ([www.challengingbehavior.org](http://www.challengingbehavior.org)), and portions have been published in books and peer-reviewed journals (Conroy et al., 2005; Joseph & Strain, 2003; Powell et al., 2006). We also incorporated related reviews (e.g., Shonkoff & Phillips, 2000) and pertinent empirically based consensus documents (e.g., Sandall, Hemmeter, Smith, & McLean, 2005).

In general, the procedures for conducting the literature reviews involved the following steps. First, we searched data bases (ERIC, PsycINFO, Medline) using a variety of keywords pertinent to the areas of interest (e.g., prevention, intervention, challenging behavior, maladaptive behavior, discipline, social-emotional development, social skills). We then conducted hand searches using reference sections from source documents and perusing each issue of journals likely to include articles related to challenging behavior and young children (see Conroy et al. [2005] and Smith & Fox [2003] for lists of these journals). As a final check to guard against oversights and omissions, we used internet search engines (e.g., Google) to identify web sites that might include more recent research data and references, and we sent summaries of our findings to authorities in the field with a request that they point out any sources we may have overlooked.

*Consensus building.* To come to a group consensus on key statements specific to the presence and impact of challenging behavior, prevention of challenging behavior, and intervention with challenging behavior, we followed the following four-part process. Portions of the consensus building process took place during a center retreat in August 2004, with 16 participants in attendance. First, based on their own prior substantive work, their familiarity with literature reviews, and their current research interests and endeavors, center participants were asked to self-select one content area as their primary focus. Three content area teams were formed, consisting of four to six participants per team. Second, teams were asked to generate three to five summary statements for their content area. Specifically, teams were charged with capturing summary statements that could be supported by the most robust data available, by prior seminal review papers (e.g., *From Neurons to Neighborhoods*, Shonkoff & Phillips, 2000) and by prior consensus documents (e.g., Sandall et al., 2005). Third, summary statements were independently reviewed by the other two

teams. The instructions to "reviewers" asked that they edit statements for clarity and accuracy, mark statements that were considered to be inadequately supported by peer-reviewed data, and insert recommendations for additional statements that summarize important data-based knowledge. After all teams had reviewed and edited the summary statements, group meetings followed in which edits, additions, and deletions were discussed, and the entire group of participants eventually agreed that the statements accurately and completely represented their understanding of the pertinent literature.

### Summary Statements

The statements produced by the three teams, and finalized by the full group, are listed in *Table 1* and discussed in the following pages. The three sections correspond to the main content areas: presence and impact; prevention; and intervention. The statements are accompanied by explanation, citations designed to illustrate evidence and identify a sample of key sources, and some description of the strength of the supporting documentation.

## Presence and Impact of Challenging Behaviors

For well over four decades, researchers from a number of disciplines have conducted longitudinal and retrospective studies concerning the impact of challenging behavior on children's behavioral trajectories. It is noteworthy that these studies have been based on a wide variety of theoretical orientations and have used a wide variety of measurement methods and data analytic procedures. By and large, the data linking early appearing problem behavior to later developmental and social adjustment difficulties are correlational in nature. As such, appropriate caution should be taken when interpreting these data. Notwithstanding these differences and cautionary note, consistent findings have emerged, as evidenced by the major consensus statements that follow.

- (1) *When children with significant problems are neither identified in a timely way nor given appropriate education and treatment, their problems tend to be long lasting, requiring more intensive services and resources over time. Moreover, when the*

**TABLE 1**  
**Demographic Information of Participants**

<i>Summary Statement</i>	<i>Type of Empirical Support</i>
<b><i>Presence and Impact of Challenging Behaviors</i></b>	
1. When children with significant problems are neither identified in a timely way nor given appropriate education and treatment, their problems tend to be long lasting, requiring more intensive services and resources over time. Moreover, when the challenging behavior of young children is not addressed in an appropriate and timely way, the future likelihood increases for poor academic outcomes, peer rejection, adult mental health concerns, and adverse effects on their families, their service providers, and their communities.	This statement is derived from an aggregation of extensive peer-reviewed descriptive and correlational data pertaining to the prevalence of challenging behaviors and longitudinal outcomes.
2. Although some systems and tools for early identification of children with challenging behaviors are available, the actual identification of these children and provision of appropriate services are very low.	Descriptive data from state and federal service programs, and peer-reviewed articles describing service utilization.
<b><i>Prevention of Challenging Behaviors</i></b>	
1. Children and their families who access mental and physical care are less likely to have behavioral and social problems.	Peer-reviewed program evaluations and follow-up analyses of early childhood support programs.
2. Nurturing and positive parenting is associated with children who have healthy relationships and reduced challenging behavior.	Program evaluations of large-scale child care and home visiting services
3. High quality early education environments and caregiver interactions are associated with fewer behavior problems and the development of social competence.	Extensive peer-reviewed program evaluation data and longitudinal analyses of social outcomes.
<b><i>Intervention with Challenging Behaviors</i></b>	
1. Interventions based on a functional assessment of the relation between the challenging behaviors and the child's environment are effective for reducing challenging behaviors of young children.	Aggregation of descriptive, quasi-experimental, and experimental peer-reviewed studies using single-subject designs.
2. Teaching procedures have been demonstrated to be effective in developing children's skills and reducing challenging behaviors.	Aggregation of descriptive, quasi-experimental, and experimental peer-reviewed studies using single-subject designs.
3. Interventions involving alterations to features of the child's activities and the child's social and physical environment have been demonstrated to reduce challenging behaviors.	Aggregation of descriptive, quasi-experimental, and experimental peer-reviewed studies using single-subject designs.
4. Multicomponent interventions implemented over time and across multiple relevant environments can produce durable, generalized increases in prosocial behavior and reductions in challenging behaviors.	Aggregation of descriptive, quasi-experimental, and experimental peer-reviewed studies using single-subject designs.
5. Family involvement in the planning and implementation of interventions facilitates durable reductions in challenging behaviors of young children.	Quasi-experimental and experimental analyses, including single-subject and randomized control group designs. Numerous qualitative studies have supported this statement as well.

*challenging behavior of young children is not addressed in an appropriate and timely way, the future likelihood increases for poor academic outcomes, peer rejection, adult mental health concerns, and adverse effects on their families, their service providers, and their communities.*

On a day-to-day basis, it would appear

that children who engage in severe challenging behaviors represent the population of youngsters who are of greatest concern to primary caregivers and service providers (Strain & Timm, 1999). Of this larger group, those labeled as disruptive, noncompliant, aggressive, defiant, or oppositional predictably find their way to the top of the service provider's list of referrals, other placements, and "most

troubling." As Hobbs (1975) so aptly put, not everyone may agree that these children are disturbed, but their physical aggression, destruction of property, lying, and defiance indeed make them *disturbing*. That is not to diminish or discount their risk of school failure and, more significant, their risk of marginalized adult lives characterized by violence, abuse, loneliness, and anxiety (Coie & Dodge, 1998; McCord, 1978; Olweus, 1991). Perhaps there may be no other group of children for whom the "nontreated" or "poorly treated" developmental course is so certain and negative (Lipsey & Derzon, 1998; Patterson & Fleishman, 1979). For example, in a longitudinal post high school follow-up of students who had received special education services, the National Longitudinal Transition Study-2 (Wagner, Cameto, & Newman, 2003) reported the following results: (a) When children with the range of disability categories were compared, those with severe behavior disorders had the lowest grade point average. (b) Approximately 50% of the participants with severe behavior disorders in the NLTS study reported that they failed one or more courses in their most recent school year. (c) More than 66% of those participants failed the competency exam for their grade level. (d) Only one third of those participants completed high school. (e) And this subgroup had the highest dropout rate of any disability category. Moreover, abundant data suggest that there may be powerful, cross-generational patterns of severe problem behavior (Tremblay, 2000; Wahler & Dumas, 1986).

What is our current state of the knowledge related to the development and remediation of these severe behavioral problems? First, early appearing behavior problems in a child's preschool career are the single best predictor of delinquency in adolescence, school dropout, gang membership, adult incarceration, and early death (Loeber & Farrington, 1998; Reid, 1993). Consistent with these long-term data, the stability of challenging behavior in young children over a decade is equal to that for intelligence, with cross-year correlations of 0.80 (Kazdin, 1987). If challenging behavior toward others and property is not altered by the end of the third grade, it appears that it should be treated as a chronic condition, hopefully kept somewhat in check by continuing and ever more costly intervention (Dodge, 1993). It is also apparent that children with challenging behaviors who come from families characterized by coercive interactions are the most likely subgroup to grow into a life course

of antisocial behavior (Moffitt, 1993; Patterson, 1986).

These outcomes enumerated above clearly speak to the compelling national need for the widespread use of effective and sustainable prevention and intervention tactics. In fact, the national costs of unchecked challenging behavior are nearly impossible to calculate accurately because of its pervasive nature. For the child who engages in persistent challenging behavior and to all those with whom he or she interacts (family, peers, educators), the costs include (a) early and persistent peer rejection (Coie & Dodge, 1998; Strain, 1984), (b) mostly punitive contacts with teachers (Strain, Steele, Ellis, & Timm, 1982; Wehby, Symons, Canale, & Go, 1998), (c) family interaction patterns that *all* participants find to be unpleasant (Patterson, 1986; Patterson & Fleishman, 1979), (d) predictable school failure (Kazdin, 1985; Tremblay, 2000), and (e) lack of community integration (Carr et al., 1999; Lucyshyn, Dunlap, & Albin, 2002; Schalock, Baker, & Croser, 2002).

Although it is tempting to attribute (almost exclusively) the many long-term negative outcomes of challenging behavior to the children themselves, challenging behavior does not occur in a social vacuum. As enumerated earlier, macrolevel variables of poverty, community violence, and maternal depression can all play a large role in the genesis and stability of challenging behavior. For example, at the more micro school level, we know that students with severe challenging behaviors (a) are seldom praised for appropriate behavior (Wehby et al., 1998), (b) are seldom afforded effective academic instruction (Walker, Severson, & Feil, 1995; Wehby, Lane, & Falk, 2003), and (c) are often subject to ineffective, reactive, and punitive interventions from teachers (Shores, Gunter, & Jack, 1993).

(2) *Although some systems and tools for early identification of children with challenging behaviors are available, the actual identification of these children and provision of appropriate services are very low.*

Important progress has been made in the field's ability to identify children with and at risk for challenging behaviors (e.g., Bricker, Shoen Davis, & Squires, 2004; Squires & Nickel, 2003; Walker et al., 1995). There remains, however, very little actual identification and intervention for preschool children with challenging

behaviors. To be sure, a wide variety of factors contribute to the relative underidentification and lack of intervention for young children experiencing challenging behavior. Today, the best estimates indicate that 10% to 20% of the preschool population experiences significant challenging behaviors (Campbell, 1995; Lavigne et al., 1996; Webster-Stratton & Hammond, 1998). In all probability the rather large proportional differences in incidence rates can be attributed to different assessment methods and sample populations.

What is the evidence to support underidentification? Consider the following:

- Although Medicaid screening is mandated for more than 9 million eligible young children, fewer than one third receive a full EPSDT (Early and Periodic Screening, Diagnostic and Treatment), and even fewer receive a screen that includes behavioral health (Powell, Fixsen, & Dunlap, 2003; U.S. General Accounting Office, 2001b).
- More than one half of the states report that few or no behavioral health services are being offered under Medicaid (U.S. General Accounting Office, 2001a).
- Pediatricians, who are the primary and usually the first available point-of-contact for young children with challenging behavior, generally have neither the time nor the expertise to effectively detect and refer for behavioral issues (Holden & Schuman, 1995; Reikert, Stancin, Palermo, & Drotar, 1999).
- A number of studies following Head Start children suggest that there may be a bias against identifying children with behavioral problems (Fantuzzo et al., 1999; Forness et al., 1998; Sinclair, 1993).
- Child mental health utilization data suggest that only 1%–2% of preschoolers access any mental health services in a year (Sturm et al., 2001).
- Longitudinal research on children with special needs age birth through 2 years indicates a wide discrepancy between caregivers' rating of behavioral issues and eligibility based on social/behavioral concerns (Hebbeler et al., 2001).
- Underuse of mental health services is exacerbated by race and ethnicity (Kochanek & Buka, 1998; Sontag & Schacht, 1993; U.S. Department of Education, 2001).

## Prevention of Challenging Behaviors

A growing body of evidence supports the contention that a variety of child and family risk factors contribute to early onset conduct disorders which lead to more recalcitrant and intractable problem behavior as the child develops (Campbell, 1995; Huffman, Mehlinger, & Kerivan, 2000; Qi & Kaiser, 2003; Webster-Stratton & Taylor, 2001). Some of those risk factors include lack of prenatal care, low birth weight, maternal depression, early temperament difficulties in infants, developmental disabilities, early behavior and adjustment problems, and inconsistent and harsh parenting (see research summaries in Campbell, 1995; Huffman et al., 2000; Qi & Kaiser, 2003). In response to these findings, researchers have developed and demonstrated that prevention efforts that give families at risk with access to physical and mental health care reduce child social adjustment and behavior problems. The data specific to prevention are decidedly mixed, including some well-designed, randomized trials as well as correlational studies. From this research, we can determine the following:

- (1) *Children and their families who access mental and physical care are less likely to have behavioral and social problems.*

For example, data from a randomized study by the Nurse–Family Partnership (also known as the Nurse Home Visitation Program) show that the provision of prenatal and early intervention services until the child turned 2 years had the most impressive results with single, poor mothers who enrolled in the program. In this program, nurses made home visits with mothers, supporting parents in improving their health during pregnancy, providing nurturing care to their infants, and accessing assistance for improving economic self-sufficiency. A follow-up study conducted 15 years after intervention indicated lowered rates of child abuse or neglect and less reliance on public assistance by mothers. Moreover, children at age 15 had fewer instances of running away and fewer arrests and convictions (Olds et al., 1998). These findings have been replicated in the delivery of the program within other communities (Barnard et al., 1988; Kitzman et al., 1997; Larson, 1980). Research from these programs offers strong evidence that early intervention programs that offer early health

care to families at risk are effective in preventing child social maladjustment.

Healthy development for children includes not only the child's physical health status but also his or her emotional and social development. Parenting interactions are the primary and first mechanism for supporting the child's development of social and emotional competence. Thus, prevention programs have focused on supporting families at risk in the development of nurturing parenting skills.

- (2) *Children who experience nurturing and positive parenting are more likely to have healthy relationships and reduced problem behavior.*

A rigorous evaluation of Early Head Start offers data that support providing child and family development services to low-income families with infants and toddlers (Love et al., 2005). Data from the national evaluation of Early Head Start have shown that when families participated in the program, their children were more engaged with the parents and showed fewer negative interactions during structured play situations. In addition, children who participated in Early Head Start had less aggressive behavior than comparison children when assessed on the Child Behavior Checklist (Love et al., 2005). Early Head Start parents were observed to be more emotionally supportive of their children (at age 3) and provided more support for children's language development than parents in the control group. Of the three approaches used by Early Head Start, the strongest effects were for a mixed approach that combined both center-based and home-based services. It should be noted, however, that the magnitude of differences seen in the Early Head Start data set may be viewed as modest. Data from the Healthy Families America home visiting program also offer promising results for promoting positive parenting, improving child health, and preventing child abuse and neglect. Research from evaluations of the program provides evidence that families who participate in the program are less likely to be reported for abuse or neglect, show improvements in parenting skills, and have better interactions with their children in addition to receiving all childhood immunizations and well-care check-ups (Daro & Harding, 1999).

- (3) *Children who experience high quality early education environments and caregiver interactions are more likely to have better*

*social competence outcomes and fewer behavior problems.*

About 61% of young children (birth to age 6) spend part of their day in some kind of out of home care or early education environment (Federal Interagency Forum on Child and Family Statistics, 2002). When these programs meet the definition of high quality (i.e., quality environments, caregiving interactions, and child/adult ratios), the child's social and behavioral development is supported (Howes, Phillips, & Whitebrook, 1992; Love, Meckstroth, & Sprachman, 1997; Peisner-Feinberg et al., 1999). High quality classroom environments are related to greater child interest and participation and lower levels of behavior problems (Hausfather, Tohari, LaRoche, and Engelsmann, 1997; Howes, 1988; Peisner-Feinberg & Burchinal, 1997; Phillips, McCartney, and Scarr, 1987). The Cost, Quality, and Child Outcomes in Child Care Study produced data on the longitudinal effects of child care quality. This research began in 1992–1993 and followed 862 preschoolers. The outcomes analysis revealed evidence for a modest, continued influence on child skills and abilities into second grade. For problem behavior, they found that teacher–child closeness in the early childhood years had a predictive relationship to problem behavior and sociability in the second grade, with children who experienced higher teacher–child closeness demonstrating higher levels of social and behavioral competence (Peisner-Feinberg et al., 2000). The importance of caregiver relationships is demonstrated in multiple studies where researchers have found a relationship between positive caregiver interactions and prosocial skills and positive peer interactions (Holloway & Reichert-Erickson, 1988; Howes et al., 1992; Kontos & Wilcox-Herzog, 1997).

## **Intervention With Challenging Behaviors**

In this article, intervention refers to procedures that caregivers can use to reduce the challenging behaviors of individual young children. The statements presented are general summations derived from considerable research, primarily though not exclusively in the form of single-subject experimental analyses. Although the data from these studies show large, functional effects of intervention

components, the number of participants and the process by which they are selected raise some concerns about the generality of findings. The summaries do not address specific manualized programs, though some of these have clearly documented effectiveness (cf. Joseph & Strain, 2003). Furthermore, it is important to acknowledge that almost all of the studies cited involve preschool-age children as participants (and some include somewhat older children as well), and almost no direct research has involved the intervention needs of infants and toddlers.

(1) *Interventions based on a functional assessment of the relation between the challenging behaviors and the child's environment are effective for reducing challenging behaviors of young children.*

Challenging behaviors in young children most often are predictable responses to specific antecedent and consequent events occurring in their environment. Functional assessment is the process of gathering information on the antecedent and consequent events that are associated with the occurrence of challenging behavior, as well as the motivational purpose, or function, of the behavior (O'Neill et al., 1997). When these environmental variables are identified, it is possible to develop interventions that are individualized on the basis of the assessment information. For instance, interventions may be developed to modify antecedent events (e.g., the delivery of requests, the presence of materials, the presence of particular peers or adults), modify consequences (e.g., a teacher's attention, a break from an activity), or provide instruction on specific communication or social interaction skills (e.g., teaching the child to make requests). Evidence suggests that interventions that address the function of the children's challenging behaviors are more durable and effective than nonfunction-based interventions (Newcomer & Lewis, 2004).

Considerable research exists supporting the use of functional assessment with young children who engage in challenging behaviors. Typically, research investigating the use of the functional assessment process includes a combination of descriptive and experimental analyses that identify specific antecedents or consequences in the child's environment. Once these environmental variables are identified, an intervention that addresses these variables is implemented to reduce the

challenging behavior and increase appropriate behaviors (e.g., Andorfer, Miltenberger, Woster, & Rortvedt, 1994; Blair, Umbreit, & Eck, 2000; Galensky, Miltenberger, Stricker, & Garlinghouse, 2001; Harding et al., 1999; Kern, Ringdahl, Hilt, & Sterling-Turner, 2001; Koegel, Stiebel, & Koegel, 1998; Lawry, Storey, & Danko 1993; Lohrmann-O'Rourke & Yurman, 2001; McGoey, DuPaul, Eckert, Volpe, & Van Brakle, 2005).

(2) *Teaching procedures have been demonstrated to be effective in developing children's skills and reducing challenging behaviors.*

One of the reasons young children engage in challenging behaviors is that they lack necessary language or social skills. For instance, a young child who has communication deficits may lack the appropriate language skills to request attention from an adult. Rather than asking for attention, the child "acts out" to solicit the adult's attention. Teaching young children skills that can be used to *replace* challenging behaviors is one of the most effective, scientifically based interventions available for these behaviors (for a review see Conroy et al., 2005). Not only is teaching replacement behaviors one of the most effective ways to reduce the occurrence of challenging behaviors, it is also an essential part of a comprehensive behavioral intervention plan.

Approaches that include teaching children appropriate replacement skills or alternative skills, often referred to as functional communication training, have been investigated by a number of researchers (e.g., Andorfer et al., 1994; Dunlap, Ester, Langhans, & Fox, 2006; Durand & Carr, 1992; Reeve & Carr, 2000). Additionally, other teaching strategies that increase the use of appropriate behaviors have also been effective in decreasing challenging behaviors, such as teaching self-management skills (e.g., Grandy & Peck, 1997; Kern et al., 2001; Storey, Lawry, Ashworth, Danko, & Strain, 1994) and peer-related social skills (Chandler, Dahlquist, Repp, & Feltz, 1999).

(3) *Interventions involving alterations to features of the child's activities and the child's social and physical environment have been demonstrated to reduce challenging behaviors.*

One scientifically based strategy for preventing the occurrence of challenging behaviors is to alter the features of children's social and physical environments. Rather than directly intervening on the challenging behavior, antecedent-based interventions *increase the probability* that appropriate behaviors will occur and *reduce the probability* that challenging behaviors will occur. As a result, there are more opportunities to reinforce appropriate behaviors. As appropriate behaviors are reinforced, indirectly, these interventions may lead to a decrease in the challenging behavior.

There is a strong literature base investigating the use of antecedent-based interventions that alter young children's social or physical environments. A number of research studies have investigated the use of *choice* as an intervention strategy (e.g., Dunlap et al., 1994; Dyer, Dunlap, & Winterling, 1990; Kern et al., 1998, 2001). Additionally, researchers have found embedding *preference* into difficult activities to be an effective intervention strategy (e.g., Lohrmann-O'Rourke & Yurman, 2001; Umbreit & Blair, 1997). Finally, changes in classroom environmental arrangement and instructional variables, such as rearranging furniture, implementing activity schedules, and altering instructions, have been found to effectively decrease the probability of challenging behaviors and increase the probability of appropriate behaviors (Chandler et al., 1999; Dooley, Wilczenski, & Torem, 2001; Martens, Eckert, Bradley, & Ardoin, 1999).

- (4) *Multicomponent interventions implemented over time and across multiple relevant environments can produce durable, generalized increases in prosocial behavior and reductions in challenging behaviors.*

Many scientifically based intervention strategies for decreasing challenging behaviors in young children incorporate multicomponent interventions. Most often, these multicomponent interventions include both antecedent interventions that decrease the likelihood of the challenging behaviors, such as the use of choice or preference, and consequence-based strategies that directly decrease the occurrence of the challenging behavior itself.

Ample evidence validates the effectiveness of multicomponent interventions for use with

young children engaging in challenging behaviors. One of the most comprehensive studies was conducted by Chandler and her colleagues (1999) and involved multicomponent interventions, including environmental classroom arrangement, implementation of classroom schedules, and modification of teacher instructions across 15 classrooms serving preschool age children. Other researchers have developed individualized, multicomponent interventions that have included the manipulation of both antecedent and consequent events (Conroy et al., 2005).

- (5) *Family involvement in the planning and implementation of interventions facilitates durable reductions in challenging behaviors of young children.*

One of the primary axioms of early childhood intervention is that family members, as principal caregivers, have a significant role in the social, emotional, and behavioral development of children; and therefore, family involvement is a major ingredient in the success of intervention and support programs. This position has been manifested in numerous ways over the past decades. For instance, great emphasis has been placed on parent training and family support as mechanisms for resolving challenging behaviors (Dangel & Polster, 1984; Lucyshyn et al., 2002), and parent involvement and family support have been mandated as necessary ingredients of service delivery for infants and toddlers with disabilities under Part C of the Individuals with Disabilities Education Act (IDEA).

Interventions that have provided families with behavioral techniques for teaching young children behavior expectations and social skills, using positive reinforcement, teaching compliance, and addressing challenging behavior have resulted in impressive outcomes (Brestan & Eyberg, 1998; Eyberg, Boggs, & Algina, 1995; Sanders & McFarland, 2000; Webster-Stratton, 1992; Webster-Stratton & Hammond, 1997; Webster-Stratton & Reid, 1999; Webster-Stratton & Taylor, 2001). Randomized experimental evaluations of these efforts have demonstrated that systematic parent training efforts can result in changes in parent skill development and their child's challenging behavior.

In addition to the literature that illustrates the feasibility and effectiveness of training parents to implement behavioral interventions

(see Dangel & Polster, 1984; Singer, Goldberg-Hamblin, Peckham-Hardin, Barry, & Santorelli, 2002), there are qualitative studies that strongly convey the value and effectiveness of parent involvement (e.g., Turnbull & Ruef, 1996), long-term follow-up studies showing the potential for durable benefits following early family-centered intervention (e.g., Strain & Timm, 2001), and several comprehensive reviews that argue persuasively for involving families in the early intervention process (e.g., Christenson, Rounds, & Franklin, 1992; Lucyshyn et al., 2002; Shonkoff & Phillips, 2000; Webster-Stratton, 1997).

## Discussion

### Status of Research and Future Directions

Considered as a whole, the empirical evidence related to the presence and impact of challenging behavior, prevention of challenging behavior, and interventions for addressing challenging behavior is fairly extensive, consistent in findings, and clearly directive of programmatic and public policy initiatives. Having said that, a number of knowledge gaps also are evident. Some of the most obvious are the following:

- (1) There is little empirical work related to intervention strategies for infants and toddlers. The complexities of intervention research with this age group are many. Most notably, one can point to the following concerns related to the field's needs to improve practices in early identification: (a) discrimination between typical behavior and legitimately challenging behavior is difficult; (b) in many cases the real-life context is the home and the logical intervention agent is the primary caregiver; and (c) measurement methods for assessing challenging behavior for this age group are lacking.
- (2) Although evidence for the negative behavioral trajectory associated with early-onset challenging behavior is very convincing, there is also a subpopulation of children who have good behavioral outcomes in the absence of obvious intervention. We know little about this subgroup and what protective factors help divert them from the unfortunate path described earlier in this article.
- (3) Much of what we know is based on

relatively small-scale studies that include relatively few settings, intervention agents, and child/family participants. Real concerns remain about the generality of their findings to diverse populations within natural settings, and the intricacies of interventions implemented at scale.

- (4) Like much of the research in the field of early intervention, relatively little is known about the influence of culture, language, and ethnicity on challenging behavior and its sequelae, prevention, and intervention. Here again, the concerns over generality are very real.
- (5) With few exceptions, relatively little research has been conducted that examines the long-term outcomes of intervention on challenging behaviors.
- (6) Although a large fraction of research has used directly observed challenging behavior in real-world, ecologically valid contexts, a reasonable fraction of empirically based studies has relied on ratings of child behavior by caregivers and other indirect indices.
- (7) Most intervention research has focused on variables affecting individual children, with little research on program procedures, systems components, and public policies that support the use of evidence-based practices with this population. Very few data address larger units of analysis, yet there is no doubt that policies and procedures at a program level can have a tremendous influence on the development and occurrence of challenging behavior (Fox et al., 2003; Knitzer, 2002; Smith & Fox, 2003; Stormont, Lewis, & Smith, 2005).

Proceeding with a vigorous research agenda on the challenging behavior of young children will require both considerable resources and a well-planned approach. The issue of resources cannot be overemphasized. If we wish to take interventions to scale, if we wish to install prevention programs across communities, if we wish to gather longitudinal outcome data, the costs will be considerable. In fact, based on our collective intervention experience, we believe that studies at scale are roughly 5 to 10 times more costly than typical, small-scale evaluations of intervention impact.

It is tempting to suggest that the seven identified research gaps constitute the logical research agenda going forward. Indeed, filling these gaps would represent profound

contributions. We believe, however, that it is equally important to specify the characteristics or features of a future agenda as well. We describe five features (cf. Dunlap, 2006) that we believe will result in research findings which will help solve the serious problems affecting persons who engage in challenging behavior, their families, peers, and service providers.

- (1) *A quest for meaningful impact, so that solutions identified in the research will benefit large portions of society or single individuals in life-altering ways.* Meaningful impact, we believe, is best ensured by the use of measurement methods characterized by (a) direct observation of challenging behavior in real-world settings; (b) assessment of the social validity of intervention goals, practices, and outcomes; and (c) assessment of positive life style changes (e.g., more friendships, more access to typical settings) associated with reductions in challenging behaviors.
- (2) *A commitment to placing solutions above the strictures of science, and obliging research designs to conform to the situation.* Our notion here is that methodological arrogance in all forms is counterproductive. The nature, impact, and developmental trajectory of challenging behavior are such that many different methodological approaches are needed. Relatedly, the nature, impact, and developmental trajectory of challenging behavior place ethical and practical restraints on the choice of designs. A healthy and complete portfolio of future research will surely require qualitative methods, correlational studies, replicated single case designs, and randomized control trials. Thoughtfully matching the questions, the contexts, and the designs to be used will be the key to ensuring the most meaningful results.
- (3) *An emphasis on ecological validity, with a recognition that solutions in analog contexts are not solutions to real human problems.* Most often one thinks of analog contexts as having setting parameters only. That is, we might consider an experimenter-created therapeutic play group as an analog to a free-play period in a preschool. In the analog, the grouping of children is controlled (size, gender, age, etc.), the "agenda" is controlled, and the frequency of sessions is controlled. We would also argue that the analog

context may involve the agent or agents of intervention. That is, if the intervention can be delivered only by a small number of people with highly specialized skills, the use of that intervention is limited. This is not to say that analog studies have no role. Studying new, novel, or perhaps controversial intervention approaches may call for an analog experiment. Such interventions, however, must ultimately be made deliverable in real-world contexts.

- (4) *A commitment to collaborate with colleagues, students, the community, and particularly research participants, reflecting an understanding that ideas and solutions are social, communal phenomena.* Sometimes referred to as participatory or action research, this feature would be best represented by studies in which child, family, and service provider consumers helped articulate the challenging behaviors of concern, the interventions to be used, and the means for determining success.
- (5) *An assertion that ideas and data are more important than ideologies—implying an openness to all potentially useful perspectives, conceptualizations, and the knowledge from divergent disciplines.* If past is prologue, then certainly a future research agenda should encourage and differentially support multidisciplinary efforts. The knowledge base to date represents the important yet isolated contributions of researchers in, for example, the fields of clinical psychology, epidemiology, developmental psychology, special education, early childhood, applied behavior analysis, positive behavior support, psychiatry, infant mental health, and social work. Integration of these disciplines, where relevant and promising, should be a clear priority.

## Summary

In this article we have attempted to generate broadly articulated and agreed on findings in the area of young children's challenging behavior via a consensus building and literature review process. As predicted earlier in *Table 1*, summary statements specific to evidence and impact, prevention, and intervention were generated. The statements are not intended to summarize all that is known, but rather to capture the findings from each area for which there is compelling and,

in most cases, noncontroverted data.

Additionally, we have attempted to point out the more glaring holes in the available data on children's challenging behavior. In answering these questions and others, we have also provided some guidance for the conduct of future research.

Viewed from the present historical perspective, it is clear that much is known regarding principles about young children with challenging behavior. If left untreated, challenging behavior almost always gets worse. If preventive and early intervention is available, challenging behavior need not occur or need not escalate. Intervention agents have a wide variety of evidence-based practices from which to choose. This foundation, we believe, sets the occasion to tackle more complex empirical questions as the field attempts to provide and sustain evidence-based practices for all children who may benefit from targeted preventive and early intervention efforts.

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#### AUTHORS' NOTES

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#### MANUSCRIPT

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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 (Coie & 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
AI'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

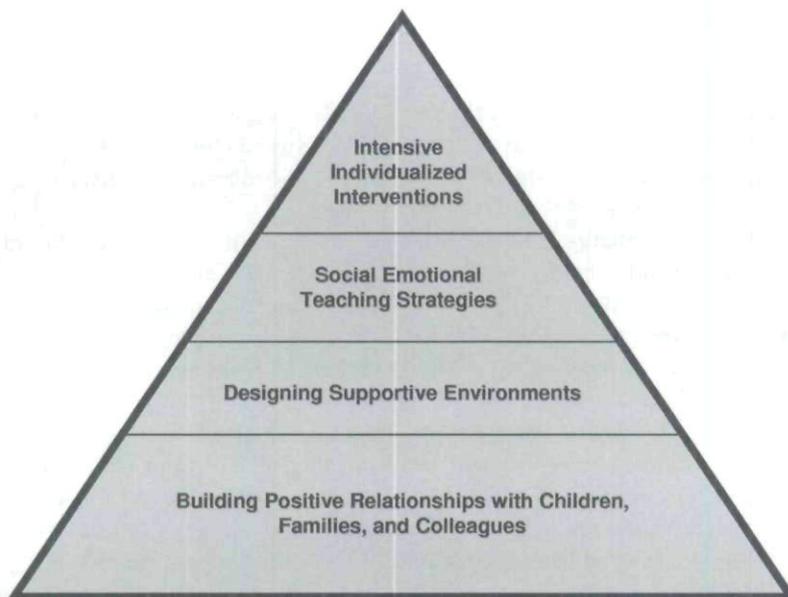
range of strategies. While promotion and prevention strategies will be adequate for addressing most problem behaviors, a small number of children will engage in persistent problem behavior in spite of these efforts. A more systematic approach will be needed to

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 (Bredekamp & 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 & Odom, 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 & Koepl, 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, Mancina, 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 preschool 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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# The Center on the Social and Emotional Foundations for Early Learning

## *Addressing Challenging Behavior in Infants and Toddlers*

AMY HUNTER

ZERO TO THREE

MARY LOUISE HEMMETER

Vanderbilt University

*Jamal, age 17 months, began attending the Bright Baby Child Care Center 8 weeks ago. In these initial weeks at the center, Jamal has spent much of his time crying. He frequently hits and bites other children and the caregivers. He has had difficulty falling asleep; often he does not nap at all. Jamal's primary caregiver, Ms. Gatson, doesn't know what to do. Nothing she has tried seems to help. Ms. Gatson is particularly worried about him biting other children. She is also worried about her ability to provide sufficient attention to the other children while trying to help Jamal. Ms. Gatson has considered talking to her supervisor about telling Jamal's mother that the Bright Baby Child Center might not be a good fit for Jamal. Ms. Gatson knows she needs to talk to her supervisor, but she is worried her supervisor will think she is a bad teacher.*

*Prior to coming to the center Jamal was cared for by his grandmother while his mother worked full time. Jamal had little prior contact with groups of young children, but he had never bitten or hit other children. Since attending the center Jamal has been having difficulty eating and sleeping at home. His mother, Malena, asked her pediatrician for guidance; the pediatrician responded that Jamal might be "stressed" and suggested child care may be too much for him. Malena is not sure what to do. She needs care for Jamal, yet she is concerned about the toll it seems to be taking on him.*

### The Impact of Challenging Behavior

**I**N THE ABSENCE of focused support, Jamal may be asked to leave his child care center. If he stays in the child care program and his behaviors persist, his relationships and his development may suffer. Jamal's peers may begin to ostracize him, or perceive him to be a poor playmate whom they would rather avoid, or both. Jamal's teacher may become overwhelmed by his behavior and begin to treat him with impatience, frustration, or harshness. In addition, Jamal may likely experience his mother's stress in the way she interacts with him, cares for him, and speaks about him.

The potential impact of Jamal's challenging behavior on his social-emotional development is significant. He may come to believe relationships are stressful and difficult. Jamal may develop negative associations with other caregivers, child care, or school. He may

develop an idea that the world is an unsafe and unsatisfying place where he does not fit in. Jamal may develop negative thoughts about his self-image and identity such as, "I cannot be soothed," "I have needs that cannot be met," "I am a person others cannot understand," and, perhaps, "I am not worth being treated well or of having satisfying relationships with others." Jamal's behavior problems contribute significantly to his mother's worry, her level of stress, and the general quality of family life.

It is unclear from this brief scenario whether Jamal's behaviors represent developmental or transitional issues, issues in the care environment or relationships, or issues internal to Jamal. Jamal's experiences likely reflect a combination of all of these interactional experiences. Although there is increasing consensus that social-emotional and behavioral problems exist in infancy and toddlerhood (Zeanah, 2000), relatively little

is known about the course and persistence of such early emerging social-emotional and behavioral problems (Briggs-Gowan, Carter, Bosson-Heenan, Guyer, & Horwitz, 2006). What is clear in this scenario is that Jamal, his teacher, Ms. Gatson, and his mother, Malena, need support and strategies to navigate this complex situation.

### Prevalence of Social-Emotional and Behavioral Problems

**U**NFORTUNATELY, SITUATIONS LIKE Jamal's are all too common. The Michigan Child Care Expulsion Prevention Initiative, one of the country's few programs dedicated explicitly to the prevention of expulsion of very young children,

#### Abstract

**The Center on the Social and Emotional Foundations for Early Learning (CSEFEL) is a federally funded national resource center designed to support early care and education (ECE) providers in addressing the social-emotional needs of children birth through age 5 years. Recent research has found that an extraordinarily high number of young children are being asked to leave early childhood settings because of their behavior. The authors describe the Pyramid Model, a framework of recommended practices to help ECE programs support the social-emotional competence of young children and address challenging behavior.**

reported that 67% of referrals they received in 2006–2007 were for children birth through age 3 years (Mackrain, 2008). Additional data suggest that an estimated 10%–15% of 1- and 2-year-old children experience significant social-emotional problems (Briggs-Gowan, Carter, Skuban, & Horwitz, 2001; Roberts, Artkisson, & Rosenblatt, 1998). Other data similarly suggest that 12%–16% of the total population of children from birth to 3 years old exhibit challenging behavior (Boyle, Decouflé, & Yeargin-Allsoop, 1994; Campbell, 1995). Yet, fewer than 8% of 1- and 2-year-olds with social-emotional problems receive any developmental or mental health services (Briggs-Gowan, Carter, Irwin, Wachtel, & Cicchetti, 2004). From an early intervention perspective, Danaher, Goode, and Lazara (2007) found that in 2006 only 2.41% of the national population of children from birth to 3 years received services and supports through the early intervention system.

Perhaps the fact that so few young children with social, emotional, and behavioral problems are identified and receive services offers partial insight into why 4-year-olds in Pre-K programs are expelled at a rate three times that of all children in grades K-12 (Gilliam, 2005). In most cases, challenging behavior develops over a period of time in the context of children's relationships and environments. On the basis of prevalence data, it is possible that many of the children expelled at age 4 could have been identified with proper screening and assessment tools in earlier years of their development.

### Need for Additional Information for Parents and Teachers

**D**ESPITE AN INCREASING trend in the number of young children with challenging behavior, many teachers of young children feel ill-equipped to meet the needs of children with challenging behavior (Fox, Dunlap, Hemmeter, Joseph, & Strain, 2003). Early childhood teachers report that challenging behavior is their number-one training need and that challenging behavior negatively affects their job satisfaction (Hemmeter, Corso, & Cheatham, 2006).

Similarly, parents are often unsure how to respond to their children's challenging behavior. Frequently, parents worry about how to meet their child's needs while also meeting work responsibilities and other family and personal obligations. Parents may be put in a position where their child's needs are at odds with their work responsibilities. Parents rely on family, friends, pediatricians, and their child's teachers for guidance and advice; however, information and services for very young children with challenging behavior are not widely available. In fact, in a study exploring the experiences of parents of young children

(from 25 to 43 months of age) with challenging behavior, many of the parents considered information provided by pediatricians to be inadequate; parents reported that pediatricians often suggested that the children's challenging behavior reflected a normal range of functioning for the child's age, and/or that the child would grow out of the behavior (Worcester, Nesman, Raffaele Mendez, & Keller, in press).

### The Center on Social Emotional Foundations for Early Learning

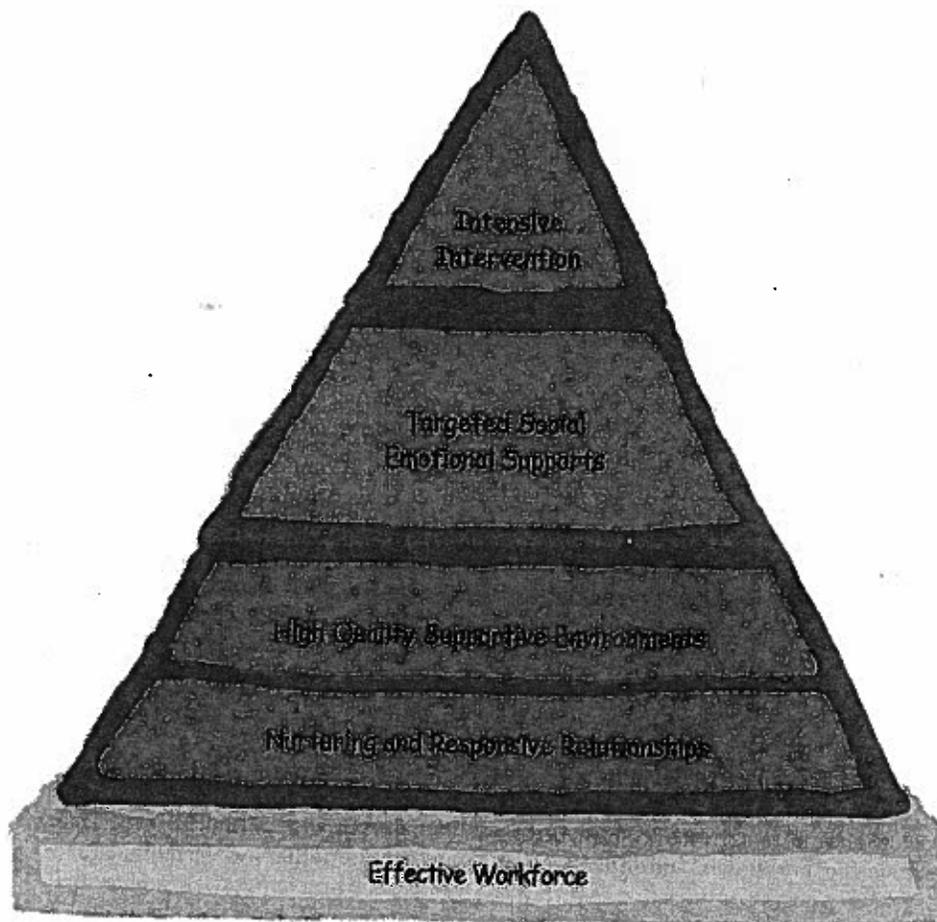
**T**HE OFFICE OF Head Start and the Child Care Bureau recognized the need for a national resource center to support early educators in addressing the needs of children expressing challenging behavior in the classroom. The Center on the Social and Emotional Foundations for Early Learning (CSEFEL) was initially funded in 2001 to develop materials and resources to assist teachers in supporting the social-emotional development of children ages 2 to 5 years and addressing challenging behavior. In 2006, CSEFEL was funded again with an explicit focus on expanding the model and materials to address the needs of early educators working with children from birth to 2 years old.

The CSEFEL approach to understanding and addressing challenging behavior in young children is designed to build the capacity of teachers and parents to support the social-emotional development of all young children. The Pyramid Model for Supporting Social-Emotional Competence in Infants and Young Children (see Figure 1) provides a conceptual framework for organizing effective practices for promotion, prevention, and intervention. The four levels of the Pyramid Model are, from bottom to top: Nurturing and Responsive Relationships, High Quality Supportive Environments, Targeted Social Emotional Supports, and Intensive Intervention. The base of the Pyramid, Effective Workforce, reflects the importance of providing support and training to providers in order to support them in implementing the Pyramid practices.

### Effective Workforce

The foundation of any effective organization is an effective workforce. A well-supported, well-qualified workforce is even more critical in programs serving infants and toddlers where the quality of children's care and education is largely based on their interactions and relationships with their caregivers

**Figure 1. The Pyramid Model for Supporting Social-Emotional Competence in Infants and Young Children**



(Kagan, Tarrant, Carson, & Kauerz, (2006). Working to promote children's social-emotional development and to prevent and address challenging behaviors requires that programs have a number of systems and policies in place to support the adoption and maintenance of evidence-based practices (Hemmeter, Fox, Jack, & Broyles, 2007). Programs should develop formal and informal strategies that are individualized to promote each staff's ongoing professional development. Staff members should know the specific procedures to request support and share concerns, and they should have access to timely and qualified support in response. Staff members should have regular opportunities to reflect on their practices and their own sense of well-being, and to offer feedback and suggestions.

There are a number of leadership strategies that support developing an effective workforce to support young children's social-emotional development. A leadership and administrative team should

- Demonstrate a commitment to promoting all children's social and emotional development;
- Regularly recognize and acknowledge staff efforts and contributions;
- Involve staff in shared decision making;
- Articulate the program's expectations and goals;
- Work to ensure that staff at all levels of the organization are accountable;
- Use data to make continual program improvements;
- Recognize that changing practice is challenging; and
- Maintain enthusiasm, passion, and direction for enhancing staff competency and quality children's services.

### *Nurturing and Responsive Relationships*

The foundation for promoting social-emotional development in young children is characterized by responsive relationships and high quality environments. Very young children learn what relationships look and feel like by participating in and observing relationships with others. Interactions between children and staff, parents and children, staff and parents, and among staff are all critical to consider when thinking about promoting children's social-emotional development. Young children develop their self-image and their beliefs about the world, and the people in it, on the basis of their early relationships with their caregivers. Children who have positive relationships, self-confidence, and social skills are less likely to engage in challenging behavior. Similarly, very young children



PHOTO: MARILYN NOST

**Quality early care and education depends on quality interactions between children and caregivers.**

are more likely to respond to caregivers with whom they have developed a positive trusting relationship.

Caregivers who have nurturing and responsive relationships with children in their care often engage in practices such as

- Maintaining frequent and close eye contact with children;
- Acknowledging children's efforts;
- Providing praise and encouragement to children and their parents;
- Smiling and warmly interacting with children, using positive language at all times;
- Responding to children's vocalizations and communication attempts;
- Frequently using language to talk about emotions, experiences, and the environment;
- Using significant amounts of physical closeness (e.g., holding children, sitting next to children at their level, rocking children);
- Holding infants while feeding them a bottle; and
- Spending time on the floor with children.

Organizational practices such as continuity of care, primary caregiving, using everyday experiences and routines to guide the curriculum, and low caregiver-to-child ratios set the stage for caregivers to form close and secure relationships with chil-

dren and their families. Individualizing care by uniquely responding to each child's temperament (e.g., allowing a child who is slow to warm up more time to watch an activity before he joins in), interests, strengths, needs (e.g., carrying an infant who is used to being held frequently in a baby carrier or sling), and individual sleeping, feeding, and playing rhythms helps caregivers get to know each child and be responsive to his individual needs.

When providers make an effort to communicate and develop relationships with each child's family, they demonstrate that they understand and respect the key role the family plays in shaping how their children learn about themselves and their emotions and develop their own way of interacting and relating to others (National Research Council & Institute of Medicine, 2000). Establishing a trusting relationship with each family early ensures that if a child does exhibit challenging behavior it can be addressed openly in the context of an existing trusting relationship. In addition, systems that serve infants and toddlers and their families have the opportunity to positively contribute to a family's social support network and to reduce the level of stress families may experience (Gowen & Nebbrig, 2002; Seibel, Britt, Gillespie, & Parlakian, 2006).

There are a number of concrete practices that can assist caregivers in developing and maintaining responsive nurturing and

supportive relationships with families (see box, Practices to Support and Enhance Relationships With Children and Families).

### High-Quality Environments

High-quality environments facilitate children's ability to safely explore and learn. High-quality environments facilitate positive interactions among children and between adults and children. In addition, physical environments that are well-designed (e.g., changing tables placed where caregivers can see other children, sinks next to the changing tables, child-sized toilets in the restroom, ample space for children to move and play, sufficient storage) and well-supplied (e.g., adult-sized furniture and child-sized furniture, plenty of materials) facilitate caregivers' ability to successfully care for children and help caregivers feel comfortable and valued (see box, Characteristics of High-Quality Environments).

### Targeted Social-Emotional Supports

Essential social-emotional skills include cooperating, sharing, turn taking, engaging with and getting along with others, regulating/managing emotions, expressing emotions, listening, recognizing emotions, taking the perspective of another, empathizing with others, and using words and gestures to resolve conflicts. The development of these skills starts early (infants as young as 7 months can recognize a discrepancy between a caregiver's tone and facial expression (Grossman, Striano, & Friederic, 2006)). Responsive flexible routines and systematic approaches to teaching social-emotional skills can have a preventive and remedial effect on young children's social-emotional development.

There are many ways to support young children in learning and developing social-emotional skills. Caregivers who are intentional and purposeful provide multiple and diverse opportunities throughout the day for young children to observe, experience, and practice their social-emotional skills.

## CHARACTERISTICS OF HIGH-QUALITY ENVIRONMENTS

- Safe and free from hazards
- Clean and free of clutter
- Inviting, interesting, and aesthetically pleasing
- Natural light with windows
- Comfortable spaces for adults to sit with and/or hold children (e.g., adult-sized couch, rocking chair, mat with large pillows to lean up against)
- Quiet, soft spaces for children to be alone and/or interact with one other child (e.g., a nest with a blanket over it, a loft space or box for two children to crawl in)
- Children's art work at eye level
- A space for developmentally appropriate toys and manipulative items at children's level so they can reach them
- Mirrors at children's level so they can see themselves
- A space for reading to children and places for infants and toddlers to reach books and look at them
- Space and materials for sensory exploration
- Space and materials for development of gross motor skills (e.g., floor space so children can move freely about, ramps and short climbers, balls of all sizes, rocking boats, tunnels to crawl through, a bar fastened to the wall at various levels to accommodate multiple children attempting to stand, slides and climbers that invite peer interaction)
- Space and materials for dramatic play (e.g., hats, scarves, purses placed at children's levels; child-sized kitchen furniture and utensils; multi-ethnic dolls, baby bottles, bed and blankets)
- Spaces and materials appropriate for children's ages (i.e., developmentally appropriate, individually appropriate, and culturally appropriate)

Children with strong social-emotional skills have fewer challenging behaviors

### USING ROUTINES

Caregivers can use routines such as feeding and diapering to provide each child with one-on-one time for interacting, bonding, and engaging in relationships (i.e., demonstrating relationship skills). Caregivers of older toddlers can engage children in developing social skills by sitting with them during eating and encouraging conversations about the food or experiences (versus hovering over them). Toddlers benefit greatly from predictable yet flexible routines that help them to feel safe and

secure in knowing what is coming. As children feel comfortable in their routine and in their surroundings they are able to explore and learn.

### DEVELOPING SELF-REGULATION

Through relationships with their caregivers very young children begin to recognize and regulate their own feelings. As caregivers respond when children are hungry and when they indicate they are satisfied or want to stop eating, children learn to recognize and respond to their own feeling states. When caregivers tune in to a child's cues for how much stimulation he may need and respect when he is uninterested in interaction, a child begins to learn how to regulate his own emotions and interests. When caregivers respond to children's attempts to communicate individual needs consistently over time, children learn that their communication is meaningful and effective in getting their needs met. Picking up a crying baby, offering soothing touches, rocking, singing, or providing calming words sets the stage for him to develop his own ability to self-soothe. Encouraging older toddlers to notice their feeling states (e.g., "you look so angry right now"), engage in deep breathing, experiment with different feeling expressions and different bodily states (e.g., tense, stiff, loose, relaxed) provides children practice in identifying their own feelings and learning how to calm themselves.

## PRACTICES TO SUPPORT AND ENHANCE RELATIONSHIPS WITH CHILDREN AND FAMILIES

- Ask parents about their child's needs, interests, routines, and preferences.
- Talk frequently with the child's parents about their caregiving practices at home (e.g., how do they feed the infant? How do they put her to sleep?).
- Communicate with children and families in their home language.
- Communicate daily with families about the child's activities and experiences.
- Welcome families and encourage them to stay or visit anytime.
- Develop rituals with families and children at "drop-off" and "pick-up."
- Encourage breast-feeding and offer private, comfortable spaces for breast-feeding.
- Conduct home visits.

Infants and toddlers also learn about emotions when their caregivers and parents label children's emotions as well as their own throughout the day. Children learn turn-taking when caregivers encourage children to imitate their actions such as putting a block in a bucket. When caregivers offer opportunities for young children to help (e.g., set the table, clean up toys and spills) and provide specific praise for helping, children learn social skills of cooperating, being responsible, and contributing to their surroundings. Peek-a-boo and other social games offer children engaging and fun opportunities for give and take in social interaction. Regularly offering children choices (e.g., asking which book they want to read) helps children feel powerful and independent. Following a child's lead in play is another strategy to support children's social-emotional development. When adults allow a child to direct the play, the child learns that his ideas are valued and he is more likely to further initiate, explore, and interact. When problems or conflicts occur between children, caregivers can teach children to problem solve by offering alternative solutions and gradually helping them use problem-solving steps on their own.

### **Intensive Intervention**

Even when teachers establish positive relationships with children and families, design and implement supportive environments, and intentionally offer multiple and varied opportunities for children to develop their social-emotional skills, a small percentage of children will continue to need more intensive and individualized intervention. One approach to developing individualized plans is called Positive Behavior Support (PBS). PBS recognizes that children's behavior has meaning. "In the last decade research has demonstrated that positive behavior support (PBS) is a highly effective intervention approach for addressing severe and persistent challenging behavior" (Fox et al., 2003). It has been described and used successfully with young children including toddlers (Dunlap, Ester, Langhans, & Fox, 2006; Dunlap & Fox 1999; Fox & Clarke, 2006; Fox, Dunlap, & Cushing, 2002; Powell, Dunlap, & Fox, 2006).

The focus of PBS is to understand the meaning of the child's behavior and help the child and adult discover together more effective means for communicating needs, wishes, and desires. As a result of using a PBS approach, adults develop new ways of responding to children and children develop more effective strategies for communicating what they want or need. Using PBS reduces challenging behavior, enhances relationships between adults and children, and generally helps caregivers and children experience an

improved quality of life. Steps in implementing a PBS process include:

- Conduct observations and collect data on the child's behavior and the context in which it occurs in order to identify the function of the behavior.
- Respond immediately to any unsafe behavior.
- Meet with the family to collect information about the child's behavior at home and in the community, share information, and demonstrate a commitment to working together to address the child's needs.
- Convene a team meeting (including family members) to collaborate and design a behavior support plan based on an understanding of the child's behavior in everyday activities and routines.
- Provide support to the caregivers to implement the plan at home and at school.
- Continue to conduct observations and collect data in order to evaluate the plan and ensure the plan is being implemented consistently.
- Set a timeframe and method for evaluating the plan and changes in the child's behavior.

If challenging behavior persists,

- Determine whether the plan is being implemented as designed.
- Conduct additional observations to determine whether the team correctly identified the meaning of the child's behavior.
- Determine whether the plan needs to be revised.
- Determine whether additional evaluations, assessments, supports, or professional expertise are needed.

Individualized plans are developed based on a comprehensive assessment process that includes observation, interviews with significant others, and reviewing records.

The assessment should include:

- Information from the family
  - The parent's view of the behavior and parents' current responses to the behavior
  - Family history
  - Significant changes in family composition and/or other relationships
  - A review of the child's developmental and medical history
  - Family circumstances
  - Level of stress, etc.
- Information and data on the behavior
  - Frequency, intensity, and duration; function of the behavior

- What happens before and after the behavior
- The setting and context in which the behavior occurs, etc.
- An assessment of the child's interests, strengths, and development
- Observations of the child in multiple environments
- Results from any screenings or other assessment

The goal of the assessment process is to identify the function or purpose of the child's challenging behavior. Individualized plans should be designed based on an understanding of the individual child's behavior and should include prevention strategies, new skills to teach the child, and strategies for changing or modifying the way adults respond to the challenging behavior. Plans can be designed for the child care center, the home, or both. The most effective plans are those that are consistently implemented by all the caregivers in a child's life. A sample of a behavior plan for a toddler is provided (see box, Sample Individualized Behavior Support Plan).

Providing care to children with challenging behaviors is hard work and can be stressful for caregivers. Any individualized planning efforts should consider the stress level and emotions of the caregivers. Caregivers implementing individual behavior plans need and greatly benefit from opportunities to: reflect on their experience, share concerns and beliefs, gain support, and receive positive recognition for their efforts and accomplishments.

### **Putting the Pyramid Model Into Practice**

The following is an example of how the CSEFEL Pyramid Model can be used in an infant-toddler classroom to support social-emotional competence.

*Ms. Little, the administrator at Palm Tree Child Development Center, helps Ms. Powell, an infant-toddler teacher, warm a bottle and set out food for the children. It is the beginning of the year and Ms. Little wants to ensure that the infant and toddler teachers have the help they need to communicate effectively with each child and parent upon arrival (Effective Workforce).*

*When Theo, age 6 months, arrives at the center, Ms. Powell gently takes him from his mother. She nuzzles him close and smiles at him, telling him how much she missed him over the weekend. As she holds him close to her she asks his mother, Tori, how her weekend was. She asks Tori about Theo's sleeping and eating patterns and the progression of his teething. Ms. Powell then talks a bit to Theo about the classroom and his favorite areas to play in. As Tori leaves, she smiles to herself thinking how lucky she is to have Theo cared for in such an*

## SAMPLE INDIVIDUALIZED BEHAVIOR SUPPORT PLAN

Dean is a social, engaging, active 22-month-old boy. He has just started a group child care program for the first time. When his parents first brought him to the center, they talked with the teacher about their concerns about his behavior at home. His language is delayed. When adults can't understand what he is saying he gets frustrated and starts crying and screaming. He often does not follow directions, especially when he has to change activities. When changing activities (e.g., from playing in the classroom to going outside), he often has temper tantrums and falls to the ground crying. The teacher, center director, and parents are all committed to developing a plan to help him be successful. On the basis of several observations, they determine that Dean has challenging behaviors most often when (a) he is asked to transition to another activity, (b) he is engaged in an activity that is difficult, and/or (c) he is asked to follow directions to do something he does not appear interested in. The team hypothesizes that when tasks are challenging and/or when he doesn't want to do something he attempts to avoid the activity. The team works together to develop a plan based on their observations and discussions. The strategies below address Dean's difficulty with transitions. Similar plans are developed for following directions and engaging in difficult tasks. These plans can be used at home or at child care.

Goal: To improve Dean's ability to transition from one activity to another.

- **Prevention Strategies**
  - Provide him with a picture schedule to help him understand the transition.
  - Use a timer to help him prepare for the transition.
  - Use simple language to warn him that a transition is about to happen.
  - Include times on the schedule when he can do the things he really likes to do.
  - Write a short story about what he should do during transitions and read it to him each day.
  - Include photos of Dean and the classroom to provide illustrations of what he should do during transitions.
- **New Behaviors**
  - Teach him to use the visual schedule (i.e., turn over the photo of one activity in preparation for the next activity).
  - Teach him to transition when the timer sounds; practice transitioning at times when he is not upset.
- **Adult Responses/Support**
  - Provide positive descriptive feedback when he uses his schedule and when he transitions without having a tantrum.
  - Validate his feelings.
  - Refer to the schedule to help him through transition.
  - Stay physically close to provide support and encourage him through small steps of the transition.
  - Have a peer bring him something related to the next activity (e.g., a ball for outdoor time).
  - Use "first, then" statements, (e.g., "first we change your diaper, then we can go outside").

*interesting environment by a teacher who really loves him (Nurturing and Responsive Relationships and High-Quality Supportive Environments).*

*Ms. Powell holds Theo on her lap while she feeds him a bottle. With Theo on her lap she sits at a child-sized table with two toddlers who are practicing feeding themselves. As she feeds Theo, she engages all the children in conversation about what they are eating. One of the children, Lizzy, pushes her food away and makes an angry face. Ms. Powell says, "Lizzy, you look angry. Are you finished with your food? Can you say, 'all done'?" Lizzy imitates Ms. Powell's words. Ms. Powell responds, "Great job trying to use your words, Lizzy. If you are done eating you can go ahead and play with the toys from the shelf!" (Targeted Social Emotional Supports).*

*Ms. Powell has been a bit worried about the behavior of another child, Sarah. Lately she has noticed a change in how readily Sarah has been hitting and biting to try to get what she wants. Ms. Powell, Ms. Little, and Sarah's parents have*

*been keeping in close communication about Sarah's behavior and may soon develop an individualized behavior plan for home and school in order to try to strategically prevent and address the behavior. They all agree that a plan will help them better understand Sarah's behavior and find the most effective ways to prevent and respond to it (Intensive Intervention).*

CSEFEL developed three training modules to support caregivers in addressing the social-emotional needs of infants and toddlers. These modules reflect the three tiers of the Pyramid, with Module 1 focusing on the bottom tier, Module 2 focusing on the second tier, and Module 3 focusing on the top of the pyramid. (see box, Training Modules for Promoting the Social and Emotional Competence of Infants and Toddlers).

### Summary

*I am so frustrated by these behaviors. Some days I feel so incompetent, I just want to quit!*

*Sometimes I cry, not because he is hurting me but because I don't know what to do for him.*

Although these quotes are from teachers with whom we have worked, they are not unusual. In our work with early childhood providers in a variety of settings, we hear these kinds of comments on a regular basis. Teachers are frustrated by infants and toddlers with challenging behavior and feel that they lack both the direction and support to help them respond appropriately. Their frustrations affect their job satisfaction and no doubt affect their interactions with children and families. In this article we have described a model that addresses teachers' need for effective practices and supports teachers in implementing those practices. The Pyramid Model offers a set of practices for promoting social-emotional development and addressing challenging behaviors in all young children. Implicit in the model is the recognition that program policies and procedures must be in place to provide supports to teachers in implementing these practices. In this model, addressing the social, emotional, and behavioral needs of young children is a program responsibility rather than only the teacher's responsibility. Staff whose programs have fully implemented the Pyramid Model have described changes in the day-to-day operation of the program. In the words of one teacher, "The Pyramid Model was difficult at first, but the more you use it, the better it is—and it is life-changing." ♦

## TRAINING MODULES FOR PROMOTING THE SOCIAL AND EMOTIONAL COMPETENCE OF INFANTS AND TODDLERS

- Module 1: Social-Emotional Development Within the Context of Relationships
- Module 2: Responsive Routines, Environments, and Strategies to Support Social-Emotional Development in Infants and Toddlers
- Module 3: Individualized Intervention with Infants and Toddlers: Determining the Meaning of Behavior and Developing Appropriate Responses

Each of the three modules includes a presenter's script, PowerPoint slides, accompanying handouts, and video clips. A facilitator's guide is available. The training modules as well as additional resources are downloadable ([www.vanderbilt.edu/csefel](http://www.vanderbilt.edu/csefel)) and may be copied and distributed freely.

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PHOTO: DEBBIE KAPPAFOOT

Caregivers can use routines such as diapering for one-on-one interaction and bonding.

## Learn More

*Technical Assistance Center on Social Emotional Interventions (TACSEI)*

[www.challengingbehavior.org](http://www.challengingbehavior.org)

TACSEI is funded by the Office of Special Education Programs and focuses on addressing the social-emotional needs of infants, toddlers, and preschoolers with disabilities. The Web site has multiple resources including recommended practices, case studies, PowerPoint presentations, and tools for teachers.

*The Emotional Development of Young Children: Building an Emotion-Centered Curriculum* (and ed.) M. Hyson (2004)

New York: Teachers College Press

This book includes an overview of social-emotional development and guidance in designing classrooms to promote children's emotional development.

*An Activity-Based Approach to Developing Young Children's Social Emotional Competence* J. Squires, & D. Bricker (2007)

Baltimore: Brookes

This practical guidebook is a ready-to-use, linked system for identifying concerns and improving young children's social-emotional health. This book walks readers through a five-step

intervention process called Activity-Based Intervention: Social-Emotional.

*Endless Opportunities for Infant and Toddler Curriculum: A Relationship Based Approach* S. Peterson & D. Wittmer (2009)

Upper Saddle River, NJ: Pearson Education

This is a practical "how-to" book designed to help infant-toddler care teachers plan a responsive and relationship-based curriculum. This book, which helps infant-toddler teachers make intentional decisions about the care they provide, was a primary source for the development of the infant-toddler CSEFEL modules.

*Strategies for Understanding and Managing Challenging Behavior in Young Children: What Is Developmentally Appropriate—and What Is a Concern?*

[www.ehsnrc.org/PDFfiles/TA10.pdf](http://www.ehsnrc.org/PDFfiles/TA10.pdf)  
EHS/NRC Technical Assistance Paper 10, 2006

This useful Technical Assistance paper uses a realistic scenario to offer insight into infant and toddler behavior, illustrate how temperament relates to challenging behavior, and describe how Early Head Start programs can support infants and toddlers who exhibit challenging behavior. Prepared for the Head Start Bureau, under contract # HHSP23320042900YC, by the Early Head Start National Resource Center @ ZERO TO THREE.

*Digging Deeper: Looking Beyond Behavior to Discover Meaning, A Unit of Three Lessons*, [http://eclkc.ohs.acf.hhs.gov/hslc/ProfessionalDevelopment/On-line%20Lessons/Digging%20Deeper%20-%20Looking%20Beyond%20Behavior%20to%20Discover%20Meaning/Digging\\_Deeper\\_intro.html](http://eclkc.ohs.acf.hhs.gov/hslc/ProfessionalDevelopment/On-line%20Lessons/Digging%20Deeper%20-%20Looking%20Beyond%20Behavior%20to%20Discover%20Meaning/Digging_Deeper_intro.html)

These three on-line lessons offer user-friendly self-paced lessons on understanding the meaning of behavior as well as a process for determining how to respond to challenging behavior.

*Michigan Association of Infant Mental Health (MI-AIMH)*

[www.mi-aimh.org/](http://www.mi-aimh.org/)

The mission of MI-AIMH is to promote and support nurturing relationships for all infants. The Web site provides up-to-date information on infant mental health and lists training, resources, and products related to supporting infant mental health.

*Program for Infant/Toddler Caregivers*  
[www.pitc.org/](http://www.pitc.org/)

The Program for Infant/Toddler Caregivers Web site offers information on training, resources, and practices to meet their mission of ensuring America's infants get a safe, healthy, emotionally secure, and intellectually rich start in life.

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## **Building Positive Relationship With Young Children**

Gail E. Joseph and Phillip S. Strain  
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## BUILDING POSITIVE RELATIONSHIPS WITH

# Young Children

**H**elen is a child care provider and has a longstanding morning tradition of taking her class of toddlers to a neighborhood park to play. They spend almost an hour each morning at the park. This day, however, Helen notices the sky turn gray and lightning ensuing. She needs to return to the class immediately. The children have been at the park for about ten minutes and Lucy is playing with her best friend, Tito. Helen says to Lucy, "Honey, I'm sorry, but it is starting to rain and we have to go back right now." Lucy begins to whimper and says, "But I was playing with Tito." Helen reaches down and hugs Lucy, saying, "I know. We can finish playing with Tito indoors." Lucy says, "okay," and she and her class hurry back to school.



Eric has been a Head Start teacher for ten years. In that time he has built a reputation as the teacher for the tough kids. This year, Bill is assigned to Eric's class because of his long history of hyperactivity, negativity, and aggression toward adults and peers. Two months into the year the Center's administrator sheepishly asks Eric how things are going with Bill. Eric replies, "Great! Boy, were folks wrong about Bill." Somewhat flabbergasted, the administrator decides to see for himself. What he observes in less than ten minutes is as follows. Eric says to everyone, "Look at Bill, he is sitting so quietly in circle; too cool, Bill!" When Bill answers a question about the story, Eric says, "Bill that's right, you are really concentrating today." When transition is about to occur, Eric says, "Bill can you show everyone good walking feet to snack?" At snack, a peer asks Bill for juice and he passes the container. Eric, being vigilant, says, "Bill, thanks for sharing so nicely."

After completing a functional behavior assessment, Erin, an ECSE teacher, determines that Jessie's long-standing tantrum behaviors in the class are designed to acquire adult attention. Erin institutes a plan to ignore Jessie's tantrums and to provide Jessie time and attention when she is not tantruming. After four days of increased tantrums, Jessie's behavior has improved dramatically.

In each of these scenarios, the fundamental importance of building positive relationships with children is demonstrated. Adults were successful in achieving improved behavior change in contexts that many individuals might predict would lead to continuing, even escalating challenging behavior. However, in each case, the children were obviously attuned to the adults, focused on their communication and prone to value and seek out adult approval. In each case, the adults had invested time and effort prior to the events in question communicating their noncontingent affection and unquestioned valuing of these children. This prior history of positive relationship building may well serve as a prerequisite to effective intervention practices for challenging behavior, and thus should be goal one for adults and caregivers wishing to prevent challenging behavior and enhance a child's sense of well-being and social competence. How does one go about the task of relationship building? This article provides

information for early childhood educators so that they not only know the answer to this question, but also can begin putting it into practice. First, however, a brief presentation of the empirical evidence for the importance of building positive relationships with children is provided.

### Why Build Positive Relationships?

Children who enter kindergarten without adequate social and emotional competence face a cascade of problems throughout their young lives and into adulthood (Huffman, Mehlinger, & Kerivan, 2000). Social and emotional competence is rooted in secure relationships with primary adults during infancy, toddler, and preschool years (National Research Council, National Academies, 2001). All children grow and thrive in the context of close and dependable relationships that provide love and nurturance, security, and responsive interactions (Bronfenbrenner, 1979; Johnson, 1999). Building positive relationships with young children thus is an essential task and a foundational component of good teaching. A positive adult-child relationship built on trust, understanding, and caring will foster children's cooperation and motivation and increase their positive outcomes at school (Webster-Stratton, 1999).

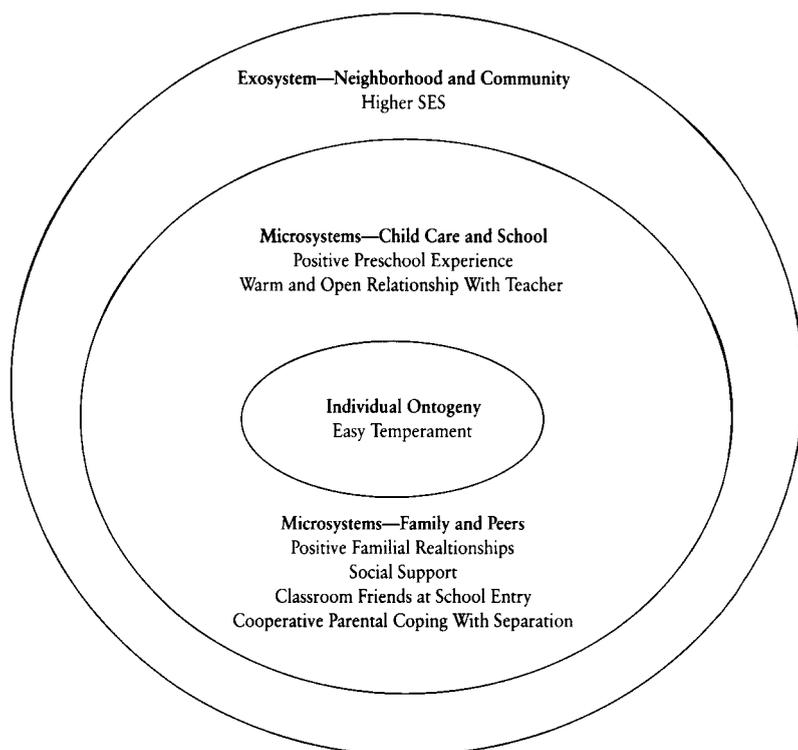
In their research review, Huffman and colleagues (2000) noted that several major factors appear to preserve or build an

*Building positive relationships with young children ... is an essential task and a foundational component of good teaching.*

individual's resiliency. An ecological framework was used to organize these protective factors into the following levels: individual ontogeny, microsystems of family and school, and exosystem of neighborhood/community (Huffman et al., 2000). Figure 1 displays this framework and presents several of the empirically derived protective factors. Note, in the microsystems level of schools, that having a warm and open relationship with his or her teacher or child care provider is identified as an important protective factor for young children. This relationship protective factor operates to produce direct, ameliorative effects for children in at-risk situations (Luthar, 1993).

Adults need to invest time and attention up front with children in developing a positive relationship before progressing to other interventions designed to enhance social skills. There are two reasons that this sequence is so important. First, it should be noted that the protective factors promoted during relationship building can and do function to reduce many challenging behaviors (Rutter, 1979,

Figure 1

**Systems Perspective of Protective Factors**

1990). Carr and colleagues (2003) documented a powerful, positive correlation between poor rapport and the occurrence of problem behavior in dyads of caregivers and clients. Moreover, their research showed that instruction in rapport building for the caregivers resulted in reductions in problem behaviors in children. As such, taking the time for relationship building may save time that would be spent implementing more elaborate and time-consuming assessment and intervention strategies.

Second, as adults build positive relationships with children their

potential influence on the children's behavior grows exponentially. That is, children cue in on the presence of meaningful and caring adults; they attend differentially and selectively to what adults say and do; and they seek out ways to ensure even more positive attention from adults (Lally, Mangione, & Honig, 1988). It is this positive relationship foundation that allowed Helen, with minimal effort, to leave the park early with Lucy; for Eric to experience Bill in a much more positive way than prior teachers; and for Erin to alter Jessie's tantrums in such short order, for example.

**Getting to Know You**

Before the children show up in Eric's classroom at the beginning of the year, he completes a home visit with each child and family. While he is visiting, he interviews both the parents and child to find out a little more about them. One of the first bulletin boards he puts up each year is the "All About Me" board. This board features a new classroom member every two weeks. The board is comprised of family photos, candid shots of the child in the classroom, and the dictated answers from an interview with the child. At the beginning of the year, Eric features the classroom teaching team on this board so that the children get to know more about the adults in the classroom as well.

*... [H]aving a warm and open relationship with his or her teacher or child care provider is identified as an important protective factor for young children.*

In order for adults to build meaningful positive relationships with children, it is essential to gain a thorough understanding of children's preferences, interests, background, and culture (Landy, 2002). For very young children and children with special needs, this information is most often accessed by observing what children do, and by speaking directly to parents and other caregivers. With this information, adults can ensure that their play with children is fun, that the content of their conversations is relevant, and that they communicate respect for children's origins and experiences. Whenever possible, this kind of

information exchange should be as reciprocal as possible. That is, adults should, as developmentally appropriate, share their own interests, likes, backgrounds, and origins with children as well. The left column of Table 1 provides a brief summary of some strategies that teachers might try to get to know the children and their families in their class.

### Making Deposits

For many children, developing positive relations with adults is a difficult task. Prior negative history and interfering behavior often conspire to make the task of relationship

development long and arduous. For example, research has demonstrated that teachers may come to avoid social and instructional interaction opportunities with children who display chronic problem behavior (Shores & Wehby, 1999; Wehby, Symons, & Shores, 1995). Thus, on occasion adults should consider that they will need to devote extensive effort to relationship building. The easiest, most straightforward way to achieve a high level of intervention intensity in the relationship building domain is to think about embedding opportunities throughout the day (Horn, Lieber, Sandall, & Schwartz, 2001; Losardo &

Table 1

### Practical Strategies for Building Positive Relationships With Children

Getting to Know You Strategies	Making Deposit Strategies
<ul style="list-style-type: none"> <li>• Have parents fill out interest surveys about their child</li> <li>• Have a conversation over snack</li> <li>• Make home visits</li> <li>• Listen to a child's ideas and stories and be an appreciative audience</li> <li>• Share information about yourself and find something in common with the child</li> <li>• Ask children to bring in family photos and give them an opportunity to share them with you and their peers</li> <li>• Find out what a child's favorite book is and read it to the whole class</li> <li>• Make "All About Me" books and share them at circle time</li> <li>• Write all of the special things about a child on a T-shirt and let them wear it around</li> <li>• Learn some of a child's home language</li> </ul>	<ul style="list-style-type: none"> <li>• Greet every child at the door by name</li> <li>• Post children's work around the classroom</li> <li>• Have a "Star" of the week who brings in special things from home and gets to share them during circle time</li> <li>• Acknowledge a child's effort and give compliments liberally</li> <li>• Call a child's parents in front of the child to say what a great day he or she is having, or send home positive notes</li> <li>• Play a game, or play outside on the playground, with a child</li> <li>• Ride the bus home or go to an extracurricular activity with a child (with parental permission)</li> <li>• Give hugs, "high fives," and thumbs up for accomplishing tasks</li> <li>• Hold a child's hand</li> <li>• Call a child after a bad day and say, "I'm sorry we had a bad day today. I know tomorrow is going to be better!"</li> <li>• When a child misses a day of school tell the child how much he or she was missed</li> <li>• Develop a "secret handshake" with a child</li> </ul>

Bricker, 1994). While there is no known “magic number,” teachers can provide several dozen positive, affirming statements to children each day. For children who have mostly heard criticism, it takes a lot of messages to the contrary to rebuild their positive self-concept. Because this is sometimes easier said than done, some practical strategies for building positive relationships with children throughout the preschool day are provided in the right column of Table 1.

A particularly helpful analogy for building positive relationships is from the work of Webster-Stratton (1992): that of a piggy bank. Whenever teachers and caregivers engage in strategies to build positive relationships, it is as if they are “making a deposit” in a child’s relationship piggy bank. Conversely, when adults make demands, nag, or criticize children, it is as if they are making a relationship withdrawal. For some children, because there has been no prior effort to make deposits in their relationship piggy banks, nagging, criticism, and demands may be more akin to writing bad checks! It may be helpful to reflect on the interactions you have with an individual child and think to yourself, “Am I making a deposit or a withdrawal?” Or, for example, “Have I made any deposits in Bill’s piggy bank today?” Figure 2 illustrates example deposits and withdrawals from a relationship bank.

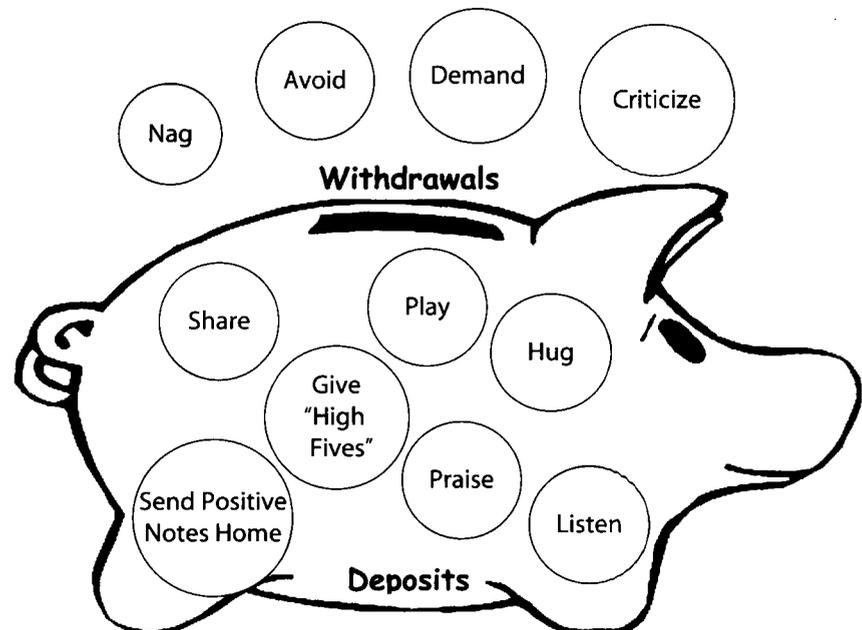
### Making Deposits Through Play

Two “deposits,” play and praise, warrant special attention because of their powerful impact and their occasional misapplication in practice. Play is an extremely powerful and effective way to build positive relationships with all young children, and young children with challenging behavior in particular (Garvey, 1977; Webster-Stratton, 1999). Many early childhood professionals spend time playing with the children in their care on a daily basis. However, the type of play emphasized here may look different from typical play. These play episodes are those in which the child is in control and the adult follows the child’s lead.

*Whenever teachers and caregivers engage in strategies to build positive relationships, it is as if they are “making a deposit” in a child’s relationship piggy bank.*

The adult allows the child to organize all of the play. And, instead of asking questions, the adult imitates the child’s play and uses descriptive commenting to facilitate language, literacy, and engagement. Descriptive commenting has been likened to a “sportscaster’s approach” to interaction (Webster-Stratton, 1992). The adult acts like a sportscaster by providing a play-by-play account of what the child

Figure 2  
**Making Relationship Deposits and Withdrawals**



Source: Adapted with permission from Webster-Stratton, C. (1992). *Incredible years parent training series*. Seattle, WA: Umbrella Press.

is doing (see Table 2 for an example). Descriptive commenting lengthens the child's engagement in play; builds vocabulary (Dale, Crain-Thoreson, Notari-Syverson, & Cole, 1996; Tomasello & Farrar, 1986); and fosters positive adult-child relationships (Webster-Stratton, 1999).

Play between a teacher and child can temporarily even the power structure of the adult-child relationship as the child is in control, thus allowing more intimate and trusting relationships to form. The play context also provides the adult with an opportunity to model positive social skills (e.g., sharing, giving compliments, helping, etc.) for the child, and has been shown to be an effective context in which to intentionally teach social skills (Yoder, Kaiser, Alpert, & Fischer, 1993).

Remember that children are learning through their play. Play can provide a context in which children feel safe to try ideas, take risks, assume different roles, and share their thoughts and feelings.

### Making Deposits With Praise

While there is an enormous body of research to support the use of adult praise to influence the behavior of young children (see Brophy, 1996; Gettinger, 1988), adults often do not consider how praise can also help build positive relationships with children (Webster-Stratton, 1992, 1999). Not only do comments such as, "You did so well sharing your toys," "You are so generous," "You are so good at helping your friends during clean up," and

*Play can provide a context in which children feel safe to try ideas, take risks, assume different roles, and share their thoughts and feelings.*

"You are so friendly" tend to increase the behaviors that they are contingent upon, but the messages can have an additional, beneficial impact on relationship building. Keys to using praise as a means for increasing behaviors and fostering relationships include:

- Praising with enthusiasm
- Being contingent
- Making praise personal and varied
- Being specific about the positive behavior

However, some children seemingly reject praise. Such children become disregulated when they receive praise and may in fact increase their challenging behavior and/or outright reject the positive comment by offering a counter, such as "I am not friendly!" or "I am bad at art!" This behavior from a child can be disturbing to teachers and, unfortunately, can cause them to stop praising the child. Child psychologists (e.g., Rutter, 1990) believe this type of rejection occurs because the child has come to know himself or herself as a "bad kid" and not worthy of such positive accolades. In a sense, such children feel comfortable as the "meanest" or "baddest," and they count on being regarded in this way by all adults and peers they encounter. Thus,

Table 2

### Examples of Descriptive Commenting During Play

A child is playing in the block corner with the teacher. The teacher provides a running narration of what the child is doing during play.

*"Now you have a blue block ... oh, and you are putting the blue block on the red one. And now you have a friendly looking horse .... You are putting the horse behind the blocks. Oh, thank you, is that for me? Wow, you are so generous. Where should I put this red block? ... Okay, that was a nice suggestion; you are so friendly! ... Oh, now you have two horses, and they are playing nicely together ...."*

This strategy can also be used while two children are playing together.

*"Oh, Nelson and Caroline are playing so nicely together. Oh, Nelson just gave Caroline a compliment ... looks like that made Caroline feel happy. Caroline is sharing her blocks with Nelson; that is so friendly. Now, Nelson is asking Caroline for a turn with the horse. You are waiting so patiently for a turn, Nelson. Oh, look at that! Caroline shared the horse with you! Now, Nelson looks very happy. Well, that was nice. Tell Caroline 'thank you.' I bet she appreciates that ...."*

these children feel very uncomfortable when they are described as quite the opposite. An analogy that can be helpful here is that of comfortable clothes. Think of the child who tends to reject praise as one who wears the “bad kid” label like a worn-in, comfortable pair of jeans. When the adult begins to praise and label the child as “friendly” or “generous,” it is as if the child has been dressed in a new, stiff, three-piece suit. It feels uncomfortable. However, if worn day after day (i.e., the child is praised often) this new label becomes worn in, comfortable, and fits like a glove.

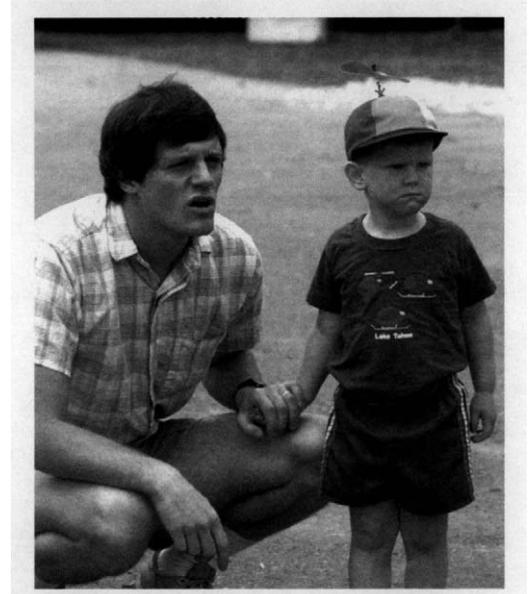
### **Building Relationships With Difficult Children**

Undoubtedly, teachers and child care providers strive to build positive rapport with all of the children in their care. Typically, these adults have the best relationships with children who respond to them, seemingly like them, and go along with their plans. It is, however, more difficult to build positive connections with some children than with others. Most every teacher has experienced a child who pushes his or her “hot buttons.” Maybe the child demands more attention than others; is disruptive, unmotivated, oppositional, or aggressive; or does not provide the same positive feedback to the teacher that the other children do. When teachers’ “buttons get pushed,” they may feel frustrated, stressed and discouraged, or bad about themselves as teachers, possibly causing them

to get angry, raise their voice, or actively avoid the child. Yet, the very children with whom relationships are the most difficult to build are the ones who need positive relationships with adults the most. It is a natural reaction to feel emotional when a hot button is pushed. However, rather than feeling frustrated, angry, or discouraged about it, it is more productive for the adult to think of the emotional response as a warning sign that he or she will have to work extra hard to proactively build a positive relationship with this child.

Building positive relationships is far from simple with some children, requiring a frequently renewed commitment and a consistent effort. In addition to the more general strategies previously presented, the following are some strategies to consider for children who may be more challenging:

- Carefully analyze each compliance task (e.g., “time to go to paints”) and when that compliance task may possibly be shifted to a choice for children (e.g., “Do you want to paint or do puzzles?”).
- Consider if some forms of “challenging” behavior can be ignored (e.g., loud voices). This is not planned ignoring for behavior designed to elicit attention but ignoring in the sense of making wise and limited choices about when to pick battles over behavior.
- Self-monitor one’s own deposit and withdrawal behaviors, and set behavioral goals accordingly. Teachers might self-monitor



using golf wrist counters to record their commenting, or by moving a plastic chip from one pocket to the other. A strategically posted visual reminder also can help teachers remember to make numerous relationship deposits.

## Conclusion

Implementation of the broad strategies of getting to know a child and working on making “deposits” such that they significantly outnumber the “withdrawals” will lay the important foundation of a positive relationship between teachers and each of the children in their care. A majority of this article has focused on what children gain through positive relationships with adults. However, we contend that adults also receive something valuable from the time and attention they expend to build these meaningful relationships. First, as mentioned previously, the children with whom adults build relationships will be easier to teach, more willing to try, and less likely to engage in challenging behavior (Webster-Stratton, 1999). Second, teachers will feel more positive about their skills and their effort—and they might like their jobs even more (Educational Productions, 1999). Third, adults will begin to see the “ripple effect” of relationship building. As children learn in the context of caring relationships with adults, they will become more skilled at building positive relationships with other children

(Webster-Stratton, 1999). Finally, providing a child with the opportunity to have a warm and responsive relationship with his or her teacher means that the adult has the pleasure of getting to know the child as well.

### Note

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# Helping Young Children Control Anger and Handle Disappointment

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As a result of his teachers' careful selection of toys, materials, and play themes, 3 year old Eduardo now is able to benefit from his active participation in a full range of free play activities. Yet, it is still the case that without this level of planning and subsequent, ongoing praise, Eduardo would spend most days playing alone with a particular Tonka truck. On this day the truck has been retired from service due to a broken and now dangerous part. Visibly upset, Eduardo begins to whimper as his teacher explains the situation with the truck and promises to get it replaced soon. She offers Eduardo other play ideas and begins to play with other trucks herself encouraging him to join in. The disappointment is too overwhelming, however, and Eduardo just sits passively, shaking his head, No. His teacher next prompts several of his usual play partners to, "Ask Eduardo to help with their building." When asked, Eduardo screams "No," stomps over their building project and gets a predictable response from his peers. The teacher intervenes at this point to protect Eduardo, his peers and the ongoing program.

Mattie, a 4 year old in a local Head Start classroom is always the first to organize fun play when the water table comes out each Friday. She often talks with great anticipation and excitement (especially on Thursday) about what she is going to do at the water table with her friends.

On this Friday, the water table has been borrowed by the class next door and is not available. When Mattie realizes that the water table is not available she seeks out her teacher for help. She does this with a clear expression of frustration and disappointment. Her teacher explains what happened and asks Mattie to describe how she is feeling. She says she is frustrated. Her teacher acknowledges the legitimacy of her feelings and asks her if she can think of what she and her classmates have practiced when they feel frustrated. With some prompting, Mattie recalls the plan—takes three deep breaths, tell yourself to calm down, and think of some solutions. Mattie and the teacher generate some options at this point, including: a) playing with her next favorite toy; b) asking her best friend what she wants to play; and c) pretending to use the water table. She chooses b, and has a fun freeplay.

As young children gain a better understanding of emotions, they become more capable of emotional regulation. Controlling anger and impulse is perhaps the most difficult task of emotional literacy. In real life situations that are upsetting, disappointing and frustrating it is a tough undertaking to remain calm. Remaining calm in the presence of adverse situations is not about the suppression of emotions, but the dynamic engagement of affective, cognitive and behavioral processes. In order to regulate emotions one must bring into play the rapid and accurate recognition of physiological arousal, the cognitive process required to think, for example, "I need to calm down" and, the

behavioral pretense of taking a deep breath and reacting calmly. Children who learn to cope with their emotions constructively not only have an easier time with disappointments, aggravation, and hurt feelings that are so ubiquitous in the lives of preschoolers but they also have an easier time relating to other children and adults at home, in school or child care, and on the playground (National Research Council and Institutes of Medicine, 2000).

On the other hand, young children who have failed to master the early regulatory tasks of learning to manage interpersonal conflict and control aggressive and disruptive impulses are more likely than their self-regulated peers to display early conduct problems. Children with conduct problems and poor impulse control are more likely to be peer-rejected and do more poorly in school than children who are more capable at emotional regulation and problem solving (Strain, Kerr, Stagg & Lenkner, 1984). Before children can effectively manage interpersonal conflict, they need to be able to recognize and regulate their own emotional responses and stress level. Teachers can play a significant role in helping children learn to control their anger and impulses and to handle disappointment in appropriate ways by identifying and intervening with children who need extra help in developing these competencies. Some teaching strategies include modeling remaining calm; cognitive behavioral interventions; preparing children for disappointing situations before they occur; recognizing and reinforcing when children remain

calm; and involving parents and other care providers.

### Model remaining calm

Teachers can model how to manage anger and handle disappointment for young children. For example, a teacher can share with her class how she felt angry when someone hit her car in the parking lot – but then she decided that feeling mad wasn't helping her think of good solutions – so she took three deep breaths and thought about something relaxing and then when she felt calm she thought of some solutions for fixing her car. In addition to recalling incidents when one felt angry but remained in control – teachers can also model remaining calm as naturally occurring disappointing, scary, frustrating and difficult situations happen throughout the day (e.g., a fire drill; being yelled at; having something break, etc.).

### Teach children how to control anger and impulse

While it may be true that children often hear adults telling them to “calm down,” it is very unlikely that this simple direction will result in any changes in children's affect or behavior. In some instances this kind of command may even escalate a child's angry response. Cognitive behavioral intervention (CBI) strategies can provide children with the requisite skills to control anger and handle disappointment. CBIs offer strategies for teaching appropriate replacement skills to angry outbursts and aggression. CBIs engage a relationship between internal cognitive events and behavioral change through teaching strategies that guide performance and reduce inappropriate behaviors. Using CBI, teachers can provide young children with strategies to

modify their thoughts and promote self-regulation. With preschooler, many accidents occur in classrooms (e.g., children bumping into one another; children knocking over others' constructions) and some children interpret these accidents as purposeful, hostile acts. An essential ingredient of CBI is to help children reframe and modify their processes in order to substitute more neutral interpretations of others' behaviors. The “turtle technique” is a CBI strategy that has been used successfully with preschool and kindergarten age children (Greenberg, Kusche & Quamma, 1995; Webster-Stratton & Hammond, 1997).

The turtle technique was originally developed to teach adults anger management skills then was successfully adapted for school age children (Robin, Schneider & Dolnick, 1976; Schneider, 1974). Since then, the turtle technique has been adapted and integrated into social skills programs for preschoolers (PATHS, Dinosaur School). The basic steps of the turtle technique are:

Recognizing that you feel angry  
Thinking “stop”

Going into your “shell” and taking three deep breaths and thinking calming, coping thoughts, “It was an accident. I can calm down and think of good solutions. I am a good problem solver.”

Coming out of your “shell” when calm and think of some solutions to the problem.

Teaching the turtle technique to young children can happen at large and small group times. A turtle puppet is helpful and keeps children engaged during the lesson. The teacher can begin by introducing the turtle to the class. After the children get a chance to say hello and perhaps give a gentle pet, the teacher shares the turtle's special trick for calming down. The

turtle explains a time he got upset in preschool (selecting an incident familiar to the children is best). He demonstrates how he thinks to himself “STOP,” then goes in his shell and takes three deep breaths. After he takes three deep breaths, he thinks to himself “I can be calm and think of some solutions to solve my problem.” When he is calm, he comes out of his shell and is ready to problem solve peacefully. The teacher can then invite the children to practice turtle's secret. Children can “go in their shells” as a group and together take three deep breaths. Then an individual child can model the “turtle technique” in front of the class. Practice small group activities can include making paper plate turtles with moveable heads and arms that “go in their shell.” Children can then rehearse the steps with the paper plate turtle.

### Preparing children to handle disappointment

Teachers can help children by rehearsing some strategies to handle disappointment before a potentially disappointing incident occurs. For example, Elizabeth knows that some children will be disappointed because she can only choose one “helper” to feed the pet goldfish. Before she announces who the helper will be she says to the class, “Remember, I will only be able to select one fish feeder today, and that may make some of you feel disappointed. What can you do if you feel disappointed?” The children together snap their finger and say, “Oh well, maybe next time.” Elizabeth says, “That is right you can say – ‘Maybe next time.’” After she selects the fish feeder, she reinforces the children who remained calm and handled their disappointment. Similarly, a teacher can prepare a single child for a disappointing

situation before it occurs. Elizabeth knows that Jordan will be disappointed if someone else is on his favorite swing on the playground. Before they leave for outside, she pulls Jordan aside and says, “When we go outside, someone else might be on your favorite swing. And you might feel disappointed. But, what can you do to stay calm?” She supports Jordan to remember his “turtle technique” and helps him think of some solutions such as asking for a turn, saying please and finding something else to do while the child finishes swinging. For added support, because Jordan may not remember when he is in the moment, Elizabeth gives him a small plastic turtle to hold. The turtle prompts Jordan to keep calm and think of solutions.

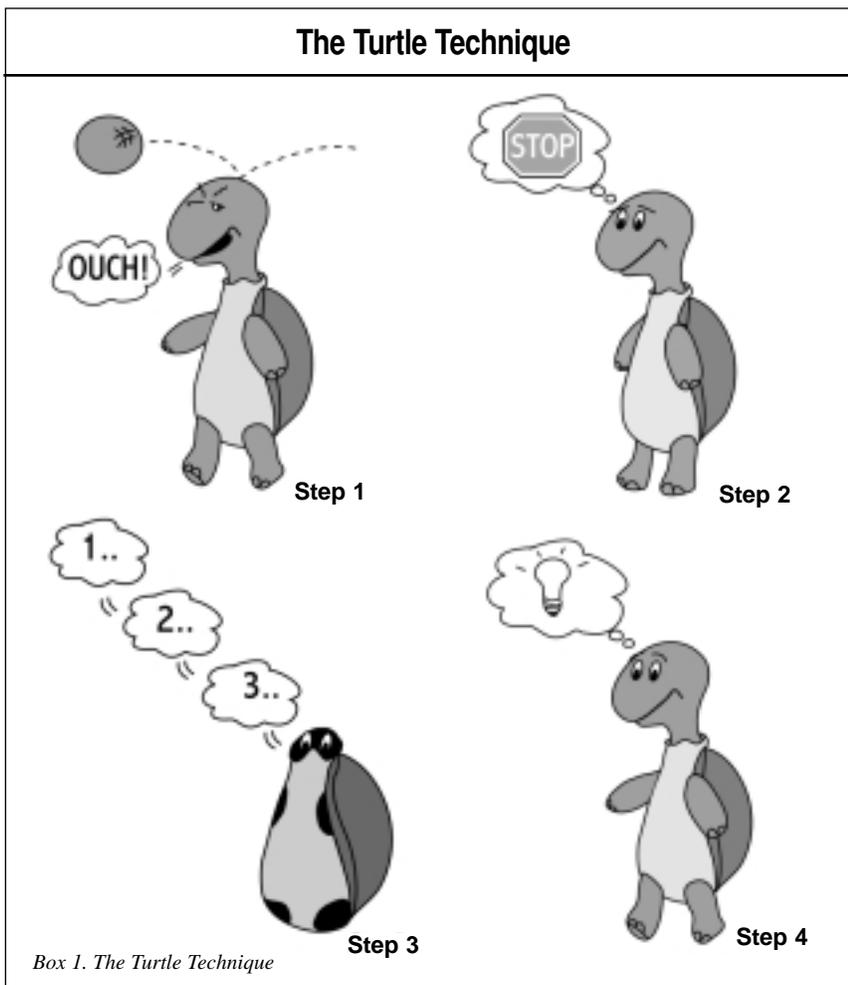
Posting pictures of the turtle technique (see Box 1 ) can remind children of the steps to calming down. These can be posted in several places around the room. Visual cues can be particularly helpful for very young children, children who are easily distracted, and children with communication delays. Strategically placed, the visual cues can serve as: a) a permanent reminder for children—that is, children don’t have to remember the steps of the process, b) an efficient prop for teachers such that they can simply point to the next step and not disrupt the ongoing class activity with lengthy dialogue, and, c) a clear, concrete way to communicate with children the specific behavioral steps for which they are being reinforced.

**Recognize and comment when children remain calm**

There are four key features of a reinforcement system that are likely to help strengthen children’s management of frustration and anger. First, it must be recognized that controlling one’s emotions and subsequent behavior is hard work. As such, reinforcement needs to be frequent and powerful. As frequency depends on the occurrence of behavior, teachers need to be equally vigilant about planning as many opportunities for practice as possible. Teachers may also find that their impact is enhanced when they are especially vigilant to “catch those children being good” who may need the most support. A second key feature is to provide naturally occurring, vicarious reinforcement opportunities. For example, the exchanges that adults have with each other can be planned to achieve this aim. For example, Elizabeth might say, “Wow, Steven you really stayed calm when your watch broke. I’m proud of you.”

Third, we recommend that children be provided the opportunities for self-reinforcement.

For example, children can choose among several favorite items and they can forecast at the beginning of the day what they would wish to acquire for managing anger and frustration. Finally, we recommend keeping reinforcers varied and fun. Box 2 outlines some favorite ideas to consider. This system, when implemented with a high degree of fidelity, sends a clear message to young children that handling anger and impulse in constructive and peaceful ways is greatly valued.



### Turtle Technique Reinforcing Activities

**Super Turtle Award:** A certificate is given out at the end of the day noting how a child controlled their anger and impulse.

**“Turtle Power” Necklace:** A plastic turtle on a string is awarded to a child who was able to remain clam in an upsetting situation.

**“Turtle Token Jar”:** The teacher has a collection of small plastic turtle counters (or green pom-poms). Every time the teacher catches a child remaining calm and handling disappointment – a turtle token is placed in a clear jar. When the jar is full the class gets to have a turtle celebration.

**“Turtle Stack”:** Teachers have a supply of construction paper, turtle cut-outs. Each time a child is caught remaining calm in an upsetting or disappointing situation, the teacher puts a paper turtle on the wall. This turtle can have the child’s name on it. The next turtle earned is stacked on top of the first, and so on until the criterion is reached. The class then gets to have a turtle party.

**“Turtle Tote”:** The teacher selects a child who has done a remarkable job of controlling anger and impulse and sends them home with a stuffed turtle puppet for the evening. The child can then re-tell how they used the turtle technique to their parents.

*Box 2: Fun, Reinforcing Activities*

### Involving parents

Given that there is great variation in child rearing practices specific to teaching children how to deal with frustration and anger, it is essential for teachers to establish effective home-school collaboration. At a minimum we suggest an ongoing

communication system in which a daily report card is sent home that: a) highlights how children have successfully negotiated a frustrating situation and b) suggests ways that family members might further recognize and encourage these accomplishments. An example home report is found in Box 3. In this same spirit of regular communication, teachers may also wish to phone home to report any extraordinary examples of positive child behavior. For many families this can be a most welcome change from the usual events that occasion phone calls from service providers.

For families that are interested in more directed and purposeful intervention in the home, teachers might choose to share a video of themselves modeling strategies, directly teaching a techniques, and reinforcing children for successfully calming down. Moreover, teachers should consider the possibility of arranging opportunities for families to share with each other the ways they have been able to encourage their children’s self-regulation.

### Conclusion

Emotional regulation is fostered not only by the interventions and strategies described in this article, but also by the confidence and security that a warm, responsive relationship with a caregiver provides young children. Trusting relationships allow children to cope with emotions that, initially without even a feeling vocabulary to describe them or strategies to regulate them, can be overwhelming. Moreover this kind of trusting relationship, by definition, means that children will be more attuned, attentive, and responsive as adults model appropriate self-regulation and praise examples that occur throughout the day.

Strategies like the turtle technique and accompanying teaching supports can clearly offer children the cognitive and behavioral repertoire needed to be good managers of their feelings—particularly those occasioned by frustrating and anger-provoking circumstances. However, for children to be truly competent in the regulation of their emotions they often need additional teaching aimed

#### GOOD BEHAVIOR REPORT CARD

Eric Young  
4/10/02



Dear Parent:

Today Eric did a great job of handling frustration and not getting angry when we ran out of his favorite cookies at snack. Instead of getting upset, Eric took three deep breaths and we talked about other good things to eat.

*You can help Eric by:*

Asking him to explain how he calmed down  
Commenting on what a great job that was  
Telling him that you hope he can do that again  
when he is frustrated.

Thank you so much,  
Mr. Phil

*Box 3: Sample letter to parents*

at helping them build a strategy for generating solutions or alternative behaviors to troubling events.

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# Enhancing Emotional Vocabulary in Young Children

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Four-year-old Shantay is an avid builder with blocks. At free play he has busied himself with an elaborate tower construction. To complete his masterpiece he needs an elusive triangle piece. As he searches the room in vain for the last, crucial piece his initial calm hunt becomes more hurried and disorganized. He begins to whimper and disrupt other children's play. His teacher approaches and asks what the matter is. Shantay swiftly turns away to resume his now frantic search. This behavior persists for several minutes until the signal for cleanup is given, whereupon Shantay launches into a major, 15-minute tantrum.

Four-year-old Kelly is relatively new to preschool. She wants to play with her new classmates, but is too shy and frightened to approach and join in with the group. This day at free play she intently watches, as three other girls are absorbed in an elaborate tea party, complete with pandas and wolves. With a forlorn look, Kelly passively observes the ongoing play. Her teacher approaches and says, "Honey, is something wrong?" Kelly shrugs her shoulders. Her teacher persists, "Kelly are you frustrated?" Kelly says, "Yes." Her teacher then reminds her of the class rule; if you feel frustrated, ask a friend or teacher for help. Kelly and her teacher quickly discuss how she might get another

animal and ask her classmates if the zebra can come to the party.

In each of these cases, children experience some of the common, often-repeated challenges of life in preschool. Shantay, in the end, was overwhelmed by his feelings of frustration. Unable to label his legitimate feeling he acted-out—a sure recipe for not getting his needs met. Kelly, equally upset and, in this example, paralyzed temporarily by her social anxiety was able to achieve an outcome she deeply desired. She was able to do this by the good teaching that had previously occurred. She was able to communicate her need and access strategic help to get that need met. In contrast with Shantay, Kelly's experience demonstrates one of the ways that emotional literacy enables children to be socially competent. Consider two other case examples of emotional literacy at work.

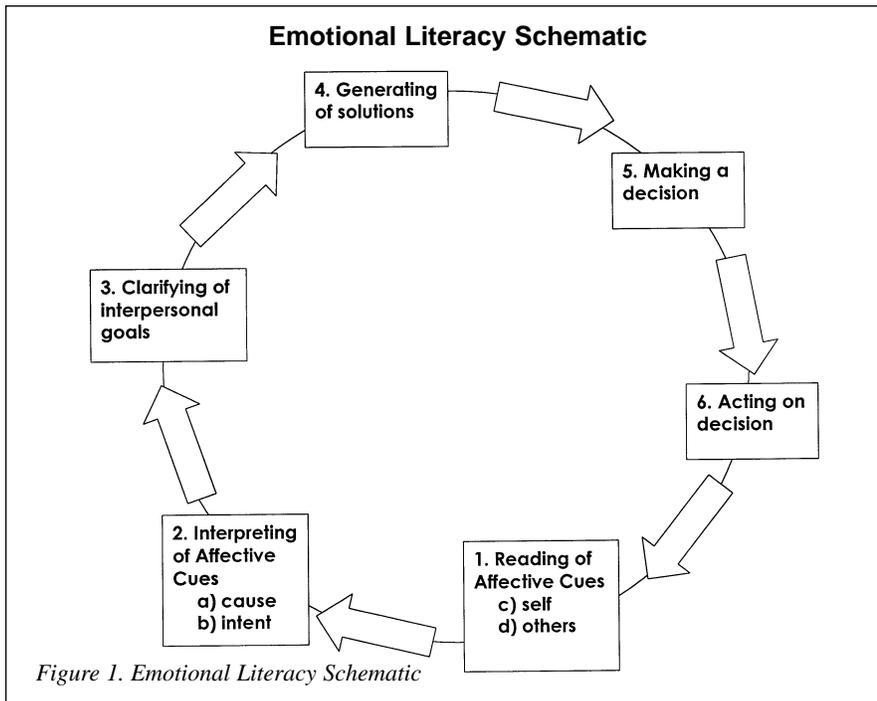
Tony is a master of rough and tumble play. As a game of superheroes commences, Tony runs headlong into other children. Two of his playmates happily reciprocate; smiling and giggling they continue their preschool version of "slam dancing." Tony, however, seeks out other partners as well. In particular, Eddie and Darrin want no part of this. They frown as he approaches and yell, "No." Tony seems to interpret their behavior as an invitation for more. Both Eddie and Darrin start to cry and quickly seek out their teacher who has Tony sit quietly for 2 minutes while play continues. This time-out angers Tony and he pouts alone for the remainder of free play.

Tamika loves to play dress-up. This day at free play she asks Seth to join her, but he says, "Later," and goes about his computer play. Tamika then

gets a big hat and takes it to April. April just frowns and goes about tending to the hamster cage. Tamika next takes the hat to Bo. "Bo," she says, "let's go play." Again she is rebuffed. Finally Tamika finds a play partner in Darrin; who is walking from one activity area to the next.

In these two scenarios great variation can be noted in children's ability to read social cues. Tony's choice of rough and tumble partners is ubiquitous. His inability to read social cues ultimately resulted in a poor outcome. Tamika, on the other hand, was readily able to read social cues and, as a result of good teaching, she had a strategy (try again with another friend) to achieve her desired outcome.

Figure 1 below provides an overall schematic of children's emotional literacy (Crick & Dodge, 1994; Lemerise & Arsenio, 2000). Note first that the foundational element, the necessary context, for emotional literacy development is a supportive, caring relationship (see Joseph & Strain, 2002). In order to act upon the social environment in ways that are collectively supportive and rewarding it is first necessary for children to read the affective cues of others and of themselves. Discriminating among affective states such as anger, sadness, frustration, and happiness requires a vocabulary of feeling words. Like other forms of literacy the richer the vocabulary, the more rewarding the experiences. In this article we will concentrate on how to build a meaningful lexicon of feeling words. This instructional emphasis bears, not coincidentally, a close resemblance to cognitive behavior modification (Meichelbaum, 1976).



Once children are reading and correctly labeling affective cues from words, internal stimuli, and body language they then proceed to make crucial judgments about both the cause and the intent of other's affect (e.g., Tamika has, appropriately, a neutral judgment about peers' lack of interest in her play and she simply proceeds to look until she finds a willing partner). Many children, however, make crucial errors at this point. Partly because of an absence of feeling words they often interpret the behavior of others as intentionally hurtful and eventually act out in ways that invariably lead to social isolation and stigmatization (Kazdin, 1989).

Once children make a judgment about cause and intent they proceed, in this model, to clarify their interpersonal goals. In earlier examples, Tony wanted to play rough and tumble, Tamika wanted to play dress-up, Kelly wanted to join in the tea party, and Shantay just wanted that final block.

The clarification of goals then allows children to generate solutions to achieve their goals. Solutions might include a self-regulation notion such as, "I need to calm down." Solutions might be trying again, finding someone to help, trying a different way, and so on. Solution generation, however, must be followed by a contingent decision-making paradigm. For example, children might be taught to consider if the solution is fair, if it has worked before, if it is a safe, if it would result in positive feelings, and so on. Finally, children act in accordance with their decision. While we will focus only on establishing a vocabulary of feeling words that permit accurate reading of affective cues and accurate interpretation of cause and intent, teachers needs to be aware that many children will require careful step-by-step instruction from reading affective cues to acting on decisions.

Emotional literacy is the ability to recognize, label, and understand feelings in one's self and others. It is a

prerequisite skill to emotional regulation and successful interpersonal interactions and problem solving and is one of the most important skills a child is taught in the early years (Denham, 1986; Webster-Stratton, 1999). Limited emotional literacy, on the other hand, can result in misperceptions of feeling in one's self and others.

### Building emotional vocabulary

In order to correctly perceive feelings in yourself and others, you first have to have words for those feelings, a feeling lexicon. Many children are either "happy" or "mad" and miss all the subtle gradations of feelings in-between because they do not have labels and definitions for those emotions. A large and more complex feeling vocabulary allows children to make finer discriminations between feelings; to better communicate with others about their internal affective states; and to engage in discussions about their personal experiences with the world. Children with disabilities (Feldman, McGee, Mann & Strain, 1993; Walker, 1981) and children from low income families (Eisneberg, 1999; Hart & Risley, 1995; Lewis & Michalson, 1993) have more limited feeling vocabularies than their typically developing and middle income peers. Parents and teachers can foster emotional vocabulary by teaching feeling words and their emotional definitions. Adults can increase children's feelings words by teaching different feeling words and definitions directly; incidentally in the context of conversation and play; and through special activities.

Adults can teach feeling words directly by pairing a picture or photo of a feeling face with the appropriate affective label. Preschoolers are better at recognizing feelings with drawn

pictures at first then progressing to photographs. Children’s books are an excellent way to label feeling faces with children. Many books are written explicitly about feelings and contain numerous feeling words. See Box 1 for some of our favorites.

**Children’s Books featuring feeling faces and words**

- *On Monday when it rained* by Cheryl Kachenmeister,
- *Glad Monster, Sad Monster: A Book About Feelings* by Anne Miranda & Ed Emberley (Illustrator)
- *My Many Colored Days* by Seuss, Steve Johnson (Illustrator), Lou Fancher (Illustrator)
- *When Sophie Gets Angry- Really, Really Angry...* by Molly Garrett Bang
- **Feelings** (Reading Rainbow Book) by Alikei
- *I’m Mad* (Dealing With Feelings) by Elizabeth Crary, Jean Whitney (Illustrator)
- *I’m Frustrated* (Dealing With Feelings) by Elizabeth Crary, Jean Whitney (Illustrator)
- *When I Feel Angry* by Cornelia Maude Spelman, Nancy Cote (Illustrator)

Box 1

Adults can also teach children new feeling words by explicitly providing emotion labels as children experience various affective states. For example, an infant smiles brightly and the parent says, “Oh, you are happy.” Similarly, Kelly’s teacher noticed her aroused state and labeled it “frustrated.” Labeling a child’s affective state allows them to begin to identify their own internal states. This is an important step in learning to regulate emotions (Joseph, 2001; Lochman & Dunn, 1993; Webster-Stratton, 1999). For example, one needs to recognize (this happens most effectively when there is a label) their affective state, say, “angry” before they can proceed

with steps to regulate or calm down. A first step would be to vocalize this negative feeling (“I’m mad”) versus acting out. Using varied and complex feeling words will develop powerful feeling vocabularies for children. Box 2 provides a list of more complex feeling words that 3-5 year olds who are developing language normally know (Joseph, 2001; Ridgeway, Waters & Kuczaj, 1985).

**Feeling Words**

Affectionate	Gloomy
Agreeable	Guilty
Annoyed	Ignored
Awful	Impatient
Bored	Important
Brave	Interested
Calm	Jealous
Capable	Joyful
Caring	Lonely
Cheerful	Lost
Clumsy	Loving
Confused	Overwhelmed
Comfortable	Peaceful
Cooperative	Pleasant
Creative	Proud
Cruel	Relaxed
Curious	Relieved
Depressed	Safe Satisfied
Disappointed	Sensitive
Disgusted	Serious
Ecstatic	Shy Stressed
Embarrassed	Strong
Enjoying	Stubborn
Excited	Tense
Fantastic	Thoughtful
Fearful	Thrilled
Fed-up	Troubled
Free	Unafraid
Friendly	Uncomfortable
Frustrated	Uncomfortable
Gentle	Weary
Generous	Worried

Box 2

Adults can also plan special activities to teach and reinforce the acquisition of feeling words. Children can “check in” each morning by picking a feeling face picture that best depicts their affective state and sticking it next to their name. Children can be encouraged to change their feeling face

throughout the day as their feelings change. Teachers can make feeling dice by covering small milk cartons with paper and drawing a different feeling face on each side. Children can toss the dice; label the feeling face and describe a time they felt that way. Box 3 lists some other fun feeling activities.

INSERT BOX 3 ABOUT HERE

**Feeling Activities**

**Pass the hat:** The teacher cuts out pictures that represent various feeling faces and places them in a hat (or large envelope) that is passed around the circle as music plays. When the music stops, the child holding the hat picks out a picture designating an emotion and is asked to identify it, express how they look when they feel that way, or describe a time when he or she felt that way.

**Feeling hunt:** The teacher puts “feeling face” pictures up all around the room (and around the building if possible). Children can be given child-size magnifying glasses, and they walk around looking for different feeling faces. When they find one, they label it and tell a time they felt that way. An expansion of this activity is to provide each child with a “Feeling Face BINGO Board” and they can cross out faces on their boards as they find them around the room.

**Mirrors:** Children are given small hand held mirrors at circle time or small group. As the teacher reads a story with many feeling words in it – the children make the face to the corresponding affective expression while looking at themselves in their mirrors. Then, the children put their mirrors down and show their peer their “feeling face.”

**Changing faces:** During small group time, children make paper plate faces. The teacher attaches the “mouth” and “eyebrows” to the paper plate with brads. This allows

Box 3

(continued)

### Feeling Activities

(continued)

the child to change facial expressions on their plate by changing the mouth from a smile to a frown, and the eyebrows from facing in (angry, frustrated, etc.) to out (worried, scared, surprised, etc.). Children can color the rest of the faces. The teacher can then read a story and pause after key incidents and ask the children to show how they would feel by changing their paper plate face appropriately.

**Singing**, “If you’re happy and you know it...”: Teachers can add new verses to “If you are happy and you know it” as they introduce new feeling words to the class.

- If you’re happy and you know it, hug a friend
- If you’re sad and you know it, cry a tear – “boo-hoo”
- If you’re mad and you know it, use your words “I’m mad”
- If you’re scared and you know it, get some help, “HEEELLLLPPP!”
- If you’re silly and you know it, make a face, “BBBLLLLUUUUHHHH!”

For more feeling activities see *Dinosaur School* (Joseph, Webster-Stratton & Reid, 2002; Webster-Stratton, 1990), *PATHS* (Kusche & Greenberg, 1994), or *Second Step* (Committee for Children, 2002)

Box 3

### Teaching children to recognize feelings in others

Children can be taught explicitly how to identify feelings in other people. Identifying feelings in others involves noticing facial expressions and body language, listening to the tone of voice and, considering the situational context.

Young children can be taught how to detect the cues of how someone is feeling by having their attention drawn to the salient physical features of

someone’s affective state. Teachers can model detecting how someone is feeling by looking at their face (noticing their eyebrows, their eyes, and their mouth). This can be accomplished directly and more incidentally throughout the day. Children can then be provided with practice activities and opportunities to notice facial expressions and body language to determine how someone is feeling.

Teachers can model for children how they can tell how someone is feeling by listening to the tone of the person’s voice. Teachers can close their eyes and a puppet or another adult can make a statement such as, “UGGGHH, I can’t get my shoes tied!” and then guess that the person is feeling frustrated. The children can practice by closing their eyes and listening to the teacher make statements using varying tones, then guess how the teacher is feeling.

Teachers can also teach children to think about how someone might feel in certain situations. Children’s literature is a very effective for teaching and practicing this skill. Read a story aloud, pick a situation in the story and ask the children to consider the character’s reactions and feelings. This question invites further conversation. Continue discussing situations for as long as you have the children’s interest. The children’s books in Box 1 can be used very effectively in this matter.

### What do you do with a feeling?

Adults can model emotional regulation skills for children by verbalizing the course of action they will take in order to calm down or cope with certain feelings. For example, a teacher doesn’t notice a loose lid on the glitter bottle and consequently spills the contents all over the table and floor. In front of the children she says, “Oh no! Boy, do I feel frustrated. I better take some deep breaths to calm down.” Kelly’s teacher developed a classroom

rule that when you feel frustrated you ask a teacher or peer for help. In this case, when the teacher labels a child’s affective state as “frustrated” the child is primed to ask for help. Eventually the child will be able to label the feeling themselves and seek out an appropriate solution. Adults can proactively teach young children coping strategies for many emotions (taking a deep breath when mad; requesting a break when annoyed; talking to someone when sad, etc.) through modeling and role plays. Positive emotions sometimes need to be regulated as well.

### Conclusion

In classrooms that devote planned attention to helping children acquire a rich and varied feeling vocabulary we may expect fewer challenging behaviors and more developmentally sophisticated and enjoyable peer social relations (Denham, 1986). Emotional vocabulary is, however, only part of this picture. For emotional vocabulary teaching to be effective adults must first spend the time necessary to build positive relationships with children (Joseph & Strain, 2002). Within this foundational context of a warm and responsive relationship with children, teachers can maximize their influence to enhance emotional vocabulary.

As the emotional literacy schematic (Figure 1) suggests, having feeling words and being able to recognize emotions in others and in oneself is a necessary but insufficient step toward helping children achieve social and emotional competence. Adults also need to assist children in developing and becoming fluent with the skills of emotional regulation (e.g., calming down; controlling anger and impulse) and problem-solving (e.g., generating solutions to interpersonal problems that are safe, equitable, and result in positive feelings).

In the Box 4 we provide teachers with a brief checklist of classroom

characteristics known to promote emotional literacy.

### Characteristics of Classrooms that Foster Emotional Vocabulary

- Photos of people with various emotional expressions are displayed around the room
- Books about feelings are available in the book corner
- Teachers label their own feelings
- Teachers notice and label children's feelings
- Teachers draw attention to how a child's peer is feeling
- Activities are planned to teach and reinforce emotional literacy
- Children are reinforced for using feeling words
- Efforts to promote emotional vocabulary occur daily and across all times of the day

Box 4

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# “You Got It!”

## Teaching Social and Emotional Skills

Lise Fox and Rochelle Harper Lentini

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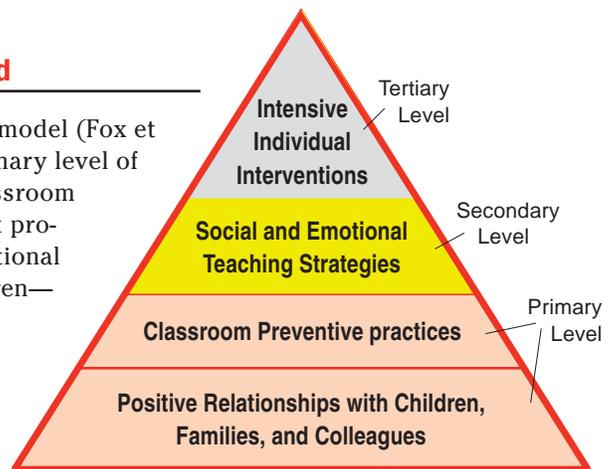
Teaching Pyramid diagram adapted from L. Fox, G. Dunlap, M.L. Hemmeter, G.E. Joseph, & P.S. Strain, “The Teaching Pyramid: A Model for Supporting Social Competence and Preventing Challenging Behavior in Young Children,” *Young Children* 58 (July 2003): 49.

Photos courtesy of the authors. Illustration © Adjoa Burrowes.

**EARLY EDUCATORS REPORT** that one of their biggest challenges is supporting young children who have problem behavior beyond what might be expected (Buscemi et al. 1995; Hemmeter, Corso, & Cheatham 2005). Some children engage in problem behavior that is typical of a particular stage of development as they build relationships with peers and adults and learn to navigate the classroom environment. For example, a toddler might grab a cracker from another child’s plate because she is still learning to use words to ask for what she wants or needs. What troubles teachers is how to meet the needs of children who have persistent problem behavior that does not respond to positive guidance or prevention practices. The extent of this problem is highlighted by recent reports on the rates of expulsion of children from preschool programs (Gilliam 2005).

### The teaching pyramid

The teaching pyramid model (Fox et al. 2003) describes a primary level of universal practices—classroom preventive practices that promote the social and emotional development of all children—built on a foundation of positive relationships; secondary interventions that address specific social and emotional learning needs of children at risk for challenging behavior; and development of individualized interventions (tertiary level) for children with persistent problem behavior (see the diagram “The Teaching Pyramid”). The model is explained more fully in “The Teaching Pyramid: A Model



**The Teaching Pyramid**

Teachers may find that there are children whose lack of social and emotional skills or whose challenging behavior requires more focused attention.



for Supporting Social Competence and Reinventing Challenging Behavior in Young Children,” in the July 2003 issue of *Young Children*.

The foundation for universal practices begins with nurturing and responsive caregiving that supports children in developing a positive sense of self and in engaging in relationships with others. At this level, teachers focus on their relationships with children and families. Universal class-

room practices include developmentally appropriate, child-centered classroom environments that promote children’s developing independence, successful interactions, and engagement in learning. While universal practices may be enough to promote the development of social competence in the majority of children in the classroom, teachers may find that there are children whose lack of social and emotional skills or whose challenging behavior requires more focused attention.

In this article we look at the secondary level of the teaching pyramid, which emphasizes planned instruction on specific social and emotional skills for children at risk for developing more challenging behavior, such as severe aggression, property destruction, noncompliance, or withdrawal. Children who may be considered at risk for challenging behavior are persistently noncompliant, have difficulty regulating their emotions, do not easily form relationships with adults and other children, have difficulty engaging in learning activities, and are perceived by teachers as being likely to develop more intractable behavior problems.

Research shows that when educators teach children the key skills they need to understand their emotions and the emotions of others, handle conflicts, problem solve, and develop relationships with peers, their problem behavior decreases and their social skills improve (Joseph & Strain 2003). Emphasis on teaching social skills is just one component of multiple strategies to support a child at risk for challenging behavior. Additional critical strategies include collaborating with the family; addressing the child’s physical and mental health needs; and offering the support of specialists and other resources to address the child or family’s individual needs.

### Reframing problem behavior

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The teaching pyramid model guides teachers to view a child’s problem behavior as serving a purpose for that child. Some children may use problem behavior instead of socially conventional and appropriate behavior to avoid or join interactions and activities, obtain or avoid attention, and obtain objects. For example, a child who wants another child’s toy may hit the other child instead of asking to have a turn with the toy. Other children may use problem behavior to express their disappointment or anger to the teacher, rather than asking for help or sharing their feelings with words. For example, a child may throw toys or destroy materials when frustrated rather than asking a teacher for help.

### Reasons for challenging behavior

Children may use problem behavior to get their needs met for a variety of reasons. For example, a child may have language development problems, social-emotional delays, difficulties with peer interactions, or developmental disabilities;

## Social and Emotional Skills to Teach

- Following rules, routines, and directions
- Identifying feelings in oneself and others
- Controlling anger and impulses
- Problem solving
- Suggesting play themes and activities to peers
- Sharing toys and other materials
- Taking turns
- Helping adults and peers
- Giving compliments
- Understanding how and when to apologize
- Expressing empathy with others' feelings
- Recognizing that anger can interfere with problem solving
- Learning how to recognize anger in oneself and others
- Learning how to calm down
- Understanding appropriate ways to express anger

she may have experienced neglect or trauma; or she may simply have not had opportunities to learn appropriate social or communication skills before entering preschool.

When teachers view challenging behavior as actions children use to get their needs met, they can reframe problem behavior as a skill-learning or skill-fluency issue. *Skill fluency* refers to a child's ability to use a skill consistently and independently. Children with problem behavior may not have appropriate social or communication skills or may not use those skills well in a variety of situations. Reframing problem behavior as a skill-instruction issue opens the door to the development of effective strategies teachers can implement in the classroom: if young children with problem behavior are missing key social and communication skills, then a next step is to teach them those skills!

### A skill-learning issue

Many skills are important in children's development of relationships with adults and peers. Skills help children learn self-regulation (ability to respond appropriately to anxiety, distress, or uncomfortable sensations) and how to problem solve (see "Social and Emotional Skills to Teach," left). Young children at risk for challenging behavior (children at the secondary intervention level) may not be fluent in or have the ability to use these skills. The teaching pyramid model encourages early educators to teach children these skills systematically, using planned procedures within developmentally appropriate activities and with sufficient intensity to ensure that children learn the skills quickly and can use them when needed (Grisham-Brown, Hemmeter, & Pretti-Frontczak 2005).

### Teaching social skills

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In thinking about how to teach social skills systematically, teachers need to be aware of the three stages of learning (Bailey & Wolery 1992) (see "Stages of Learning," p. 4). The first stage is skill acquisition—the skill is introduced to the child; the second stage is fluency—the child has learned the skill and can use it easily; and the final stage of learning is skill maintenance and generalization—the child can use the skill over time and in new situations. In this article, we present strategies for addressing each stage of learning in the instruction of social skills.

### Introducing a new skill: Show-and-tell

**Explain the new skill.** When you first teach a child a social or emotional skill, it is important to ensure that you have explained the skill in concrete terms so the child understands what the skill is and when to use it. Children who have social development challenges may find the nuances of social behavior difficult to interpret. Thus, it is important to identify the skill ("ask to take a turn"), demonstrate or identify when it is used ("Watch Emily ask to play with the water wheel"), and link the idea or concept to other skills the child has ("When you see your friends playing with a toy you want, you can watch them play, you can wait for a turn, or you can ask them for a turn").

It is important to identify the skill, demonstrate or identify when it is used, and link the idea or concept to other skills the child has.

## Stages of Learning

### Stage 1—Skill acquisition: Show-and-tell

The teacher introduces a new skill to a child by giving concrete examples of what the skill is and how to use it. For example, the teacher may say, “It’s hard to wait until it is your turn to ride a trike. I’m going to help you learn how to wait.”

### Stage 2—Skill fluency: Practice makes perfect

The teacher provides many opportunities to practice the skill so the child can eventually use it with ease. Practice opportunities may include prompting the child (“How can you ask to play with Brendan?”), helping the child remember to use the skill (“I know you are disappointed and you want a turn right now. What can you do instead?”), and identifying situations that call for the use of the skill (“We have three children who want to sit at the art table and only one chair. What can we do?”).

### Stage 3—Skill maintenance and generalization: “You got it!”

The teacher continues to promote the child’s use of the skill in familiar and new situations. For example, when the child uses his newly learned skill of giving compliments with his mother, the teacher says, “You gave your mom a compliment! Look, she’s smiling because you said you like her haircut.”

Adapted from D.B. Bailey & M. Wolery, *Teaching Infants and Preschoolers with Disabilities*, 2nd ed. (New York: Macmillan, 1992).

**Demonstrate it.** For many children, it is helpful to provide both a positive example of someone using a skill and an example in which the skill is not used. For example, you may ask children to demonstrate the wrong way to ask for a turn and the correct way to ask for a turn. In this manner, children can practice under a teacher’s guidance and receive additional information about how the skill is appropriately used.

**Give positive feedback.** When children first learn a new skill, they need feedback and specific encouragement on their efforts to use the skill. The importance of feedback cannot be overstated! Think, for example, about a time when you learned something new—such as a language, a sport, or a craft. The instructor most likely gave you feedback: “That’s right, you did it” or “That looks good, I think you are getting it.” Feedback may provide the support a child needs to persist in practicing a newly learned skill. Have you ever tried to learn a new skill and quit when you were in the early learning stages? Perhaps you did not receive encouragement or maybe those initial attempts were so uncomfortable or awkward that you decided to stop practicing.

**Provide opportunities for practice.** There are a variety of instructional methods for teaching new social and emotional skills (Webster-Stratton 1999; Hyson 2004; Kaiser & Rasminsky 2007). An important teaching practice at the acquisition stage of learning is providing multiple opportunities for a child to learn a skill in meaningful contexts—that is, in activities that are part of the child’s natural play or routines. The more opportunities for practicing, the quicker the child will learn the skill. The box “Classroom Teaching Strategies” (see p. 5) lists a variety of ways to teach social and emotional skills within typical classroom activities.

When a child learns a new skill, he needs to practice to build fluency in the skill.

### Building fluency: Practice makes perfect

When learning to play a new song on the piano, the player must practice before the song becomes easy to play. Similarly, when a child learns a new skill, he needs to practice to build fluency in the skill. When teaching social skills, teachers need to ensure that a skill is not only learned but also practiced often enough that the child becomes fluent in the skill and can easily use it. Consider the following example:

**Madison struggles when playing with peers. Recognizing that Madison needs extra help in learning how to ask others to play with toys, her teacher, Mr. Jackson, decides to read the children a story about taking turns and asking to join play during group time. On that same day, several times during center activities and outdoor play, Mr. Jackson reminds Madison to “ask to play.” After that day of focused instruction on using the skill, whenever Madison tries to enter a game without asking to play, Mr. Jackson provides corrective feedback or redirection, stating, “Madison, you need to ask to play” or “Madison, you may not grab toys; ask to play.” A month later, Madison still has difficulty entering play and asking to play with toys.**

Why did Madison have difficulty learning the skill? Perhaps Mr. Jackson did not provide enough opportunities to practice, so Madison quickly forgot to use the new skill. Or possibly Madison had not learned when and how to use the skill: she may not have become fluent in the skill.

## Classroom Teaching Strategies

Instruction is more effective when it is embedded in the meaningful activities and contexts that occur throughout a child's day (Katz & McClellan 1997). Here are suggestions and examples for teaching social skills within classroom activities.

**Modeling.** Demonstrate the skill while explaining what you are doing. As you pass a block to a child, say, "Look, I am sharing my blocks with my friend."

**Modeling with puppets.** Use puppets to model the skill while interacting with a child, an adult, or another puppet. A puppet can explain to the teacher and the class how she became angry and hit her brother to get a toy. You can ask the puppet to consider other solutions and then discuss what a child might do when he or she wants a toy that another child is using.

**Preparing peer partners.** Ask one child to show another child the skill or to help the child use the target skill. You can prompt the peer by saying, "Carmen, Justin is still learning how to wait and take turns. Since you know what to do, can you help him? Show him the line-up picture while you wait for a drink at the water fountain."

**Singing.** Introduce a new skill through a song. To teach children to trade toys, pass out small toys during a large group activity, then sing the following song to the tune of "Mary Had a Little Lamb" and practice trading:

I can be a problem solver, problem solver, problem solver,  
I can be a problem solver, let me show you how.

Maybe I can trade with you, trade with you, trade with you,  
Maybe I can trade with you; let me show you how.

Children then practice trading toys with each other.

**Doing fingerplays.** Introduce the skill with a fingerplay, then follow up with a discussion or story. While showing fingers, have children recite this rhyme:

One little friend cried, "Boo-hoo"; a friend gives a hug  
and then there are two.

Two little friends share with me; we play together and  
that makes three.

Three little friends ask for more; they all say "Please,"  
and then comes four.

Four little friends take turns down the slide; another  
comes to play, and that makes five.

Five little friends have fun at school, because they  
follow every rule.

**Using a flannel board.** Introduce a new skill using flannel board activities and stories. For example, to teach turn taking you could have flannel pieces for Humpty Dumpty and change the rhyme so that "All the king's horses and all the king's friends / Work as a team to put Humpty together again." As you say the rhyme, have the children take turns putting the pieces (castle, bricks, Humpty Dumpty pieces, horses, and friends) on the flannel board. When you finish the rhyme, extend the activity by talking about how Humpty felt when he sat on the wall; when he fell; and when his friends helped put him back together.

**Using prompts.** Give a child verbal, visual, or physical prompts to use a skill during interactions and activities. When a child who has difficulty with initiating play interactions moves toward a group playing together, you might say privately, "Remember to use your words and ask to play."

**Giving encouragement.** Provide specific feedback when the child uses the skill. For example, describe what the child did: "You asked Joey for a turn. I saw that you two had a good time playing together." Encouragement can be verbal or a signal (a thumbs-up or high five).

**Using incidental teaching.** Guide the child to use the skill during interactions and activities. Quietly say to the child, "Quan, I see that you are very angry that all the trucks are being used. What can you do when you are angry? Let's go over the steps."

**Playing games.** Use games to teach problem solving, words that express feelings, identification of others' feelings, friendship skills, and so on. Place photographs of each child in a bag. Have the children take turns pulling a photo out of the bag and offering a compliment to the child in the photo.

**Discussing children's literature.** Read books to help teach friendship skills, feeling words, problem solving, and so on. While reading a story, pause and ask the children how a character in the story might feel or ask them to suggest ideas for solving the character's problem.

Additional ideas for many of these activities may be found on the Web site of the Center on the Social and Emotional Foundations for Early Learning, at [www.csefel.uiuc.edu](http://www.csefel.uiuc.edu). Under **Resources**, click on **Practical Strategies**.

Find more activities in "Teaching Children a Vocabulary for Emotions," and "Child-Friendly Ideas for Teaching Problem Solving" by Lise Fox and Rochelle Harper Lentini, in this issue of **Beyond the Journal**.

To ensure that children learn a skill to the fluency level, teachers can use several strategies. They may offer the child multiple opportunities to practice, help the child link the new concept or skill to other social skills, or remind the child in advance so he or she can use the skill or concept in new situations.



Scaffolding the use of the skill within interactions may be effective. For example, the teacher can monitor child interactions and offer a verbal bridge for problem solving when children have conflicts or face difficulties (Katz & McClellan 1997). The teacher can pose questions like “What else can you do?” to help children problem solve or “How do you think Emily felt when you said that?” to help them take the perspective of the other child. When scaffolding, the teacher need only offer as much support or guidance as the child requires to navigate the situation, and she should be cautious about becoming overly directive or controlling the situation.

Additional teaching techniques to promote fluency include reminding the child, as she goes into a situation, to use the new skill; creating opportunities to practice by staging situations that call for the skill (creating a problem-solving task or plan-

ning an activity that requires sharing or taking turns); and providing the child with peer buddies who can remind her to use the new skill.

In the fluency stage of learning, the teacher should continue to offer encouragement when the child is practicing the skill.

**Teachers can offer repeated opportunities to practice the skill in familiar and new situations.**

### **Promoting maintenance and generalization: “You got it!”**

For a child acquiring a new social skill, the final stage of learning is maintaining and generalizing the skill—learning it to the point that it becomes part of the child’s social skill repertoire and he uses it in familiar and in new situations. When teaching children social skills, it is important to ensure that children reach this stage.

For many children, moving from skill acquisition to skill generalization occurs quickly and seamlessly with little teacher effort. However, for children who are at risk for social development delays or challenging behavior, a more systematic approach may be needed.

To ensure maintenance and generalization of a new skill, after introducing the skill and providing practice opportunities, teachers can offer repeated opportunities to practice the skill in familiar and new situations. At this stage of learning, children continue to need occasional encouragement to remember to use the skills, and they need feedback on the successful use of the skill in new situations. The example that follows describes how Ben’s teacher supported and encouraged Ben to use his newly learned problem-solving ability in new situations.

Four-year-old Ben tends to get very frustrated when playing with his peers, especially on the playground. He screams, pushes children, and grabs toys. Ms. Mitchell, his teacher, has introduced a four-step problem-solving process to the class, using a puppet (who has a problem to solve) and picture cards depicting the problem-solving process: (1) Ask yourself, What's my problem? (2) Think, think, think of some solutions; (3) What would happen? and (4) Give it a try.

Although Ben uses the process during play times, Ms. Mitchell realizes that he needs additional prompting to problem solve in new situations. Today the class is visiting the children's museum. Before entering, Ms. Mitchell takes Ben aside and reviews the problem-solving steps.

Inside the museum, there are several magnet activity stations, all occupied. Knowing that Ben will want to play with the magnets, Ms. Mitchell moves near him to give him support. She reminds Ben about the problem-solving steps: "Remember, think, think, think." Ben then says to a child playing with the magnets, "Can I play too?" The child hands him a magnet and they build together. Ms. Mitchell looks at Ben, winks, and smiles.

The goal at this stage of instruction is for children to use the social skills they have learned in a variety of situations, helping them build satisfying relationships with children and adults. They are then motivated by their successes and the joy they experience playing and developing relationships. As children develop new social skills and grow in their social competence, they gain access to a wider variety of play and learning opportunities; increase the duration and complexity of play interactions and engagement in social interactions; build friendships with peers; and feel good about themselves.

## Conclusions

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It is critically important that early educators identify children who need focused instruction—children who may be considered at risk for challenging behavior. Teachers can guide them to learn new social and emotional skills, teaching them within child-centered, developmentally appropriate activities. It is equally important to design a systematic teaching approach that allows such children to acquire and use their new skills easily, over time, and in a variety of situations.

When young children do not know how to identify emotions, handle disappointment and anger, or develop relationships with peers, a teacher's best response is to teach!

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## REGULAR ARTICLES

# *Functional Communication Training with Toddlers in Home Environments*

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*This study was conducted to examine the effects of functional communication training when used by mothers to address the serious challenging behaviors of toddlers. Multiple baseline (across home routines) designs were used with two mother-child dyads. The data showed mothers used the procedures correctly and interventions produced reductions in the children's challenging behaviors and increases in their use of communicative replacement skills. Social validity data supported the clarity of the effects and indicated that the procedures were viewed by the mothers as feasible and as having acceptable contextual fit. Results are discussed in relation to the importance of resolving challenging behaviors early in a child's life, and the need for additional research on effective strategies that can be used by typical intervention agents in natural settings.*

In recent years, greater attention has been paid to the problem of young children's challenging behaviors (e.g., New Freedom Commission on Mental Health, 2003; Shonkoff & Phillips, 2000). The prevalence of significant difficulties in the social, emotional, or behavioral adjustment of young children has been estimated at 10% to 25% (Campbell, 1995; Lavigne et al., 1998; West, Denton & Germino-Hausken, 2000). More important, the long-term prognosis for children with serious behavior challenges is characterized by poor socialization, school failure, and an increased likelihood of adolescent and adult criminality (Coie & Dodge, 1998; Dishion, French, & Patterson, 1995; Kazdin, 1993; McCord, 1978; Olweus, 1991 Reid, 1993). A growing number of scholarly writings and policy documents are calling for concerted efforts to provide effective prevention and intervention efforts for children at younger ages than have been considered in earlier years (e.g., Fox, Dunlap, Hemmeter, Joseph, & Strain, 2003; New

Freedom Commission on Mental Health, 2003; Shonkoff & Phillips, 2000).

While systematic intervention for young children with behavioral difficulties is still rare, preliminary data suggest that the knowledge needed to produce effective prevention and intervention practices is available (Walker, Ramsey, & Gresham, 2003–2004). Studies have shown a number of programs and practices are associated with reductions in challenging behavior and increases in the prosocial responding of young children (e.g., Conroy, Dunlap, Clarke, & Alter, 2005; Joseph & Strain, 2003). Much progress treating challenging behavior has come from research that has helped to illuminate the variables maintaining such behaviors, and applied studies that have used this increased understanding to create increasingly effective intervention strategies (e.g., Bambara & Kern, 2005; Carr, 1977).

Functional communication training (FCT) is an intervention technique derived from

a body of research that has demonstrated the functional equivalence of challenging behaviors and communication (Carr & Durand, 1985; Durand, 1990). In FCT, a functional assessment is conducted to determine the functional purpose of a child's challenging behavior. This function differs from child to child and across situations, and is ordinarily determined to be an act designed to obtain attention or some tangible item (e.g., food, a toy, or a favored comfort item), or to escape or avoid an unpleasant interaction (e.g., request to engage in a disliked activity or social contact). When the function of the challenging behavior is determined, a functionally equivalent communicative behavior is selected to serve as a replacement. The replacement behavior can be a spoken word or phrase (such as "Look at me," "I'm hungry," or "May I have a break?"), or it can be a gesture or an idiographic form of communication. The idea is that use of the replacement behavior that results in the desired reaction (e.g., getting attention, escaping an unpleasant task) should reduce or eliminate the challenging behavior by making it redundant and unnecessary.

Since Carr and Durand's (1985) first empirical documentation of FCT, hundreds of studies have systematically replicated the finding, or have used FCT as an important part of a comprehensive, multi-component intervention plan (e.g., Carr et al., 1999). FCT has been used effectively with children, adolescents, and adults with a variety of disabilities, and in diverse settings. In addition, several studies have considered the use of FCT in home settings with parents as principal intervention agents (e.g., Andorfer, Miltenberger, Woster, & Rortvedt, 1994; Koegel, Stiebel, and Koegel, 1998; Wacker et al., 1998). These investigations have described favorable results (e.g., Derby et al., 1997) and support the use of FCT as a strategy for addressing challenging behaviors of young children.

Although considerable research has been conducted on FCT, few data pertain to the use of FCT with toddlers in natural environments in the context of typical home rou-

tines. Our review of the literature identified very few FCT studies that included children less than 3 years of age (Andorfer et al., 1994; Derby et al., 1997; Wacker et al., 1998; Winborn, Wacker, Richman, Asmus, & Geier, 2002), and these typically included one toddler among older preschool children. The purpose of this study was to add to the literature by studying the use of FCT with toddlers in natural home routines.

## **METHOD**

### ***Participants and Settings***

Two children and their mothers participated in this investigation. The children were participants in a family-centered, community-based program designed to provide training and assistance for young children with serious challenging behaviors (Fox & Dunlap, 2002). They were referred to the program by clinicians in the county's early intervention program funded in part by Part C of the Individuals with Disabilities Education Act. Criteria for participation in this study were that the child was between 24 and 36 months of age, the child and family lived in the program's service area (within a large county in a southeastern state of the United States), and the child's challenging behavior was observed to be a serious concern in at least three distinct settings.

The first participant, Alexis, was 33 months of age at the beginning of the study. Alexis was assessed as part of her participation in the Part C early intervention program and was found eligible for services due to an expressive language delay. On the Mullen Scales of Early Learning (Mullen, 1995) administered at 29 months of age, she was scored as having a 21 month age-equivalent score in expressive language. Alexis' mother reported that Alexis used speech to request preferred toys and food items, but did not use speech for other purposes. At the time of the study, Alexis was receiving speech therapy within her home. Her most conspicuous challenging behaviors included hair pulling, spitting, and whining, which occurred at home and in school and community settings.

The Temperament and Atypical Behavior Scale (TABS; Bagnato, Neisworth, Salvia, & Hunt, 1999) was completed with Alexis' mother as informant and the results on the Temperament and Regulatory Index (TRI) of the TABS revealed a percentile score of less than 1%, marking severe behavioral dysfunction. Alexis's immediate family (European American) consisted of her mother (Ms. Taylor), father, and a 5-year-old sister.

The second participant, Maria, was 30 months of age and was referred due to concerns of verbal outbursts, kicking, hitting, and pushing at home and in the community. Maria was identified as having a speech delay by the Part C diagnostic and assessment team. Her age-equivalent scores on the Mullen Scales of Early Learning administered at 28 months of age were 20 months in expressive language and 24 months in receptive language. Maria had an expressive vocabulary of about 70 words. Maria was not receiving speech therapy because her mother failed to follow through with her appointment for a speech-language evaluation that would determine the needed services. Ms. Lopez, described Maria as "bossy" and indicated that she did not play well with others. Like Alexis, Maria's TRI score (with her mother as informant) was less than the first percentile. In addition, Maria's mother completed the Child Behavior Checklist (CBCL; Achenbach & Rescorla, 2000), and the results indicated that Maria's Total Problems and Externalizing scores were above the 90<sup>th</sup> percentile, though her scores on the Internalizing subscales were in the normal range. Maria lived with her mother and younger brother (7 months old) and maternal uncle. The family was Hispanic American. Maria's mother received public assistance in the form of food stamps, assistance from WIC (Women, Infants, and Children), and Medicaid.

Both Alexis and Maria were able to imitate spoken words and short phrases. Before intervention, neither child had used any of the spoken phrases that were selected as replacement behaviors. Their abilities to

imitate suggested that acquisition of the phrases would not be difficult.

The study was conducted in each child's home environment within parent-identified routines or activities that were associated with challenging behaviors. The parents were asked to identify regular or predictable activities or events during the day that triggered their child's challenging behaviors. The routines were identified by the mothers and confirmed through direct observation by research staff as being problematic. All routines for both participants were carried out in the living rooms of the participants' homes.

### ***General Procedures***

The study was designed to determine if functional communication training would be effective in addressing challenging behaviors exhibited by toddlers in home routines when implemented by the children's mothers. The procedures included (a) selecting home routines deemed especially problematic by the children's mothers, (b) conducting functional assessments, (c) training the mothers to use functional communication training, and (d) having the mothers implement the procedures in the home in accordance with a multiple baseline (across routines) design. Measures were obtained on the children's challenging behaviors and use of replacement behaviors (i.e., alternative communicative behaviors) and the mothers' use of the functional communication strategies. Data were also obtained on the severity of challenging behaviors in each session, and on social validity and procedural fidelity. All parent training and coaching were provided by two early intervention specialists affiliated with the community-based program in which Alexis and Maria were participants. These individuals had received extensive training in early intervention and positive behavior support, and were completing a master's degree program in applied behavior analysis.

### ***Routines***

Parents of the participants identified and selected the routines that were of greatest

concern to them. Identification of the routines by the mothers followed general discussion regarding the children's challenging behaviors and, then, a request to nominate those routines that were the most problematic. In all cases, the children's mothers indicated that they tended to avoid engaging in each of the routines because of the likelihood of challenging behaviors. The order in which routines were subjected to intervention corresponded to the level of severity described by the mothers. To facilitate consistency across sessions, each routine was video-recorded, described in written form, and scripted with designated beginnings and endings.

The first routine for Alexis was *Transition*. This routine began when Alexis's mother and Alexis were playing together. Alexis's mother told Alexis she was getting up to do the dishes or some other kind of domestic task and then attempted to leave the area. The routine ended when Alexis's mother either resumed play in response to challenging behavior or to an appropriate request. Alexis's second routine was labeled *Personal Time*. This routine began when Alexis's mother sat down on the couch to read a book or watch television and ended when she was interrupted by Alexis's challenging behaviors or appropriate requests. The third routine was *Diverted Attention*. This routine began when Alexis's mother was talking to another adult and ended when Alexis's mother discontinued her conversation with that person, as a result of Alexis's challenging behaviors or appropriate request.

For the second participant, Maria, the first routine was designated as *Sharing*. This routine started when Maria's younger brother or mother began to manipulate a toy that Maria preferred. This often occasioned either challenging behaviors by Maria or a preventive intervention by Maria's mother (e.g., offering a different toy to Maria's brother). Because the responses varied across sessions, it was decided to designate the routine as ending after 2 min. The second routine was titled *Diverted Attention*. This routine began with Maria's mother talking

with another adult and ended when Maria's mother terminated her conversation with the adult in response to Maria's challenging behaviors or appropriate requests. The third routine was designated *Assistance*. This routine was set up by providing Maria with an object that was likely to produce frustration and challenging behaviors (e.g., a toy box that was difficult to open, a puzzle that was difficult to manipulate, a musical toy that was difficult to operate). The sessions ended when Maria's mother responded to Maria's challenging behaviors or appropriate request.

### ***Functional Behavior Assessment***

Functional behavior assessments (FBA) were conducted to identify the functions of the participants' challenging behaviors. A modified form of the Functional Behavior Assessment Interview (O'Neill et al., 1997) was administered with Alexis's parents and with Maria's mother. In addition, direct observations were carried out in each of the identified routines using A-B-C data collection procedures. Researchers recorded data by describing the social context in which the challenging behavior occurred, the specific behavior that occurred, and the social consequence that followed the behavior (Carr et al., 1994). The interview data led to preliminary hypotheses that were confirmed by the direct observations.

The FBAs for each routine led to the following hypotheses for Alexis: (a) When Alexis's mother would transition to another activity that required leaving Alexis's proximity, Alexis would whine, pull her mother's hair, or spit at her mother to obtain a reoccurrence of her mother's proximal attention (Transition Routine); (b) When Alexis's mother would talk with another person, Alexis would whine, pull her mother's hair, or spit at her mother to request attention (Diverted Attention Routine); and (c) When Alexis's mother would attempt to read a book or engage in other solitary activity, Alexis would whine, pull her mother's hair, or spit at her mother to obtain attention (Personal Time Routine).

For Maria, the hypotheses derived from the FBA data were (a) When Maria's brother or mother would engage with a preferred object out of Maria's reach, Maria would hit, have a verbal outburst, throw an object, push her brother or mother, or kick a person or object to request the item, until she obtained the desired object from her mother (Sharing Routine); (b) When Maria's mother was talking with another person other than Maria, Maria would hit, have a verbal outburst, throw an object, push her brother or mother, or kick a person or object to request attention (Diverted Attention Routine); and (c) When Maria encountered difficulty operating a toy or other object, Maria would hit, have a verbal outburst, throw an object, push her brother or mother, or kick a person or object in order to request help (Assistance Routine).

### ***Baseline***

During baseline sessions, the mothers were instructed to engage in the routines as they would normally. The parents did not receive instructions regarding challenging behaviors and were guided only to follow the routines as they were described and observed in the functional assessments. Baseline conditions were conducted for a minimum of three sessions per routine.

All sessions throughout the experiment were video recorded with a digital camera. In addition to the mother and children, two researchers (second and third authors) were always present in the setting. These researchers served as observers (holding the camera) and as the instructors for the intervention phases of the study.

### ***Parent Training***

Following baseline and immediately before the fourth session for the first routine (Transition for Alexis and Sharing for Maria), the children's mothers were provided individualized instruction on the use of functional communication training (FCT) as a strategy for reducing their children's challenging behaviors. The instruction lasted 1 hour and was provided in the family's

home by the second and third authors. The instruction consisted of (a) an explanation regarding the reasons for replacing the challenging behaviors with more appropriate replacement behaviors; (b) a review of the functional assessment information including the child's target behaviors, replacement communication behaviors, and selected reinforcers; (c) modeling by the researchers on how to prompt the child to use the replacement behavior to prevent the challenging behavior from occurring; (d) reminders that developing replacement behaviors also involves withholding reinforcers for challenging behavior (cf. Durand, 1990); and (e) an opportunity for the mothers to ask questions regarding implementation of the FCT procedures. In addition, the mothers were given a skill teaching script specific to their child as a guide and reference for how to implement the specific FCT procedures. The scripts were used as prompts to help the mothers remember the specific strategies and were referred to before each intervention session.

### ***Intervention***

The first routines to be exposed to the intervention condition were Transition for Alexis and Sharing for Maria. The first intervention sessions were preceded by a brief review of the FCT strategies that had been covered in the 1-hour instruction. Review was accomplished by discussing the written script and answering any of the mother's questions. Following the review, the child's mother was asked to initiate the designated routine. According to the FCT strategies, the mother was then to anticipate the occurrence of the child's challenging behaviors by prompting the child to display the designated replacement behavior. Anticipation of the challenging behavior (for both dyads) was not difficult because the child was in close proximity to the mother, the child typically approached the mother in baseline with gestures clearly signaling the onset of challenging behaviors, and the mother was experienced with the early signs of challenging behavior. Prompts involved the mother modeling the desired

replacement behavior (e.g., say “play with me”), with the expectation that the child would imitate the model. No planned efforts were made to fade the prompts.

For Transition, the replacement behavior involved Alexis saying “play with me.” For Sharing, the designated replacement behavior was Maria saying “play.” In these two routines, the intended reinforcer was for the mother to engage in play interactions with the child (using the preferred toys). The sessions continued until the reinforcer was provided, following either the desired replacement behavior or extended challenging behavior.

For each child, intervention was implemented against the first baselines (routines) while the remaining two routines remained in baseline conditions. When change was evident in the level of challenging behaviors in the first routines, the second routine was exposed to intervention. The second routine for Alexis was Personal Time; for Maria, it was Diverted Attention. Individualized scripts were provided to the mothers, indicating the desired replacement behaviors (for Alexis, either “play with me” or “excuse me;” for Maria, “excuse me”) and reinforcers. For Alexis, the reinforcer was attention, including play interactions, unless Alexis indicated that she did not want to play but only wanted her mother’s attention. For Maria, the reinforcer was her mother’s focused attention.

When change was evident in the level of challenging behaviors in the second routines, intervention for the third routine was initiated. The third routine for Alexis was Diverted Attention, and for Maria it was Assistance. As before, individualized scripts were provided to the mothers. The desired replacement behavior for Alexis in this routine was “excuse me;” for Maria, the replacement behavior was “help me.” The reinforcer for Alexis was her mother’s attention, and for Maria it was the provision of assistance in accomplishing the difficult task. Although coaching was provided before the first few intervention sessions for each routine, no interaction occurred between the researchers and participants during the implementation of sessions.

### ***Experimental Design***

Two multiple baseline (across routines) designs were used to evaluate experimentally the effects of providing training and guidance for mothers to use FCT procedures to reduce the children’s challenging behaviors. One design was used to evaluate the effects with Ms. Taylor and Alexis, and one was used to evaluate the effects with Ms. Lopez and Maria. The designs were implemented with consideration of both experimental and clinical criteria. Efforts were made to implement a phase change only when data functions were stable in the other two (comparison) routines. Baselines were not extended for lengthy periods due to the practical urgency of resolving challenging behavior.

Data were collected for each routine over a period of 5 to 6 weeks, with sessions being conducted once or twice per week, depending upon the families’ schedules. Generally, one or two sessions per routine were conducted per day of data collection, but there were some instances of three or four sessions per day. Sessions were generally short in duration. Alexis’ Transition sessions averaged 50 secs (range of 10–180 secs), while the duration of her Personal Time and Diverted Attention sessions averaged 84 secs (range 20–260 secs) and 52 secs (range 10–90 secs), respectively. As indicated previously, sessions for Maria’s Sharing routine were always 120 secs. The duration of the other two routines were Diverted Attention, 71 secs (range 10–190 secs) and Assistance, 48 secs (range 10–150 secs). At no time was intervention ever introduced to more than one routine on a single day.

### ***Dependent Variables: Definitions and Data Collection***

Data were collected on two forms of child responding, challenging behaviors and use of functional communication replacement behavior. Data were also obtained on the mothers’ attending to challenging behavior and their use of prompts and reinforcers in accordance with the FCT strategies.

Challenging behavior for Alexis was defined as any instance of spitting, whining, or

pulling hair. *Spitting* was defined as Alexis ejecting saliva from her mouth aimed in the direction of her mother. *Whining* was defined as a distressed crying-like noise, and *pulling hair* was defined as Alexis touching, pulling, or smelling her Mother's hair. Maria's challenging behaviors were hitting, verbal outbursts, throwing, and pushing. *Hitting* occurred when Maria used an open hand to touch another person, herself, or an object with force. A *verbal outburst* was defined as Maria yelling with a high-pitched tone, crying, or saying, "No!" *Throwing* was defined as Maria releasing an object from her hand with force, and pushing was defined as Maria using any body part as a means to move another person out of the way.

The use of replacement behaviors was defined as Alexis or Maria *verbalizing the targeted new response to their mothers*. In Alexis's case, the new communicative responses were defined as Alexis saying, "Play with me" or "Excuse me" within the targeted routines. For Maria, the new communicative responses were defined as Maria saying "Play," "Excuse me," or "Help me" within the targeted routines.

Data were collected on the mothers' response to challenging behaviors and their use of FCT procedures. *Attention to challenging behavior* was scored if the child's mother interacted verbally or physically with the child while or immediately following the child's challenging behavior. *Prompting the replacement behavior* was scored when the mother verbally or physically prompted the child to use the designated replacement behavior before the occurrence of challenging behavior, and *Reinforce replacement behavior* was scored when the mother responded within 3 secs of the child's use of the replacement behavior with the intended reinforcer.

All data were obtained by scoring video recordings of the sessions. Two observers independently viewed and recorded whether or not the defined behaviors occurred within consecutive 10-sec intervals. The observers (second and third authors) were experienced in collecting and summarizing behavioral

data and had taken several graduate courses that included content on systematic data collection. Each child and adult variable (defined above) was represented on a score sheet and the observers indicated on the sheet whether or not there was an occurrence of challenging behavior, replacement behavior, mother attention to challenging behavior, prompting of the replacement behavior, or reinforcement of the replacement behavior.

### ***Severity Rating Scale***

Because sessions in this study were short in duration, we chose to supplement the interval data with a measure that would characterize each session in terms of the overall challenges that were evident to uninformed observers. A severity rating scale (SRS) was developed for this purpose. To complete the SRS, an observer watched an entire (video recorded) session and then recorded a score characterizing the routine as a 1) *Good Episode*, 2) *Acceptable Episode*, or 3) *Challenging Episode*. A Good Episode, given a score of 1, was recorded when the child acted appropriately and the mother was confronted with no behavior problems. An Acceptable Episode, given a score of 2, was defined as when the child displayed a minor challenge or two, but nothing that was difficult for the mother to handle or tolerate, and nothing that would be considered highly inappropriate or disturbing. A Challenging Episode, with a score of 3, was defined as the child having displayed noticeable behavior problem(s), such as loud verbal outbursts or aggression, that were considered disruptive enough to require intervention.

The SRS was completed for every session by two observers who had never worked directly with children with challenging behavior. All sessions in the experiment were shown to the observers in a random order, and the observers were not informed whether they were viewing baseline or intervention conditions.

### ***Reliability***

Interobserver agreement (IOA) was assessed for 100% of sessions for both participants.

Two observers viewed the sessions at the same time with a distance separating the observers sufficient to assure independence in data recording. No discussion occurred between the two observers during the viewing or recording of the data. Agreement was defined as an interval for which the two observers recorded identical scores (i.e., occurrence or non-occurrence). IOA was calculated by dividing the number of agreements, by the number of agreements plus disagreements, then multiplying by 100 for each session in both baseline and intervention phases. For Alexis, IOA on challenging behaviors during baseline in the first, second, and third routines averaged 98%, 100%, and 100%, respectively. For intervention, IOA of Alexis's challenging behaviors was 100% across all three routines. IOA for Maria's challenging behaviors during baseline in the first, second, and third routines averaged 99%, 100%, and 100%, respectively. For intervention, IOA of Maria's behaviors was 100% across all three routines. For use of the replacement behaviors, IOA was 100% for both participants across all sessions.

Interobserver agreement (IOA) for each of the mothers' behaviors exceeded 96% across all conditions. For Ms. Taylor's delivery of attention following challenging behavior, IOA averaged 99%; for Ms. Lopez, the average was 98.9%. For using prompts for the child to use the replacement behaviors, IOA was 100% for both mothers, and for the use of reinforcers following the child's replacement behaviors, IOA was 100% for Ms. Taylor and 99% for Ms. Lopez. The reason that IOA was so high for these responses is likely because they were conspicuous elements of brief sessions, and were probably difficult to overlook by any experienced observer.

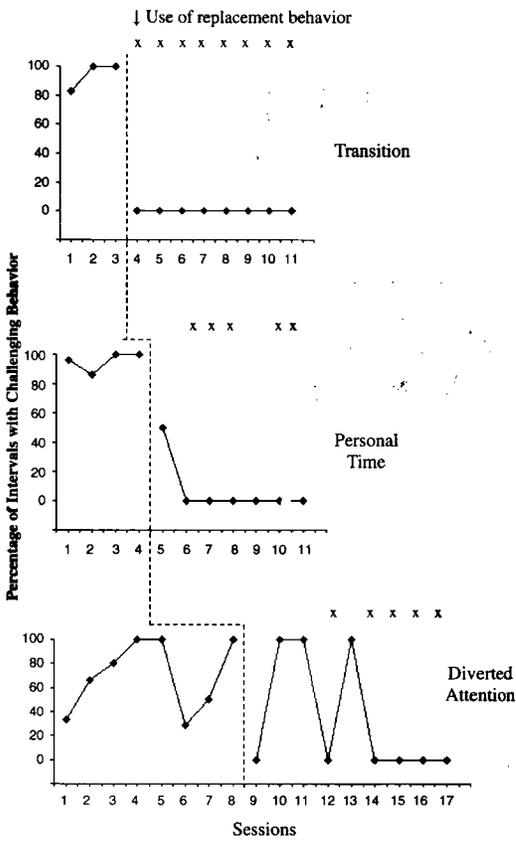
Interobserver agreement was also calculated for the SRS. Two observers scored each session on a 3-point scale. Agreements were defined as identical scores for a session. The interobserver agreement for Alexis' sessions was 92%, and for Maria's sessions IOA was 100%.

### ***Procedural Fidelity and Social Validation***

Procedural fidelity was assessed to determine if the training sessions were conducted as intended. A checklist was developed to record implementation of the five training steps, the content of the steps, and whether or not the prescribed procedures were followed during the intervention sessions. The training and intervention sessions were video recorded and reviewed for fidelity. All steps of the training and intervention phases were completed as described, and they were checked off accordingly.

Two aspects of social validity were assessed. First, a "goodness-of-fit" questionnaire was implemented to evaluate the extent to which the FCT procedures were compatible with pertinent variables related to the home environment and family context. A modification of the questionnaire developed by Albin and colleagues (1996) was administered to Ms. Taylor twice and to Ms. Lopez once during the intervention phases of the study. The modifications to the Albin questionnaire involved replacing the word "consultant" with "early interventionist," and the phrase "child with a disability" with "child with challenging behaviors." The questionnaire was given to Ms. Taylor at the initiation of intervention for the second routine and after intervention was underway for the third routine. For Ms. Lopez, the questionnaire was given during the beginning of intervention for the third routine.

The second form of social validation was intended to assess the acceptability of the outcomes from the perspective of a typical consumer. A mother of a child with challenging behaviors, who was not involved with the current research, was shown videos of three randomly selected sessions from baseline and three randomly selected sessions from intervention. For each session, the observer completed a survey with three items, which sought their perspectives about (a) frequency of functional communication use, (b) intensity of problem behaviors, and (c) frequency of problem behaviors (cf. Reeve & Carr, 2000). Each item was scored according to a 5-point scale, ranging from a score of *not*



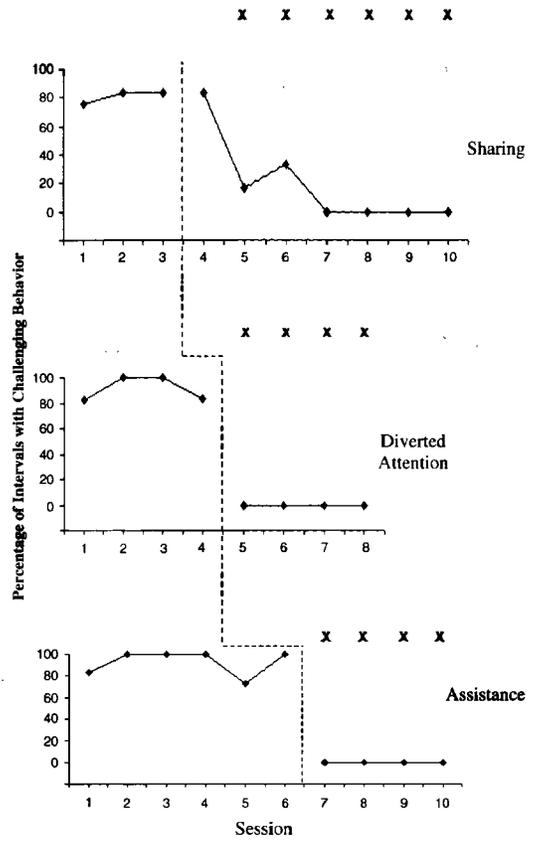
**Figure 1.** Multiple baseline across routines data for Alexis. Closed data points show percentage of intervals with challenging behavior and "X"s indicate sessions in which Alexis used her replacement behavior.

at all or not serious (1) to very frequently; or very seriously (5).

## RESULTS

The data depicting the children's challenging behaviors and use of the replacement behavior are shown in Figures 1 and 2 for Alexis and Maria, respectively. These figures show percentage of intervals with challenging behavior on the ordinate and sessions on the abscissa. In addition, the "X"s indicate whether the designated replacement behaviors were used by the children during the indicated sessions.

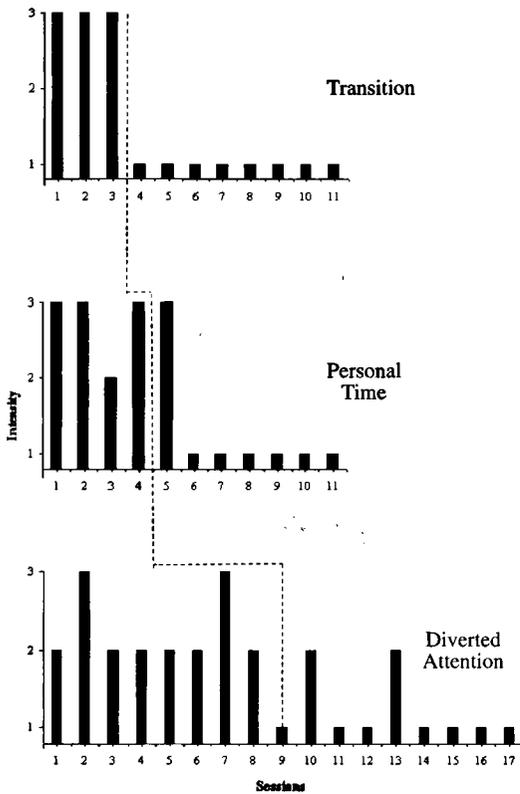
For both children, baseline phases for all routines were characterized by challenging



**Figure 2.** Multiple baseline across routines data for Maria. Closed data points show percentage of intervals with challenging behavior and "X"s indicate sessions in which Maria used her replacement behavior.

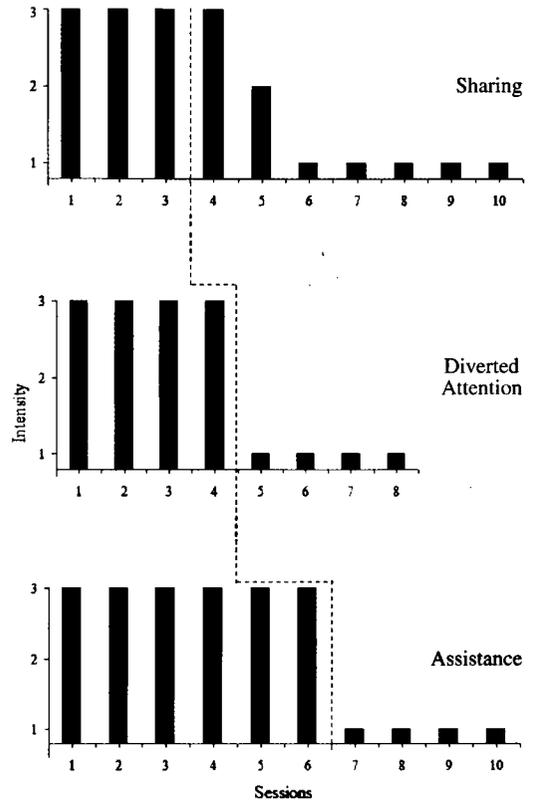
behavior occurring in a high percentage of intervals. The percent of intervals with challenging behavior was reduced substantially when the FCT intervention was introduced. For Alexis, the intervention produced immediate decreases in challenging behaviors in the first and second routines, while the effects were somewhat delayed in the third routine. For Maria, the intervention produced rapid reductions in all three routines, with the second and third routines seeing immediate elimination of challenging behaviors.

Figures 1 and 2 also show the use of the designated replacement behaviors by Alexis and Maria. These data indicate that the replacement behaviors were used regularly during the intervention phases of the experiment.



**Figure 3.**  
Severity rating scale data for Alexis. 3 = challenging session, 2 = acceptable session, 1 = good session (without difficulties).

The results from the severity rating scale are shown in Figures 3 and 4. These figures show the severity ratings, ranging from 1 to 3, on the ordinate, and sessions are shown on the abscissa. As in Figures 1 and 2, the alignment of experimental phases conforms to the multiple baseline across routines design. These data are similar to the data from the interval recording method (Figures 1 and 2) in that intervention was viewed as producing reductions in challenging behavior. These data add information about the severity of the children's behavior. For example, most baseline sessions were perceived by the observers as being extremely challenging, though the challenging behaviors in Alexis' third routine, Diverted Attention, were typically scored as less severe than in the other routines. When intervention was implemented, the majority of routines



**Figure 4.**  
Severity rating scale data for Maria. 3 = challenging session, 2 = acceptable session, 1 = good session (without difficulties).

were viewed as being *good episodes*, without challenging behaviors.

The data on the behaviors of Ms. Taylor and Ms. Lopez are shown in Table 1. This table shows the average percentage of intervals for each phase of the study during which the mothers provided attention to challenging behaviors (first data element in each cell), and the percentage of sessions in which the mothers prompted or reinforced use of the replacement behavior by the child (second and third data elements in each cell, respectively). These data show that baseline sessions included a high percentage of intervals in which the mothers provided attention (reinforcement) following challenging behaviors, whereas intervention sessions had few such intervals. The data also show that prompts and reinforcement of replacement behaviors did not occur in baseline, but

**Table 1**  
*Adult Behavior across Phases and Routines*

Routine	Attention Following Challenging Behavior % Intervals		Prompts for Replacement Behavior % Sessions		Reinforcement for Replacement Behavior % Sessions	
	Baseline	Intervention	Baseline	Intervention	Baseline	Intervention
			Ms. Taylor			
Transitions	<b>96.3</b>	<b>0</b>	0	25	0	100
Personal time	62	<b>2</b>	0	85.7	0	71.4
Diverted attention	47.5	<b>33.3</b>	0	88.9	0	55.6
			Ms. Lopez			
Sharing	<b>66.7</b>	<b>13.1</b>	0	<b>100</b>	0	85.7
Diverted attention	<b>46.8</b>	<b>0</b>	<b>0</b>	<b>100</b>	0	100
Assistance	84.7	0	0	75	0	100

were commonplace during the intervention phases.

The results of the goodness-of-fit questionnaire are shown in Table 2. This table shows the questions (adapted from Albin et al., 1996) and the responses by Ms. Taylor (on two occasions) and Ms. Lopez. The data indicate that both mothers described the procedures as being feasible and compatible with their families' routines and expectations. The data for items 9 and 16 also suggest that Ms. Taylor's impressions improved as she gained experience with the procedures.

The second form of social validation involved having a mother of a child who had challenging behaviors rate (on a 5-point scale) randomly selected video segments from baseline and intervention phases for both children. For the first question, use of functional communication, the three baseline sessions were scored 1.0 (*not at all*) for both children, whereas the average of the intervention sessions for both children was 4.6 (between *frequently* and *very frequently*). For the second question, intensity of challenging behavior, the average baseline scores were 3.3 for Alexis and 4.6 for Maria. The intervention scores for this question were 1.0 for both children. For the third question, frequency of challenging behavior, the average baseline score was 4 for Alexis and 5 for Maria. The intervention scores for this question were 1 for Alexis and 1.6 for Maria. The perspectives of this observer, a mother

who had experience with challenging behavior but was not involved in the research, conformed very closely to the data presented in Figures 1 and 2.

## DISCUSSION

The data collected in this research demonstrate (a) the effectiveness of FCT procedures in reducing the challenging behaviors of two toddlers in home routines; (b) the ability of two mothers to use the FCT procedures with fidelity; (c) the effects of the procedures were perceived as evident by a typical consumer (parent); and (d) the procedures were considered to be appropriate to the home context by the two mothers who participated in the study. One important contribution of the results is that they add to a small but growing data base on the use of FCT to resolve the challenging behaviors of toddlers (Andorfer et al., 1994; Winborn et al., 2002) and they do so by documenting not only changes in children's behavior, but also by documenting the use of the procedures by the participating mothers (cf. Derby et al., 1997; Wacker et al., 1998).

Two other features of the current study might be seen as contributions. First, rating scales were used to assess the validity of the recorded changes in child behavior. This was important because the direct observation metric (percent of intervals with challenging behavior) cannot detect intensity or the

**Table 2**  
*Contextual Fit Questionnaire Responses*

Question	Ms. Taylor (Time 1)	Ms. Taylor (Time 2)	Ms. Lopez
1. Do you believe the support team understands the needs your child has for support across the hours of each day and in each important setting in which he or she participates?	4	4	5
2. Do you believe the plan takes into account your understanding of your child (e.g., reasons for problem behavior, strategies that promote positive behavior, child preferences)?	4	4	5
3. Does the plan really address your highest priority goals for your child and family?	5	5	5
4. Do you understand what you are anticipated to do as a part of this plan?	4	4	5
5. Are you comfortable with what you are expected to do?	4	4	5
6. Do you understand what others (early interventionist, other family members, etc.) are expected to do as a part of this plan?	4	4	5
7. Are you comfortable with what others are expected to do?	5	4	5
8. Does the plan recognize and support your needs as a mother or father?	4	5	5
9. Does the plan recognize and support the needs of other family members living at home (e.g., other children, grandparents)?	2	4	4
10. Overall, how does the support plan fit with the daily routines of your family (e.g. meals, shopping, social events, bedtime)?	4	4	5
11. Overall, how well does the plan fit with your values and beliefs about raising your child with problem behaviors and creating a meaningful family life together?	4	5	5
12. Does the plan include successful strategies you have used during family routines in the home or community?	5	5	5
13. Will the plan, in the long run, disrupt family routines in the home or community to a point that stress and adversity will be created?	1	1	1
14. Does the plan recognize and build on your family's strengths?	3	4	5
15. Does the plan build and recognize positive contributions your child has made to the family?	3	4	5
16. All things considered, how difficult will it be for you to use this support plan (i.e., time involved, coordination, tasks)?	4	2	1
17. Do you believe the support plan will be effective?	5	4	5
18. If the plan is effective, do you believe you can keep using the support strategies for a long time (e.g. over 1 year) even though other members of the support team will not be available as much (e.g., little to no contact with the early interventionist, consultative assistance by telephone)?	5	4	5

*Note.* Adapted from Albin et al. (1996); response options ranged from 1 (*not at all*) to 5 (*very frequently*).

overall effect of challenging behavior on a home routine. A severity rating scale, therefore, was devised and uninformed observers used the scale to evaluate each session as being challenging, acceptable, or good. Results from the severity rating scale provided encouraging confirmation that the direct observation data were valid. In addi-

tion, a typical consumer (also uninformed with respect to the research questions or procedures) completed a different social validation scale for randomly selected sessions in baseline and intervention for each child. These data added evidence regarding the significance of the changes in child behavior.

Data also were obtained on goodness-of-fit of the intervention. These data were collected to help gauge the extent to which the procedures were deemed feasible and comfortable by the family member responsible for their use. The greater the contextual fit, the greater the likelihood the procedures would be used over time (Albin et al., 1996; Bailey et al., 1990). The data in Table 2 show that the procedures possessed good fit and suggest that Ms. Taylor became more comfortable with the procedures as she gained experience. While this study was not designed to analyze the relation between contextual fit and sustained use of FCT, the information is encouraging and suggests future investigations that could be undertaken to enhance maintenance and tailor intervention protocols to the inclinations of the intervention providers.

From a clinical perspective, a number of important issues might be considered. First, mothers were able to use the procedures independently. The procedures of the study provided for a 1-hour training prior to intervention on the first routine, coaching before each session, and written scripts detailing the use of prompts and reinforcement in intervention. The fact that no interaction between the researchers and mothers occurred during sessions indicates that some level of independence was apparent from the beginning of intervention. The pre-session coaching, which included the researchers providing reminders and rehearsing the scripts with the mothers, was considered necessary for several sessions beyond the initiation of intervention. By the end of the study, however, coaching was not required for any routine, giving evidence that the mothers no longer required explicit instruction or guidance.

Another important clinical issue is that FCT, as defined in this study, is not likely to be a sufficient intervention plan to resolve challenging behaviors completely or establish optimal parent-child interactions and routines. As several authors have noted, effective intervention for challenging behavior ordinarily requires multiple components and a broad consideration of contextual (e.g., familial) variables (Carr et al., 1994; Lucy-

shyn, Dunlap, & Albin, 2002). In the current study, challenging behaviors were reduced considerably in all routines; however, routines were not transformed to optimal interactions. Consider, for example, the first routine for Alexis. Alexis learned to solicit her mother's presence and attention by saying, "play with me" when Ms. Taylor was preparing to depart for another activity. "Play with me" was functionally equivalent to Alexis' challenging behavior (in this routine) and, therefore, served as an effective replacement, as intended in the FCT procedure. Although this was considered a success, it did not resolve fully the problem because there were times when Ms. Taylor was unable to return to the play activity (e.g., when she needed to answer a door bell or complete an urgent chore). Therefore, following the completion of the final intervention session for the Transition routine (session 11), and not as part of the study, the researchers helped Ms. Taylor to implement a "safety signal" procedure (DePaepe, Reichle, & O'Neill, 1993; Sigafoos & Reichle, 1991). In circumstances when Ms. Taylor could not participate in play indefinitely, she would respond, "OK, Alexis, we can play for 3 more minutes, and then I have to go (finish the dishes)." Ms. Taylor would then set a large timer for 3 mins, and place it conspicuously in the play area, referring to it during her play with Alexis. When the 3 mins passed, Ms. Taylor would say, "The 3 minutes is over, and now I am done playing. You can stay here and play alone or come with me (to do the dishes)." This strategy was effective with Alexis. Other approaches, however, might be more effective with other children or in other routines. For instance, a child could be taught directly to engage in more advanced solitary play routines, or to tolerate increasing delays to gratification (cf. Dunlap, Plienis, & Williams, 1987). FCT is a procedure that needs to be placed in a larger context of behavior support to be effective enduringly.

This study offers early intervention personnel data on the effective use of a relatively

simple strategy implemented by primary caregivers in natural routines. An important feature of the study is the application of the intervention in a manner that mirrors the arrangements of typical early intervention services (i.e., consultation to parent, natural environment). Although additional replications of the study are warranted, and questions of generalization and maintenance are important for future research, these data offer early intervention practitioners preliminary support for the use of FCT as a strategy for families and their toddlers with challenging behavior.

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## Aggression? Using Positive Behavior Support to Address Challenging Behavior

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*Cooper is a bright-eyed 2½-year-old boy, who is curious and full of energy. He is receiving early intervention services (through Infant Toddler/Part C of IDEA) due to communication delays and behavioral concerns and attends a community preschool program for part of the day. His problem behaviors often begin in the morning during the play period that occurs as children are arriving. He wanders aimlessly in the classroom and then frequently initiates an aggressive interaction with a peer. The aggressive behavior is quite intense, taking the form of biting, hitting, tackling, pinching, and head-butting and continues until the teacher separates Cooper from the other child or the child runs away. On quite a few occasions, Cooper will chase the child and continue the aggression. Cooper's aggressive behavior threatens the safety of the other children, causes great concern among the parents of children who have been attacked by Cooper, and causes the staff of the program to question their ability to continue to enroll Cooper. The teachers have tried a number of strategies to reduce the aggressive behavior without much success. The preschool director shares, "He has stolen my heart, we all love him here." But she also acknowledges that the current method for addressing Cooper's aggressive behavior in the classroom is not working, and unless his aggressive behavior can be controlled, she will be forced to ask his parents to withdraw him from the preschool.*

Recent national newspaper headlines have noted the distressing news that young children are being expelled from state-funded preschool programs at rates that exceed public schools that enroll children in grades kindergarten through 12 (e.g., *Washington Post* [Dobbs, 2005], *USA Today*

[della Cava, 2005], *New York Times* [Lewin, 2005]). These data confirm what many early educators and program directors already know—many young children come to preschool with aggression that is non-responsive to traditional classroom guidance procedures and poses a safety risk to other children. The sad outcome for many children, their families, and programs is that children are asked to leave.

Preschool aggression is not a rare phenomenon. Many young children use aggression to communicate their needs and wants and may use hitting, biting, and throwing objects as a mechanism to gain or escape attention or an object/activity (Cole & Dodge, 1998). In most cases, early educators are able to guide the child to use more appropriate behavior and the incidents of aggression quickly diminish. However, some children display aggressive behaviors at levels—both in number and intensity—that are not responsive to commonly practiced child guidance procedures.

Based on a review of prevalence studies, Campbell (1995) estimated that 10%–15% of young children have mild to moderate behavior problems. Early-appearing aggressive behavior does and should cause early educators great concern. Research indicates that early-appearing aggressive behavior has a good likelihood of persisting during the school years and continuing into adolescence (Campbell, 1995; Egeland, Kalkoske, Gottesman, & Erickson, 1990; Pierce, Ewing, & Campbell, 1999). Problem behavior that occurs during preschool is the single best predictor of adolescent delinquency, gang membership, and incarceration (Dishion, French, & Patterson, 1995; Reid, 1993).

Positive Behavior Support (PBS) offers a promising intervention approach for addressing aggressive behavior (Fox, Dunlap, & Cushing, 2002; Fox, Dunlap, & Powell, 2002). PBS is based on the assumption that children engage in challenging behavior to gain or escape access to attention, objects, or activities (O'Neill et al., 1997). Thus, problem behavior has a function or purpose. The general intervention approach used in PBS is to identify the function of the behavior and then teach the child new skills to replace the problem behavior. The use of PBS is supported by a growing body of literature that provides evidence of the effectiveness of this approach with children and adults of all ages and varied disabilities or delays (Carr et al., 1999; Conroy, Dunlap, Clarke, & Alter, 2005).

This article describes the use of PBS by early educators to develop and implement effective behavior support plans for young children with aggression. We offer the story of Cooper as an illustration of how this process works and the outcomes that may be experienced.

## The Process for Implementing Positive Behavior Support

Table 1 presents the four steps involved in the process of developing, implementing, and evaluating an effective positive behavior support plan for young children who are engaging in frequent acts of aggression. In the following sections, each step will be described.

### Convening a Team

The PBS process begins by convening a team to address the needs of an individual child. The team members should include the classroom teacher, the child's family, and a person who is familiar with PBS that can guide the process (e.g., behavior consultant, mental health consultant, or consulting early childhood special educator). Additional team members may include classroom teaching assistants, therapists, and program administrators. The team gathers to discuss the strengths of the child, their concerns about the behavior the child is displaying, and their goals for the PBS process and child outcomes. The PBS facilitator (i.e., person who will guide the group) describes the steps of the process and enlists the team in deciding how to begin the process.

### Conducting a Functional Assessment

The first activity for the team is to conduct the functional assessment. The functional assessment is a process in which a portfolio of observations

Table 1  
Process of Positive Behavior Support

Step 1: Convening a team to address needs of individual child
Step 2: Functional assessment
a) Gathering information
b) Developing hypotheses
Step 3: Brainstorm the behavior support plan
Step 4: Implementation, monitor and evaluate the behavior support plan

*Positive Behavior Support (PBS) offers a promising intervention approach for addressing aggressive behavior.*

and information is gathered and then interpreted (Kern, O'Neill, & Starosta, 2005). Thus, the second step in the process of developing a positive behavior support plan requires the completion of two activities by the team: gathering information and developing a hypothesis (see Table 1). The goal of the functional assessment process is to come to an understanding about how environmental events govern problem behavior. By gathering information on the relationships of contextual triggers and maintaining consequences, the team can begin to draw conclusions about the purpose or function of problem behavior.

The gathering of information phase of the functional assessment portfolio includes many different sources of information. A review of the child's records is performed to gain an understanding of the child's social history, previous placements, developmental assessments, and medical concerns. Second, observations of the child within daily interactions are conducted. These observations occur within activities and situations where problem behavior is likely to occur and not occur. The observations are typically conducted by all of the members of the team. The members of the child's family and teacher may offer observations in the form of notes on incidents of problem behavior that include information on the time of day, situation (setting or interaction), antecedents (what occurred before), and maintaining consequences (what occurred after) that surrounded each incident of aggression.

Finally, most teams use an interview to gather the information that individuals have about the problem behavior, triggers of behavior incidents, consequences that may maintain behavior, and the possible functions (Kern et al., 2005; O'Neill et al., 1997). In conducting the interview, the team first decides who should be able to provide relevant information and then what question to ask. For example, the early educator may provide information on a child's interactions with peers while the parent has information on health concerns or sleeping patterns. An interview is recommended as it provides a relatively efficient way to gather the knowledge of individual team members in a systematic manner.

In addition to reviewing records, direct observation, and interviews, the facilitator of the PBS process may develop other mechanisms for collecting data. For example, if the team suspects that sleep or medication affects problem behavior, then a form for systematically collecting that information in a manner that reveals relationships may be used. That is, if the team suspects that lack of sleep is affecting the child's dis-

play of aggression, they would develop a simple data collection system that would provide information on the frequency of aggression and the amount of sleep the child had the previous day.

Once all the information is gathered, the team moves on to developing hypothesis statements about the function of the problem behavior by coming together to synthesize the data (Donnellan, Miranda, Messaros, & Fassbender, 1984; Nielsen, Olive, Donovan, & McEvoy, 1998). The data are reviewed to see if there are patterns between triggers of problem behavior, the consequences that follow problem behavior, and the child's response. These data are interpreted through the framework of determining what the child seems to be communicating through the use of problem behavior. The hypotheses typically fall into two categories: the child is trying to obtain something (e.g., activities, sensory stimulation, attention, objects, help) or escape something (e.g., activities, sensory stimulation, attention, objects, help).

Next we describe the functional assessment process that was used to gain an understanding of Cooper's problem behavior.

Once the team was established, a functional assessment was initiated and conducted over a three-week period. The team consisted of Cooper's parents, his two preschool teachers, the preschool director, his speech therapist, and the behavioral consultant. Information was gathered from interviews, direct observations, and archival records, including pediatric and psychological assessments. This information was then synthesized to assist the team in developing hypotheses about the function of Cooper's challenging behavior.

The teaching staff reported that aggressive behavior would occur frequently throughout the school day with the exception of snack and lunch routines. His teachers shared their impressions about Cooper's aggressive behavior. They believed that Cooper appeared to not understand what the expectations were for most of his daily school routines. Staff also reported that if a child was in close proximity and crying loudly, Cooper would approach the child, and immediately attempt to hit, bite, or pinch that child.

All team members expressed concern about Cooper's lack of consistent verbal language, and stated that his deficits in verbal communication may have led Cooper to resort to other forms of interaction, including pointing, whining, crying, or aggression in order to get his needs met. There was concern that Cooper's verbal and receptive deficits may have impacted his ability to learn new skills and delay was seen as being related to his level of aggressive behavior particularly when approaching peers to interact or communicate his

needs. The reports on the Part C evaluation, as well as information obtained from his pediatrician and speech therapist, also identified his delayed receptive processing as interfering with Cooper's ability to understand and comprehend verbal instructions and interactions. The team also hypothesized that there was a connection between Cooper's aggressive behavior and the occurrence of specific setting events (i.e., sickness, lack of sleep, exposure to loud noises, or large groups of people in close proximity).

The interviews and assessments confirmed the information gleaned during observations by the behavioral consultant. The team examined the multiple sources of information gathered from the functional assessment and concluded that Cooper's aggressive behavior was more likely to occur during the following circumstances: transitions, high demand activities, changes in routine, nondirected and nonpreferred activities, and tasks associated with unclear expectations. They also identified specific environmental events that served as triggers for Cooper to exhibit aggressive behavior.

The information gathered allowed the team to determine that there were multiple functions maintaining Cooper's aggressive behavior. The team hypothesized Cooper engaged in challenging behavior in an attempt to escape from school activities: (1) that were considered unpredictable or had unclear expectations; (2) that Cooper considered nonpreferred (difficult, boring); (3) that were associated with high levels of noise or people; and (4) in an attempt to gain attention from peer or teacher.

The functional assessment process can be the most difficult and time-consuming step of the PBS process. It is critically important that this step is not overlooked or rushed. The behavior support plan that is developed for the child should be directly linked to the hypothesis statements. If those statements are not developed with integrity to the process, the plan is likely to fail.

### **Brainstorm the Behavior Support Plan**

Once the hypotheses are determined, the team can brainstorm the behavior support plan. It is very important that all members of the team participate in this process, as they are the ones who will be implementing the plan. The behavior support plan should always include four parts: (1) behavior hypothesis statements, (2) specification of prevention strategies, (3) identification of replacement skills, and (4) delineation of new responses to behavior (Bambara & Kerr, 2005). We have already

described how a behavior hypothesis statement is developed and provided examples of the statements that were developed for Cooper. The second part of the behavior support plan is the specification of prevention strategies that link directly to the identified triggers for problem behavior. Prevention strategies include modifications in interactions, instructions, environment, activities, materials, and other relevant stimuli that soften the triggers for problem behavior (Kern & Clarke, 2005). These strategies reduce the likelihood that the child would use problem behavior to get his or her needs met.

The next part of the behavior support plan is one of the most important parts, the instruction of replacement skills (Halle, Bambara, & Reichle, 2005). If the team neglects to teach the child new forms of communication that can replace problem behavior, then it is likely that the child will continue to use the problem behavior to communicate wants and needs (Halle et al., 2005). The more quickly the child learns to use these replacement skills, the more quickly the problem behavior will be reduced. Thus, the team needs to ensure that effective and efficient methods of instruction are used to ensure the learning of the targeted replacement skills.

Replacement skills should be taught to the child throughout the day during the times the child is not having the problem, in addition to opportunities for instruction that occur when the child is redirected. The goal of instruction should be to embed as many trials or opportunities for instruction as possible within the daily routine. Teaching should occur during the time the child is not having problem behavior, as those are times when the child is most receptive to receiving information and guidance from the teacher or peers. Teachers should look for opportunities to embed instruction into routines where the replacement skill may be meaningfully used. For example, if the replacement skill for a child is to tap a peer on the shoulder to initiate peer interaction, the teacher may set up those opportunities throughout the child's day. The child may be prompted to use the new skill during circle time, when passing out materials, when choosing a partner for an art activity, and for requesting a turn with a toy.

In addition to making arrangements to teach the skill throughout the day, the team should determine the method of systematic instruction (or prompting hierarchy) that will be used to teach the skill. There are numerous research-based instructional methods that can be used to ensure that

Figure 2  
Cooper's Behavior Support Plan

Prevention Strategies	Replacement Skills	Adult Responses
Visual cues/phone schedule/stop signs	Teach how to initiate/let-terminate interactions	Clear instructions
Social stories	Teach how to initiate appropriate physical affection	Redirect and ignore
First/then boards	Teach how to appropriately ask for "break" or "help"	Specific praise
Choice	Teach how to respond to environmental sensitivities	Provide choice
Preferred items	Teach how to make and express choice	Materials ready
Manipulatives		Consistent verbal cues
Add quiet area		"All done," countdowns
Add breaks		Model
Peer buddy		Encourage verbal interactions
Remove distractions		Monitor and anticipate difficult activities

the skill is efficiently taught (Bailey & Wolery, 1992; Grisham-Brown, Hemmeter, & Prevti-Frontczak, 2005). When instruction is approached haphazardly, many more trials of instruction are needed for skill acquisition and fluency.

Finally, the plan includes new responses to problem behavior and responses to the behaviors that the team wants to be encouraged by adults and peers in the child's natural environments. Problem behavior persists because the child ultimately accesses a reinforcer or gets his needs met. The team must develop a plan to ensure that access to a reinforcer (or maintaining consequence) does not occur while making sure to use strategies that will strengthen the development of desired behaviors and skills. For example, if the child currently uses tantrums to get an adult to come over and help with an object that is difficult to manipulate, then the adult needs to ensure that help is not delivered contingent on prob-

tem behavior. An alternate strategy may be to prompt the child to request help (i.e., say "help", gesture "help") before providing help.

Returning to Cooper's team's work, we see the process of developing the support plan and how it is linked to the behavioral hypotheses.

Cooper's support plan includes strategies that are directly related to the escape and attention functions maintaining his aggressive behavior. Table 2 provides a list of prevention strategies identified by Cooper's team that will be used in all routines to help Cooper understand the expectations of the routine, increase the predictability of activities, and alter the desirability of activities. For example, visual cues are provided to increase the level of predictability for each of the routines. That is, representational photos are paired with instructions to help Cooper understand expectations of routines and the sequence of activities. Photos are also placed in strategic areas around the classroom to help cue him about expectations (e.g., where to sit, appropriate behavior). First then photo boards are also incorporated into daily routines that reflect the sequence of Cooper's day. The photo boards assist with predictability and provide visual prompts for Cooper to increase engagement in nonpreferred activities.

The team also identifies several ways to incorporate choice opportunities, Cooper's preferences, and high-interest materials into his daily routines and activities. Providing choices of activities, preferred items, and interesting materials to Cooper helps change the way he responds to the request for engagement in activities that were previously associated with displays of problem behavior. In addition, the use of choice, preference, and high-interest materials will assist in keeping Cooper engaged in activities for longer periods of time and reduce the display of challenging behavior, allowing his teachers to teach skills and provide positive adult attention. Providing Cooper with choices and preferred objects/activities also helps Cooper cope with events that may have triggered problem behavior in the past. For example, once the plan was in place, Cooper is no longer distracted or aggressive when another child is crying loudly in the classroom. Now, Cooper looks up at his peer momentarily, and then redirects his attention back to a preferred activity (car picture book). Another prevention strategy identified involves the recruitment of a peer buddy to help Cooper play and learn appropriate behavior. The peer buddy and Cooper are provided with high interest toys that will foster the engagement in play. The high-interest items that are shared between the boys provided a way for Cooper to initiate and increase positive social interactions.

A plan is also in place to teach Cooper replacement skills to provide him with an appropriate alternative to aggression. The five priority

skills for Cooper to be taught and learn are presented in Table 2. The teaching plan includes having the teachers stop the use of the consequence-based procedure of the "sit-out chair" and concentrating their efforts on identifying naturally occurring conditions to teach Cooper how to respond in a more appropriate manner in order to convey his needs. His team recognizes the importance of teaching replacement skills throughout the day. These replacement skills provide Cooper with alternate ways to interact and respond to others, as well as terminate activities that are difficult, or overwhelming due to environmental sensitivities. For all activities, Cooper will be taught how to initiate appropriately, either verbally or with gestures, to get his needs met. Table 3 provides examples of verbal and nonverbal skills that have been identified by Cooper's team.

The teachers plan to use a variety of instructional strategies for teaching the replacement skills. They plan to attend to specific situations and immediately verbally state what he is attempting to obtain or escape from prior to the occurrence of challenging behavior. This interpretive statement will then be followed by a verbal cue or prompt of the replacement behavior Cooper is expected to display. The teacher will also model the replacement skill, providing Cooper with a clear example of how to display replacement behavior (i.e., "Cooper, you want to play with the cars Harry has. Say, 'I want to share please'").

Table 3  
Replacement Skills Taught to Cooper

Skills Taught to Replace Aggressive Behavior	Attention	Escape
Verbal	"I want to share" "I need help"	"Go away" "I want a break"
Nonverbal	"I want a hug/kiss" Gesture with toy to share	"All done" Gesture with STOP sign to end routine/request break
Nonverbal	Gesture for hug/kiss	Point to picture or leave area

Replacement behaviors taught to Cooper will include social interactions, such as how to initiate sharing, asking for a hug, and how to terminate an interaction appropriately. His teachers will teach him the skill of not only how to ask for a hug from other children, but also how to deliver a hug without too much force, or for too long a period of time. Cooper will also be taught how to pat a friend on the arm and pair with a verbal request of "I want a hug please", and then wait for the other child to open his/her arms to receive a hug. Cooper will then hug the peer and stop with a 3-2-1 countdown. This also requires teaching the other children to assist and demonstrate that they are ready to be hugged by opening their arms to Cooper. He will also be taught the skill of asking to play with another's toy. The replacement skills will also allow Cooper to learn how to initiate a break or exit an activity. A laminated 3 x 3 inch representational "stop sign" will be provided to Cooper, and he will be taught to show the stop sign to a teacher and say "All done" when he wants a break or to leave an activity. Once Cooper shows the stop sign or says, "All done", he immediately will be given the opportunity to leave, start another activity, or go to the quiet area in the back of room. The "stop sign" is also effective as a visual redirective prompt when Cooper is having difficulty stopping an activity, such as leaving the bathroom after washing his hands.

Cooper will also be taught a verbal skill to assist with his sensitivities to environmental stimulus by having him learn to request that others leave his immediate area, and communicate that he wants to be alone. For example, if another child is in close proximity and the teacher observes that Cooper is becoming upset, the teacher will state what Cooper wants (e.g., "Cooper you want to be alone, say 'Go away please'"). The other students in the class will also be taught by the teachers to back away from Cooper when he verbalizes this request. In the rare circumstances when this isn't physically possible, he will be given the option to leave and sit in the quiet area. These new skills are designed to empower Cooper with a new and effective way to communicate and get his needs met.

Cooper's team also identified a number of specific ways that they will change their behaviors directed to Cooper. The third column of Table 2 summarizes these. For example, the teachers will modify their delivery of instructions by presenting clear, concise requests to accommodate Cooper's current verbal processing and receptive issues (e.g., "Cooper sit, sit in chair"). Increased specific praise will also be incorporated by the teachers, which will not only increase the positive attention that he receives but also provide feedback about the appropriate behavior exhibited. To reduce distractions and help with predictability, teachers prepare all materials prior to the start of a new activity. Preparing materials allows the teaching staff to have quick

access to activity items, and provides a clear and consistent pace of routines, which may help to reduce the aversiveness of various activities for Cooper as well. Teachers will also use a redirect and ignore approach when Cooper becomes aggressive, to reduce the possibility of teachers providing unintended attention to Cooper.

In reviewing Cooper's behavior support plan as presented, the reader can see that each of the four parts have been addressed (i.e., behavior hypothesis statements; specification of prevention strategies; identification of replacement skills; and delineation of new responses to behavior).

### Implementation, Monitoring, and Evaluation of the Behavior Support Plan

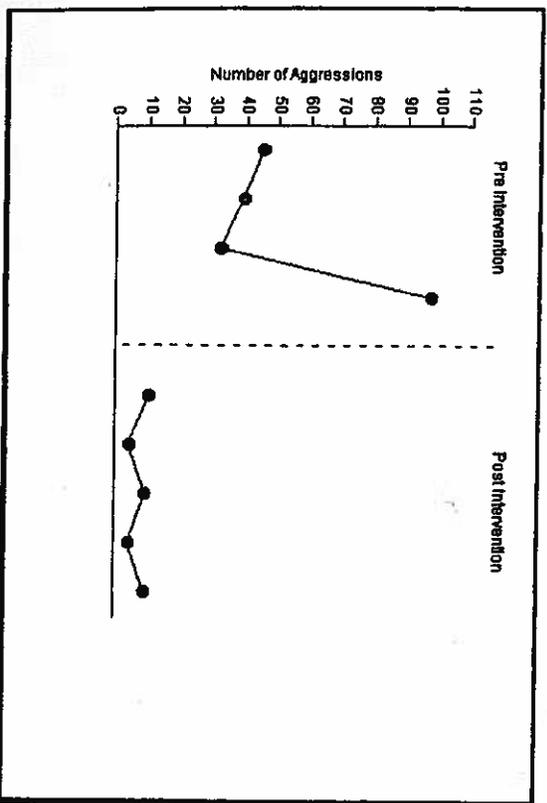
Once the behavior support plan is developed, the team begins implementation of the plan within daily routines and play. This often involves restructuring activities, providing environmental supports, and changing how adults interact with the child. It is important to develop a written plan in plain language so that all adults understand the actions they need to implement. Often, the behavior consultant will assist the classroom team in the first days of implementation until all members of the team are comfortable with the new procedures.

An outcome monitoring form should be used with plan implementation. It will be important for the team to collect objective data on whether the plan is working and the child is meeting his goals (Janney & Snell, 2000). Behavior support teams may find that the use of simple ratings scales or checklists that are individually designed to track one or two of the desired outcomes will be the easiest form of data collection to implement in a busy classroom. For example, a teacher may count the number of times the child has a tantrum during circle time and look for those incidents to decrease paired with noting the amount of time the child is actively engaged in circle time activities. In the home setting, a family may be provided with a rating scale to summarize the child's affective state (e.g., 1= smiling and cooperative, 2= some problem behaviors, or 3= crying and resistive) during a target routine.

### Summary

Positive Behavior Support provides an effective approach for developing individualized behavior support plans that result in important outcomes for children, their teachers, and families. While the process may be complex and require the guidance of a behavior consultant who is knowledgeable about the process, there is a growing body of information and

**Figure 1**  
**Total Number of Aggressions Occurring Daily During First 15 Minutes of Targeted Routines**



materials specific to early childhood applications of this model (see [www.cfsef.uiuc.edu](http://www.cfsef.uiuc.edu) or [www.challengingbehavior.org](http://www.challengingbehavior.org) for more information). This approach was pivotal in the support of Cooper and his successful inclusion in preschool. In closing, we describe the outcomes that Cooper and his team experienced.

*The intervention strategies and replacement skills incorporated into Cooper's daily preschool activities substantially improved his behavioral repertoire and reduced his aggressive behavior. In an effort to examine change in behavior over time, a frequency count of the number of aggressive acts Cooper displayed across five days was recorded. Because his rates of aggressions were so high, the teachers decided to count the number of aggressions that occurred within the first 15 minutes of targeted activities. Figure 1 shows the total number of aggressions that occurred during free play, circle, centers, art, and outdoor play. Once intervention was implemented, the number was compared with the five days following intervention implementation and the reduction was substantial. In addition to the reduction in aggression following intervention, Cooper's teachers and parents noticed that he had become much happier in the classroom and at home. Team members reported that Cooper was smiling, jumping, clapping, and dancing in his classroom and at home much more fol-*

*lowing the introduction of the behavior support plan. Following the implementation of the plan, Cooper was spontaneously using the verbal requests, gestures, and physical affection skills taught not only during the school day, but also at his home. His new replacement skills enabled Cooper to request or terminate interaction and/or activities either verbally or nonverbally, in a manner that was easily interpreted by other children in the classroom. His parents also noted that Cooper started verbalizing much more with his family, requesting preferred toys, choosing and expressing his preference for snack, as well as asking to go outside, where he previously ran out of his house without permission. There was also a notable change in his relationships with his classmates, and the way the other children in the classroom interacted and responded to Cooper.*

*As a result of this behavior reduction and the ongoing effectiveness of the comprehensive support plan, it was decided by the team that Cooper should be allowed to continue his attendance at preschool and the threat of expulsion was removed. In addition, his parents and teachers felt he was now capable of attending the preschool for the entire school day. With the ongoing implementation of the behavior support plan in all daily routines, Cooper adjusted well to the change in the length of his preschool day. His teachers reported that following his full-time attendance over four weeks, Cooper was no longer exhibiting aggressive behavior. His teachers were pleased to report that Cooper was doing well in preschool and that he often would assume roles as a "leader and teacher's helper."*

**Notes**

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## YOU GOT TO HAVE FRIENDS

### Promoting Friendships for Preschool Children

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Cesar is one of the more popular children in his preschool class. He often joins his classmates in creating unusual and fun imaginary games. He readily shares toys and materials, often proposing a trade that works for all. Cesar laughs a lot; he is enthusiastic, and he almost always says, "Yes" when a classmate asks him to play or has a different play idea. Cesar also says nice things to his classmates and acknowledges their accomplishments. When it is time to choose a friend for an activity Cesar is always in great demand.

Chloe is one of Cesar's classmates. She spends most of her time in preschool staying close to her teacher, occasionally hovering around a group of children playing together. Chloe doesn't say much to her classmates and they in turn seldom speak to her. Chloe, in fact, has lots of skills. She knows what to do with toys and utensils; she knows the usual "scripts" that emerge in imaginary play. Chloe, however, seldom gets chosen by another classmate to participate together. In her world of social isolation she occasionally appears sad to the outside observer.

The behavioral contrast between Cesar and Chloe is profound. Cesar has classmates who advocate for him, encourage him, and include him. Chloe, on the other hand, is like an invisible member of the class. No one asks, "Where's Chloe," no one says, "We need Chloe," no one says, "Come on Chloe!" The differing social worlds experienced by Chloe and Cesar not only predict very divergent developmental trajectories in preschool, but they set the occasion for lifelong consequences. Based upon longitudinal and retrospective research (Hartup & Moore, 1990; Howes, 1990; Kupersmidt, Cole, & Dodge, 1990), it is clear that Cesar is on a developmental path toward self-confidence, continual friendships, school success, and healthy adult adjustment. Chloe is sadly on a developmental path toward deepening isolation, loneliness, and adult mental health

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# 8

## **A Programwide Model for Supporting Social Emotional Development and Addressing Challenging Behavior in Early Childhood Settings**

**LISE FOX and MARY LOUISE HEMMETER**

In 2005, popular press headlines reported that expulsion rates for preschool children due to behavioral concerns exceeded those of elementary and secondary school students. This report put a national spotlight on an issue that has been quietly hidden within private and public preschool programs; challenging behavior is an issue for many children in the early childhood years. The national survey indicated that expulsion rates were higher for older children, boys, and African American children and were higher within private and faith-based settings (Gilliam, 2005). Programs that had access to mental health or behavioral consultation were less likely to expel children than programs without access to those resources.

While the headlines may have been surprising to the general public, they were not surprising to early childhood researchers, who have become increasingly concerned about the need to identify effective interventions for promoting very young children's social emotional competence and addressing challenging behavior. Research on the developmental trajectory of young children who have challenging behavior presents a disturbing forecast; young children who have persistent challenging behaviors are highly likely to

continue to have problems with socialization and school success and mental health concerns into adolescence and adulthood (Dunlap et al., 2006).

The significant rates at which emotional and behavior problems occur in young children are well established, with estimates of prevalence rates varying depending on the sample and criteria used. Campbell (1995) reviewed prevalence studies and estimated that 10–15% of young children have mild-to-moderate behavior problems. Lavigne et al. (1996) conducted a 5-year longitudinal study of about 500 children 2–5 years old from pediatric practices in Chicago and determined that 21% of the children met criteria for a diagnosable disorder, with 9% classified as severe. Data from the Early Childhood Longitudinal Study revealed that 10% of kindergarteners arrive at school with problematic behavior (West, Denton, & Germino-Hausken, 2000). Children living in poverty appear to be especially vulnerable, exhibiting rates that are higher than the general population (Qi & Kaiser, 2003). Data from a Head Start sample estimated prevalence rates between 10% and 23% for externalizing behaviors (Kupersmidt, Bryant, & Willoughby, 2000). The presence of social emotional problems can also be found in very young children, with a report of 4.5% of 1-year-olds in a large community sample having extreme scores on the difficult child index of the Parenting Stress Index (Briggs-Gowan, Carter, Skuban, & Horwitz, 2001).

In addition to concerns about the numbers of children with emotional and behavioral problems, research has demonstrated that early problems often persist well beyond early childhood. A review of longitudinal studies revealed that approximately 50% of preschool children with externalizing problems continued to show problems during their school years, with disruptive behavior showing the highest rates of persistence (Campbell, 1995). There appears to be remarkable stability both within the early years, with 88% of boys identified as aggressive at age 2 continuing to show clinical symptomology at age 5 and 58% remaining in the clinical range at age 6 (Shaw, Gilliom, & Giovannelli, 2000) and into adolescence (Egeland, Kalkoske, Gottesman, & Erickson, 1990; Pierce, Ewing, & Campbell, 1999). The diagnosis of oppositional defiance disorder (ODD) in the preschool years is predictive of subsequent diagnoses of ODD and attention deficit/hyperactivity disorder (ADHD) in grade school, with 50% of children who are diagnosed with ODD in preschool continuing to have difficulties in second and third grade (Lavigne et al., 2001). When children enter school with problem behavior and poor social skills, those problems are likely to persist (National Institute of Child Health and Human Development, 2003).

The prevalence and stability of severe problem behavior has resulted in a national interest in providing early intervention to children in the toddler and preschool years and prior to school entry (Shonkoff & Phillips, 2000; Simpson, Jivanjee, Koroloff, Doerfler, & Garcia, 2001; U.S. Public Health Service, 2000). The primary settings in which this effort is likely to occur are community-based early childhood programs, including public preschool programs, head start programs, and community child care. Tragically, many early childhood programs feel unequipped to meet the needs of children who are emotionally delayed or have problem behavior (Kaufmann & Wischmann, 1999). Teachers report that disruptive behavior is one of

the single greatest challenges they face in providing a quality program, and that there seem to be an increasing number of children who present with these problems (Arnold, McWilliams, & Arnold, 1998).

In this chapter, we describe a tiered model of prevention and promotion practices as a framework for the implementation of supports and interventions for young children within early childhood classrooms and programs (Fox, Dunlap, Hemmeter, Joseph, & Strain, 2003). The model that we describe is used in a similar fashion to schoolwide positive behavior support (SW-PBS) as a programwide effort to create systems of support for all children, including those with the most challenging behavior, and contributes to recent efforts to adapt the SW-PBS adoption process for early education programs (Benedict, Horner, & Squires, 2007; Frey, Boyce, & Tarullo, chapter 6, this volume; Stormont, Lewis, & Beckner, 2005; Stormont, Smith, & Lewis, 2007). The chapter provides an overview of the model and the practices affiliated with each tier and then discusses the issues related to programwide adoption with early childhood systems of care. The discussion of programwide adoption includes information on the steps to programwide adoption and illustrations of the process and outcomes in a range of early childhood programs. The chapter ends with a discussion of future directions for this promising model.

## **THE TEACHING PYRAMID MODEL**

The inspiration for the teaching pyramid model came from public health models of promotion, prevention, and intervention frameworks (Gordon, 1983; Simeonsson, 1991) and the SW-PBS three-tiered triangle (Horner, Sugai, Todd, & Lewis-Palmer, 2005; Walker et al., 1996). Thus, similar to the public health model, we describe the need for universal, secondary, and tertiary interventions to ensure the social-emotional development of all children, the provision of targeted supports to children at risk, and the inclusion of interventions for children with persistent challenges (Fox et al., 2003; Hemmeter, Ostrosky, & Fox, 2006; Powell, Dunlap, & Fox, 2006). In addition, the teaching pyramid model includes a detailed description of the research-based teaching practices that should be included at each level of the model within early childhood programs. These practices are drawn from the research on the classroom and teaching variables that promote children's social emotional development or are effective in addressing challenging behavior (Hemmeter, et al., 2006).

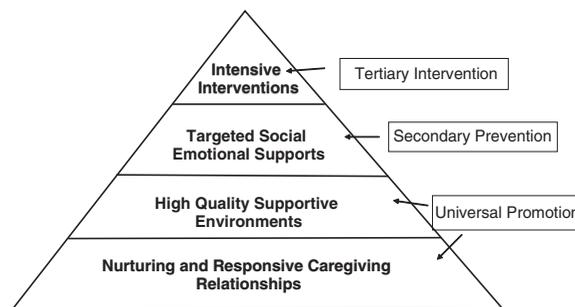
### ***Universal Promotion Practices***

The universal level of the teaching pyramid model describes practices that have been shown to promote the social development of children in early childhood programs. These practices include the development of responsive and positive relationships with children and the provision of high-quality environments (Howes, Phillips, & Whitebrook, 1992; Peisner-Feinberg & Burchinal, 1997; Peisner-Feinberg et al., 2000; Phillips, McCartney, & Scarr, 1987).

In the teaching pyramid model (see Fig. 8.1), we place building positive relationships with children, families, and colleagues as the foundation for all other practices and the universal conditions that are necessary for social competence promotion and behavior guidance. The focus on relationships puts primary importance on the teacher engaging in responsive and positive interactions with children and the development of partnerships with families. Moreover, it includes the critical importance of collaboration and teaming that is essential to the provision of a high-quality classroom environment and early childhood program.

The relationships level of the pyramid model includes teaching practices that are linked to positive child outcomes in behavior and social skills (Birch & Ladd, 1998; Bodrova & Leong, 1998; Cox, 2005; Howes & Hamilton, 1992; Howes & Smith, 1995; Kontos, 1999; Mill & Romano-White, 1999; National Research Council, 2001; Pianta, Steinberg, & Rollins, 1995). These practices include actively supporting children's play; responding to children's conversations; promoting the communicative attempts of children with language delays and disabilities; providing specific praise to encourage appropriate behavior; developing positive relationships with children and families; and collaborative teaming with colleagues and other professionals.

The second category of universal practice that is linked to promoting the social competence of all children is the provision of supportive environments and teaching interactions that support children's appropriate engagement in classroom activities and routines (DeKlyen & Odom, 1998; Frede, Austin, & Lindauer, 1993; Holloway & Reichart-Erickson, 1988; Jolivette, Wehby, Canale, & Massey, 2001; National Research Council, 2001; Peisner-Feinberg et al., 2000). This level of the pyramid includes the following practices: providing adequate materials; defining play centers; offering a developmentally appropriate and balanced schedule of activities; structuring transitions; providing individualized instructions for children who need support; teaching and promoting a small number of rules; providing clear directions; and providing engaging activities. These are all practices that are recognized by early educators as fundamental to a high-quality learning environment that fosters children's skill development and learning.



**Fig. 8.1.** The teaching pyramid model.

### ***Social Emotional Teaching Strategies***

In the teaching pyramid model, the provision of explicit instruction in social skills and emotional regulation comprises the secondary practices tier (Coie & Koepl, 1990; Denham & Burton, 1996; Mize & Ladd, 1990; National Research Council, 2001; Schneider, 1974; Serna, Nielsen, Lambros, & Forness, 2000; Shure & Spivack, 1980; Vaughn & Ridley, 1983; Webster-Stratton, Reid, & Hammond, 2001). In early childhood programs, all young children will require adult guidance and instruction to learn how to express their emotions appropriately, play cooperatively with peers, and use social problem-solving strategies. However, for some children it will be necessary to provide systematic and focused instruction to teach children discrete social emotional skills.

In this tier of the model, teachers are guided to provide instruction on the following skills: identifying and expressing emotions; self-regulation; social problem solving; initiating and maintaining interactions; cooperative responding; strategies for handling disappointment and anger; and friendship skills (e.g., being helpful, taking turns, giving compliments). In addition, teachers should develop strategies for partnering with families in the instruction of these skills in both the home and preschool settings. Many teachers use commercially developed curricula to support their instruction of these skills, and several curricula have empirical support for their effectiveness (Joseph & Strain, 2003).

Some early educators believed that the instruction of social skills occurs naturally within preschool programs as children are developmentally moving from solitary play skills to playing with others. However, the teaching pyramid model requires that teachers become intentional about how to teach social skills in a manner that moves beyond the provision of well-planned environments and supportive interactions. The instruction of social and emotional skills requires a systematic and comprehensive approach using embedded instruction within planned and routine activities. Effective teaching strategies include teaching the concept, modeling, rehearsing, role-playing, prompting children in context, and providing feedback when the behavior occurs (Grisham-Brown, Hemmeter, Pretti-Frontczak, 2005; Landy, 2002).

The objective of a secondary tier of practices is to provide instruction to children who are at risk of developing problem behavior but for whom an individualized behavior support plan may not be necessary. The precise distinction of that level of risk is often difficult to discern among young children, who are all developmentally expected to engage in minor levels of challenging behavior. For example, early educators expected to guide the behavior of preschool children who tantrum to express their frustration or who grab toys from peers when they want a turn. Thus, the teaching pyramid model includes the instruction of social emotional skills for all children and the need to provide targeted skill instruction that is individualized and systematic to children who may have challenges in social interaction or emotional regulation and are at risk of developing challenging behavior.

### ***Intensive, Individualized Interventions***

The teaching pyramid model includes the implementation of comprehensive, assessment-based behavior support plans for children with persistent challenging behavior (Chandler, Dahlquist, Repp, & Feltz, 1999; Fox & Clarke, 2006; Fox, Dunlap, & Cushing, 2002; Reichle et al., 1996). When a child has persistent challenging behavior that is unresponsive to classroom guidance procedures and the instruction of social and emotional skills, a collaborative team is formed with the family to engage in the process of individualized positive behavior support (I-PBS). This process is guided by a trained behavior specialist who is on staff or by a consultant (e.g., school psychologist, behavior specialist, mental health consultant) who provides consultation and support to the program.

The I-PBS process begins with a team meeting to discuss the child's challenging behavior and to develop strategies to gather information through a functional assessment. The classroom teacher and family contribute to the functional assessment process by providing observation data and participating in interviews. Once functional assessment data have been gathered, the collaborative team meets again to affirm behavior hypotheses and brainstorm behavior support strategies. The behavior support plan includes antecedent prevention strategies to address the triggers of challenging behavior; replacement skills that are alternatives to the challenging behavior; and consequence strategies that ensure challenging behavior is not reinforced or maintained. The behavior support plan is designed to address both home and preschool routines where challenging behavior is occurring. In this process, the team also considers supports to the families and strategies to address broader ecological factors that affect the family and their support of the child (e.g., housing, transportation, mental health supports) and issues that may affect the developmental status of the child (e.g., trauma counseling, medical treatment).

Once the behavior support plan is designed, it is implemented by classroom staff and the family. The behavior specialist or consultant provides the teacher with coaching during the initial days of implementation and is available to the family as they implement the behavior support strategies at home and in the community. The teacher and family collect ongoing data, usually in the form of a behavior rating scale, to provide information on the effectiveness of the plan in reducing behavior incidents. The collaborative team meets on a regular basis to review plan implementation and child outcomes.

### ***The Teaching Pyramid in Action***

The teaching pyramid defines the classroom practices needed to support the social emotional development of young children. Thus, there is a focus on the strategies that teachers will use in their relationships with individual children and families. This focus on individual children and their families is considered an essential practice in early education, and the use of whole class behavior management systems without regard for a child's developmental level or individual needs would violate how the field

defines appropriate practice (Bredekamp & Copple, 1997). However, when you enter into a classroom where the teaching pyramid model is in place, there is a palpable difference in comparison to classrooms where there is less focus on promoting social emotional competence.

We have developed and are field testing the Teaching Pyramid Observation Tool (TPOT) (Hemmeter & Fox, 2006), which is an implementation fidelity tool that reliably assesses the implementation of the teaching pyramid practices in preschool classrooms. In classrooms with high implementation fidelity, the adoption of these practices is immediately observable (Hemmeter, Fox, & Doubet, 2006; Hemmeter, Fox, Jack, Broyles, & Doubet, 2007). Classrooms that have adopted the teaching pyramid have visual displays of behavior expectations and classroom rules that are used in the instruction of children to review expectations or discuss the importance of rules. Teaching staff remind children of expected behavior and reference the behavior expectations within the ongoing activities of the day. In the high-implementation classrooms, we see well-planned transitions; carefully designed learning activities or centers and classroom schedules that promote child engagement; and the intentional teaching of social skills within all activities (e.g., group time, centers, outdoor play, bathroom, and snack). Classroom staff are constantly interacting with children, guiding their play, promoting their communication, and providing specific instruction, encouragement, and praise for appropriate behavior and the use of social skills.

In classrooms with implementation fidelity, there may still be behavior incidents, but the teacher's response to those incidents is different. Teachers confidently intervene with child disagreements and guide children to use problem solving or conflict resolution procedures. When children express frustration or anger, teachers validate the emotion and support children to use more appropriate forms of expression. If a child has severe behavior challenges, teachers calmly intervene or use program-adopted procedures to gain assistance with the child. In our observations of classrooms with implementation fidelity, we see children who are highly engaged and teachers who are guiding children's engagement and learning with confidence.

### **IMPLEMENTING THE TEACHING PYRAMID IN EARLY CHILDHOOD PROGRAMS**

Since 2000, we have worked with a variety of early childhood programs to implement programwide positive behavior support (PBS) (Fox & Little, 2001; Hemmeter, Fox, et al., 2006; Hemmeter et al., 2007). These programs have included a small faith-based child care program, large Head Start programs, public school early childhood programs, and state-level implementation across multiple early childhood service delivery systems. Through this work, we have found that the implementation of programwide PBS in early childhood settings requires a different approach than the implementation of SW-PBS because of the range of early childhood service delivery systems, the developmental needs of very young children, and the availability

of (or lack thereof) systems and resources to support programwide implementation. Unlike public school education for school-aged children, preschool children are served in a variety of early childhood systems, including Head Start, child care, and public preschool. These systems vary in the education level and qualifications of their teachers, access to resources and behavior support expertise, administrative staff to support the process, and implementation of data collection systems.

### ***Head Start***

Head Start is a federally funded child development program that serves children from birth through age 5 in center and home-based programs. Children are eligible for Head Start if their families' income is below the federal poverty level, and 10% of enrollment slots are reserved for children with special needs regardless of the income level of their family. Head Start is a federal-to-local program, meaning that money flows directly from the federal program to local grantees. A local grantee agency may have multiple programs housed in multiple sites. All Head Start programs must adhere to federal program performance standards.

As a result of the federal program and mandates, Head Start has a variety of supports and resources in place that could provide support for programwide implementation. Head Start programs have performance standards for mental health and behavior support services and as a result must have written policies and procedures in place related to these issues. They have resources for mental health consultants, management staff responsible for training and coaching teachers, and an ongoing program improvement process in place.

Data from the most recent FACES (National Head Start Families and Child Experiences Survey) study (Zill et al., 2006) found the quality of programs to range from minimal to excellent, with over 60% of the study programs falling in the good-to-excellent range. This represents an ongoing trend toward quality improvement in Head Start. Traditionally, teachers have not been required to have a college degree or required to have a teaching license. While there are regulations in place to increase the number of teachers with credentials that include college degrees, associate degrees, and or Child Development Associate (CDA) credentials, the regulations give programs several years to meet these regulations and only require that a certain percentage of staff meet the credentialing requirements. Another issue in Head Start programs is the tendency for national initiatives to drive what happens in local programs. The most recent example of this is the implementation of the National Reporting System, which requires all programs to assess all children multiple times during the school year (Hill, 2003). These initiatives have demanded the program's attention and resources, making it difficult to be proactive about more locally determined needs such as behavior support. Finally, while Head Start programs have resources, policies, and procedures related to behavior support in place as described, the effective implementation of these practices varies a great deal. Written policies and procedures related to behavior do not always translate into the consistent or effective implementation of those practices in programs (Quesenberry, 2007).

### ***Public School Preschool***

Public school preschool programs vary in type, funding, and location of programs. For over 20 years, states have been providing services to preschool children with disabilities in a variety of settings. Over the last 15 years, states have become involved in providing programs for preschool children who are at risk; most recently, many states have begun looking toward universal pre-K for all 4-year-old children. In 2006, 38 states were working on some type of pre-K initiative for at-risk children (Barnett, Hustedt, Hawkinson, & Robin, 2006). States have different service delivery models, with some states housing pre-K programs primarily in schools, and other states choosing to house pre-K programs in a variety of community-based settings, including Head Start and child care.

It is difficult to describe the resources available to publicly funded pre-K programs because of the variability of funding and models of implementation across states. When the pre-K programs are housed in public school settings such as elementary schools, programs may have resources available to implement programwide PBS, including hiring licensed teachers, behavior support personnel, and administrative staff responsible for professional development. However, when pre-K programs are housed in public schools or community-based settings such as Head Start or child care centers, access to resources may be determined by the setting in which they are housed. Even when pre-K programs are housed in public schools, there may be limitations to the resources that are available. For example, there may be a schoolwide PBS initiative, but the pre-K program may not be included in the initiative, or there may be behavior support personnel but they do not have experience working with very young children.

There are some limited national data available on the quality of state pre-K programs. Of those states that have pre-K initiatives, just over half require teachers to have a bachelor's degree, while others require a credential such as a CDA. The quality of state-funded pre-K programs is difficult to summarize as evaluations are typically state funded and implemented. Recent data available across states describe the extent to which state pre-K programs are meeting 10 benchmarks of quality. Of the programs that were reviewed, there was a wide range of quality, with 11 programs scoring below 5, 18 meeting 5–7 of the benchmarks, 16 meeting 8–9, and 2 meeting all 10 of the benchmarks (Barnett et al., 2006). Sixteen states raised their quality standards enough to meet benchmarks they had not met in previous years.

### ***Child Care***

Child care is a complex service delivery system that includes a variety of different program models, none of which is funded fully by federal or state resources. Child care includes center-based programs, family day care homes, and family, friends, and neighbor care. There are federal subsidies that can be used to assist needy families in accessing child care. These monies are administered through state block grants. The federal government also provides monies to states to work toward quality improvements

in child care and funds a national network of child care resource and referral agencies. Child care is, in many cases, the system least likely to have access to the resources needed to implement programwide behavior support. Probably the most compelling difference in child care is the lack of financial resources. Many child care programs depend almost entirely on paid tuition and state subsidies, neither of which is typically adequate for running a high-quality child care program. Many child care centers have no administrative staff other than the director, and in some small child care centers, the director also serves as a teacher. Many child care centers have relatively few training and degree requirements for teachers and require minimal ongoing professional development experiences. These characteristics can seriously affect the quality of care. The Cost, Quality, and Outcomes study, a national evaluation of child care programs, found that the quality of care in the settings in their study was frequently below average, with only 25% of the programs scoring in the good range or higher (Peisner-Feinberg et al., 2000).

One resource that is available to child care programs is the Resource and Referral Network. This network is designed to support families by providing information about child care in their community. In addition, they support local child care programs by providing training and technical assistance, but typically they cannot provide the level of support that is needed for programs to be able to implement a programwide PBS model. Finally, many states have started implementing quality rating systems for child care programs. These systems often provide incentives for programs to improve their quality rating and some professional development support to address quality improvement. Regardless of these potential resources, child care programs generally have the fewest resources for implementing a programwide model.

The descriptions of these systems provide a framework for understanding the complexity of developing a programwide model of behavior support in early childhood settings. Within and across these settings, there is a great deal of variability in program quality, training and qualifications of staff, and resources available to support a programwide model. An early childhood programwide model must be adapted to address the diverse needs of all early childhood settings.

In addition to the issues described, there are a number of other issues that should be addressed in the design and implementation of a programwide model for early childhood settings. The cognitive abilities of young children and the developmental nature of problem behavior in young children have significant implications for the practices that are implemented within a programwide model. For example, a token system that works with older children to support prosocial behaviors may be less effective for young children given their cognitive and social development levels and might not be consistent with recommended practice. Finally, the application of a programwide PBS model in early childhood programs should be focused on the classroom adoption of prevention and intervention strategies that are effective in promoting young children's social and emotional development and addressing challenging behavior (Fox et al., 2003). As described, the teaching pyramid includes primary promotion practices of building

positive adult-child relationships and the development of supportive classroom environments (e.g., routines, transitions, engaging activities, clear expectations); secondary practices of providing intentional and systematic instruction of social skills and emotional competencies (e.g., friendship skills, problem solving, communicating emotions, anger management); and at the tertiary level the provision of individualized interventions for children with persistent challenging behavior. Within an early childhood setting, the implementation of all levels of practice concurrently will be necessary for addressing the social emotional needs of all children in a preschool classroom.

### **PROGRAMWIDE ADOPTION OF THE TEACHING PYRAMID**

The implementation of programwide PBS follows many of the essential elements of SW-PBS, but has been tailored to address the unique configuration, services, and resources of early childhood programs and the developmental needs of young children. An essential component of programwide PBS in early childhood settings is family involvement. Families should be involved in the development, implementation, and evaluation of the programwide PBS plan. Many of the strategies associated with the teaching pyramid involve families, with the assumption that outcomes for children will be better if there is consistency between home and school. In addition, the early childhood years provide the context for supporting families in taking an active role in their child's education, which sets the foundation for their involvement throughout the child's schooling. Second, the teaching pyramid model provides the system of practices that should be implemented in early childhood classrooms at the universal, secondary, and tertiary levels. Rather than phasing in universal, secondary, and tertiary interventions, teachers are trained and supported in using practices at all levels of the pyramid from the beginning.

In our work, we have identified several "readiness indicators" that need to be in place for a program to be successful. First, programs have to have a "champion." An administrator within the program who understands the model, can articulate the benefits to staff, is willing to commit necessary resources, and who is trusted by the staff has to be willing to lead the initiative. Second, programs must have or find resources for providing ongoing training and support to those staff who work directly with children and families. Programwide implementation will simply not work if teachers do not have the competence and supports necessary to implement the model. Third, the program has to identify a leadership team that includes administrators, staff, families, and personnel with expertise in behavior support. It is the responsibility of the team to meet regularly; collect data; monitor progress, fidelity, and outcomes; and use the data to modify the plan. The team has to commit to a longitudinal process.

The leadership team begins the process by developing an implementation plan that includes the steps described on pages 188-190. These steps are designed to increase the likelihood that programwide adoption and implementation will occur by ensuring that staff are committed to

the process, have the training needed to implement the teaching pyramid practices, and that there are systems within the program that are supportive of teachers and are effective in addressing problem behavior.

### ***Determine Staff Commitment***

In schoolwide behavior support, commitment from at least 80% of program staff is required (Horner & Sugai, 2000). This is also essential to programwide implementation of the teaching pyramid model. Leadership teams can design strategies to establish buy-in and develop a process for obtaining commitment from program staff, including classroom staff, administrators, and other support staff (e.g., secretaries, custodians, kitchen staff). Programs with which we have worked have used a video on the teaching pyramid to provide an overview of the model to staff and then have staff complete a survey indicating the extent to which they can be committed to the model. Showing video is an effective strategy for describing the approach, including the importance of providing support systems for staff to implement the model.

### ***Develop a Plan for Family Involvement***

As we described, family involvement should be a key component of programwide implementation in early childhood programs. The leadership team should plan strategies for (a) providing information to families, (b) creating opportunities for training and supporting families, (c) developing a team-based process that includes family members when addressing an individual child's problem behavior, and (d) providing opportunities for families to give feedback and input to the program about the programwide initiative.

### ***Identify Programwide Expectations***

A primary component of universal practices in the schoolwide model is the identification of schoolwide expectations for children's behavior that create a focus on teaching positive, prosocial behaviors and preventing problem behaviors (Horner & Sugai, 2000; Lohrmann-O'Rourke et al., 2000; Taylor-Greene & Kartub, 2000). The implementation of programwide expectations by all staff increases the frequency with which children get feedback on their social behaviors across multiple settings in a school or program. The adoption of programwide expectations provides staff, families, and children with a positive way to talk about behavior. We guide early childhood programs to generate a list of developmentally appropriate expectations they have for children and to categorize those into a small number of expectations that are written in terms that young children can learn to use (Benedict et al., 2007). Programs then define what the expectations look like in different settings in the school or program. In the classroom, the expectation, "be respectful," might be translated into classroom rules that include use quiet voices, use soft touches, pick up your toys, and help your friend.

### ***Develop Strategies for Teaching and Acknowledging the Expectations***

Once expectations are identified, a systematic plan for teaching and acknowledging the expectations should be developed. For young children to learn what the expectations mean and what they look like (e.g., rules), it will be important to teach the expectations within meaningful contexts across multiple program environments (e.g., classroom, bathroom, hallway, bus, playground). Programs should develop strategies, activities, and schedules for teaching the expectations. A range of strategies should be used, including role-playing, modeling, discussion, practice, feedback in context, and reflection. Early childhood programs often use social emotional curricula that can be linked to the expectations identified by the program. In addition, a variety of materials, including books, puppets, social stories, and games, can be used to teach the expectations. Programs should also be intentional about developing strategies for acknowledging the expectations. Our experience with programs is that they have chosen acknowledgment strategies that can be embedded naturally into ongoing interactions with children (e.g., positive descriptive feedback, discussion during group times).

### ***Develop Processes for Addressing Problem Behavior***

Through our work with programs (Hemmeter, Fox, et al., 2006; Hemmeter et al., 2007), interviews with program staff (Quesenberry & Hemmeter, 2005), and review of program policies and procedures (Quesenberry, Ostrosky, & Hemmeter, 2007), we have found that many early childhood programs do not have systems in place for addressing the needs of children with persistent problem behavior, or there are systems in place that are either not effective or not consistent. We also know that children with persistent challenging behavior are at risk for being expelled from preschool programs (Gilliam, 2005). To ensure that teachers remain committed to the programwide plan and children are not expelled from the program, there must be processes in place for addressing the needs of those children with the most challenging behaviors, including a process for responding to short-term crisis situations (e.g., a child is “out of control” in a classroom) as well as addressing the needs of individual children with ongoing, persistent problem behavior. The process should specify (a) what teachers do in each situation in terms of documentation that is needed, (b) the staff responsible for responding to teacher requests, and (c) strategies for addressing the situation.

### ***Develop a Professional Development Plan***

The programwide implementation plan should include strategies for ensuring that all staff have the training needed to effectively implement the teaching pyramid practices. In addition, staff need training in the processes that will be used for addressing persistently challenging behavior. Finally, training related to teaching the expectations will be necessary to

ensure all staff (e.g., teachers, teaching assistants, administrators, custodians, kitchen staff, bus drivers) are supporting children around the expectations. The plan should also provide professional development opportunities that are individualized, provided in the teachers' classroom, and ongoing. The TPOT (Hemmeter & Fox, 2006) can be used as a tool for determining what practices teachers are implementing and in what areas they might need additional training and support.

### ***Develop a Data Collection Plan That Addresses Implementation Fidelity and Outcomes***

An important activity of the leadership team will be to use data for planning and decision making (Horner, Sugai, & Todd, 2001). In schoolwide models, "office discipline referrals" are used as a primary measure of the effectiveness of the schoolwide plan for reducing discipline problems. Sending children to the office is not a typical practice in early childhood programs. We have developed a tool called the Behavior Incident Report (BIR) that some early childhood programs have adopted to track the frequency and type of challenging behavior. The BIR provides information on the specific behaviors that occur as well as the settings, activities, and times when problem behavior is most likely to occur. These data can be used to document the change in behavior incidents over time, and information on variables that predict problem behavior can be used to develop professional development activities and other strategies. For example, if behavior incidents occur most frequently during large groups, the program might provide professional development opportunities on designing and implementing large-group activities. The BIR data might also provide the team with information that would lead to other changes. For example, if there is a significant number of behaviors that occur on the playground, observations might be conducted and strategies developed to decrease the likelihood that challenging behavior will occur in that setting (e.g., increase supervision, add more activities or toys, decrease number of children on the playground at the same time). The leadership team also should gather data on the progress of the program and individual teachers in the adoption of the programwide model and the teaching pyramid practices. We have developed a checklist for leadership teams to use to assess the implementation of the essential elements of the programwide model (i.e., Early Childhood Benchmarks of Quality, available from the authors). In addition, as described, the team may decide to use the TPOT to track individual teacher's progress toward implementation of the pyramid practices.

## **EXAMPLES OF PROGRAMWIDE IMPLEMENTATION**

In this section, we provide an overview of programwide implementation in a child care program and a public school program as well as an example of statewide implementation that includes multiple early childhood service delivery systems. The three programs have approached programwide implementation somewhat differently but include many of the key features we described.

### ***Palma Ceia Presbyterian Preschool***

Palma Ceia Presbyterian Preschool is a faith-based preschool program that has been operating for over 25 years. It was started as a program to provide early education experiences to young children with disabilities and also enrolled typically developing children to serve as playmates. As models for providing inclusive early childhood special education were refined over time, the program evolved into its current status of a high-quality early childhood program that serves primarily typically developing children with a natural proportion of children with disabilities.

The program is highly regarded within the community and typically has a substantial waiting list for admissions. The founding director still operates the preschool and is recognized as a leader in early childhood education and the provision of high-quality programs for young children with and without disabilities. The preschool was one of the first early childhood programs in its community to receive accreditation from the National Association for the Education of Young Children (NAEYC), and staff have served as trainers and validators for other programs that pursue accreditation.

The preschool is small and enrolls about 60 children from ages 12 months to 5 years who attend a half-day program. The inclusion of children with disabilities is at the heart of the program, and the preschool is committed to the support of children with physical, medical, and mental challenges. The program became interested in the adoption of a model for supporting the enrollment of children with challenging behavior when they were confronted with children whose behavior was not responsive to their typical child guidance procedures. While problem behavior was rare in the program, staff felt unequipped to deal with the most extreme challenges that were exhibited by some children in their program who had disabilities and autism.

In 1997, the program director sought the assistance of a university consultant to implement a model that would be developmentally appropriate, have contextual fit with their educational approach and program values, and could be implemented by program staff within the context of classroom routines (Fox & Little, 2001). Prior to the initiation of this effort, the program had consulted several outside experts for advice about individual children but did not feel that their recommendations were feasible for implementation within the program or a match to the school's values and instructional philosophy.

Palma Ceia Preschool had many of the elements of the teaching pyramid model in place. Teachers within the program were highly skilled and received ongoing professional development and supervision. The small size and stable leadership of the program allowed for the development of intimate and strong relationships between families and preschool staff. In the structure of classroom environments and teaching interactions, there was very little need of improvement. However, the program was concerned that they were completely unprepared to effectively and appropriately respond to some of the challenging behaviors of their children.

The adoption of the programwide initiative at Palma Ceia Preschool occurred during the time reports were first being published on the concept of SW-PBS. The effort at Palma Ceia initially included only some of the

elements that are now more common to a schoolwide or programwide effort. At Palma Ceia Preschool, the focus was on the development of tertiary supports for children with the most severe challenging behavior. It was the explicit desire of the preschool to have a zero-reject policy in the program and ensure that they had the capacity to support all children who chose to enroll in the school.

The university consultant assisted the program by teaching program staff the process of I-PBS (see chapter 3, this volume). This effort was launched with a training workshop for all program staff on PBS and the implementation of comprehensive behavior support plans. The preschool included information on PBS within the parent handbook and stated clearly what steps would be taken to collaboratively develop a plan with the family when there were concerns about challenging behavior.

In the first year of the effort, four children received a functional assessment and behavior support plan. The I-PBS process was conducted by a collaborative team (director or assistant director, teacher, parent) with guidance from the university consultant. The explicit goal of the effort was to ensure that effective support was provided to children and to build the capacity of the program to be able to implement I-PBS without reliance on outside consultation. In the next 2 years of adoption, the consultant was available to assist with training of staff and refining the model. During this period, an additional four behavior support plans were developed and implemented.

In the last decade, Palma Ceia has continued to rely on I-PBS as their process for addressing the needs of children with persistent behavior challenges. Each year, they typically have one or two children who need that level of individualized, intensive support. In addition, the preschool has added elements from the teaching pyramid model and now has adopted programwide expectations that are promoted in classrooms and with their families.

### ***Valeska-Hinton Early Childhood Education Center***

Valeska Hinton Early Childhood Education Center (VHECEC) is a NAEYC-accredited public school program in Peoria, Illinois, that serves over 400 children in preschool through first grade. In addition, the center houses a variety of other programs. Highly qualified staff, family involvement, and ongoing professional development are key components of the program.

At the time that they began thinking about a programwide approach, VHECEC had ongoing concerns about challenging behavior. In the spring of 2002, the existing administrative team (i.e., principal, professional development coordinator, lead teacher, family liaison) discussed the need to focus on supporting children, teachers, and families in the area of social and emotional development and challenging behavior. The May 2002 Professional Development Goals Survey gathered from the staff identified challenging behavior as the most requested training need. Staff members felt unsupported, frustrated, and overwhelmed. The administrative team and staff members wanted to develop a plan for addressing social and emotional development and challenging behavior that would increase time

for instruction, encourage more positive interactions with children, provide ongoing training and support for staff, and involve families.

After considering different approaches, the team decided that a programwide system of PBS would include all of the components they were looking for, including instruction and promotion of positive social behavior, prevention of challenging behavior, and individual supports for children with persistent challenging behavior as well as supports for teachers and staff. The principal and other administrators were instrumental in the development of PBS at Valeska Hinton. This was critical because it took a great deal of time and resources to develop the plan. The administrative team contacted staff from the Center on the Social and Emotional Foundations for Early Learning (CSEFEL) to assist with the development of the plan. A CSEFEL staff person facilitated the development of the plan. A PBS leadership team was formed and included the administrative team members as well as staff representing the variety of programs, ages of children, and staff positions in their school. The team met at least monthly to develop the plan. Families were kept informed throughout the process and were invited to participate in the development the PBS plan. Updates and opportunities were provided at monthly parent meetings. One set of parent-teacher conferences focused on sharing programwide expectations with families.

The leadership team identified *Together We Can* as the name for their initiative and began work on developing programwide expectations. Staff members said that the process of identifying developmentally appropriate expectations gave them the opportunity to explore their own beliefs and philosophies about how young children develop and learn. After many hours of engaging debates, the group chose three programwide behavior expectations: Children and adults at VHECEC are expected to be respectful, be safe, and be team players. An important lesson the staff learned through this process was the need to establish expectations for both children and adults. Thus, their programwide expectations meant a commitment to holding themselves accountable for the expectations not only in their interactions with the children but in their interactions with their colleagues and with families.

The team decided to develop a time line for teaching the expectations but did not expect all teachers to teach and acknowledge the expectations in the same way. This was important in terms of addressing the unique developmental needs of children in preschool to first grade. Strategies for teaching the expectations were generated, including integrating the expectations into their use of the *SECOND STEP CURRICULUM*, modeling and role-playing expectations, and taking and discussing photos of students demonstrating the expectations. A variety of strategies were developed to recognize positive, prosocial behavior, including verbal descriptive feedback (e.g., "Thank you for being safe on the playground today when you walked around the swing"), photos of the children engaged in the expectations displayed on a bulletin board in the center court of the building, and a book developed by a class that included pictures and descriptions of children engaging in the expectations.

Next, the team focused on developing the program's capacity to develop plans for supporting children with the most significant problem behaviors.

The team developed a plan for what teachers would do when they needed immediate help (e.g., when behavior was immediately dangerous or overly disruptive) as well as a process for developing individualized support plans. For immediate help, classroom staff could call the office to request that a support person come to the classroom right away to help with the situation. The support person was supposed to help with the classroom while the teacher dealt with the individual child. A form was developed that teachers were to complete to indicate how useful the assistance was. The goal was to decrease crisis situations. In addition, a process was developed for addressing the needs of children with ongoing challenging behavior. Staff were trained in conducting observations, gathering information (including family and staff), developing behavior hypotheses, and writing a behavior support plan for a child.

VHECEC had a commitment to effective approaches to professional development, including having a professional development staff member to coordinate all professional development activities. A variety of professional development activities were planned and implemented related to the PBS initiative. A series of in-service workshops was conducted for all staff members (i.e., support staff, associate teachers, teachers, student teachers, administration) on the topics of (a) positive relationships with children, families, and colleagues; (b) classroom preventive practices; (c) social and emotional skills strategies; and (d) intensive individualized interventions. This series followed the components of the teaching pyramid described here (Fox et al., 2003). Second, the team developed a plan for how they would orient new staff to the model as they were hired. Finally, the professional development coordinator and lead teacher made themselves available to support teachers as they implemented these strategies in their classroom.

Once the plan was developed, the work group took more of an advisory role. They met regularly to review the plan; arrange professional development activities for staff, students, and families; and advise the administrative team. Some of the outcomes of the PBS approach at Valeska Hinton include schoolwide agreement and focus on PBS, an increased feeling of unity among staff members, shared common language surrounding children's behaviors, and a reduction in children being "sent (taken) to the office."

While the initiative at VHECEC produced some important outcomes, they did not develop a comprehensive data collection system for use in monitoring implementation and outcomes. The team conducted staff surveys and kept records on calls to the office for crisis help, the development of plans for individual children, and staff satisfaction. However, data were not collected or summarized on a regular basis, and data were not used for decision making in a systematic way.

### ***Iowa Initiative for Programwide PBS***

In 2006, state education officials became interested in the application of programwide PBS to early childhood programs following the states' extensive and successful engagement in schoolwide applications of PBS. Since 2002, schools in Iowa have been systematically expanding their implementation of SW-PBS within elementary and secondary schools with the

support of Department of Education technical assistance providers and national consultants. Iowa was excited about the outcomes they had experienced with implementing SW-PBS and was interested in bringing this approach to their preschool classrooms within public schools, community child care, and Head Start programs.

The early childhood programwide effort began in the fall of 2006 with the training of leadership teams from 14 Head Start programs in a variety of communities across the state. Each leadership team included an Area Education Agency (AEA) technical assistance provider who was familiar with SW-PBS and charged with providing training, consultation, and other educational services to local programs. The structure of program leadership teams mirrored the requirements of SW-PBS initiatives with the requirement of administrative support, teacher representation, the use of data-based decision making, and a commitment to a multiple-year systems change process. The leadership teams were provided with a 3-day workshop on the essential features of programwide PBS and the activities involved in adoption and implementation. Teams returned to their programs and worked with AEA personnel in the adoption of the model. Teams were provided with an evaluation package to collect ongoing data on their implementation progress and program outcomes. The evaluation package included the use of an Early Childhood Benchmarks of Quality to track programwide implementation and the TPOT to track classroom implementation of the teaching pyramid model. Teams were provided with a mechanism to track program incidents (e.g., calls to families, behavior consultations) and behavior incidents. Behavior incident tracking involved a data system that provided teams with a visual analysis of the incidents over time and by other factors (e.g., location, teacher, type of behavior) that could be used by leadership teams for data-based decision making. Teachers also completed the Social Skills Rating System (SSRS; Gresham & Elliot, 1990) to identify children who were at risk or had significant concerns. The SSRS also provided a measure that could be used to track child outcomes.

The assistance provided to Iowa teams was locally determined. Consultants provided the initial 3-day team training and several team implementation workshops during the year. Workshops during the year focused on implementing the evaluation plan and the use of the I-PBS process for children with persistent challenges. Each team was provided with training materials on the teaching pyramid and was instructed to develop individualized professional development plans on implementation of the teaching pyramid and to provide general training on the teaching pyramid model. Leadership teams were instructed to meet monthly to guide implementation efforts and review data.

In the initial year of implementation, programs were encouraged to ensure that teachers were making progress in implementing the teaching pyramid model and that the program was developing the universal elements that provide a programwide focus on promoting expectations and implementing systems for supporting children with behavioral challenges. Data from the first year indicated that classroom teachers improved in the implementation of the teaching pyramid

model as measured by the TPOT, and that program teams made progress in the implementation of the model as measured by the Early Childhood Benchmarks of Quality. Programs reported that they found the TPOT to be helpful in identifying where teachers needed support to improve practice and the identification of individual and programwide professional development activities.

Data collection was a challenge for the Iowa programs as Head Start has many reporting requirements, and practitioners in the program have limited training and experience in the use of data for making decisions and tracking outcomes. The programs began using the BIR to track children's challenging behavior and to gather analytic information that could assist in problem solving the factors related to incidents of challenging behavior. In the first year of implementation, half of the programs were able to use the BIR productively, and half the programs were inconsistent in their use of the system. All of the programs collected child assessment information on social skills and problem behavior using the SSRS (Gresham & Elliot, 1990). The programs used the SSRS information to identify children in need of targeted and tertiary interventions. One of the programs was able to gather pre- and postmeasures using the SSRS to document child growth in the first year. That program showed evidence of growth in implementation on the benchmarks and TPOT and documented a statistically significant change in the overall average standard score in children's social skills and a meaningful decrease in the average standard score for problem behavior.

In 2007, a second cohort of programs applied to participate and have received training on implementation and evaluation procedures. This cohort includes Head Start programs, private community child care programs, and public school classrooms. As the state expands its efforts in programwide adoption, it is also building statewide capacity to offer training in the teaching pyramid model. State leaders from the various early childhood programs and initiatives (e.g., Head Start, child care, special education, child care resource and referral, higher education, etc.) have formed a state leadership team to work in partnership with the CSEFEL to develop a cadre of trainers who can provide training and technical assistance in the implementation of the teaching pyramid model.

## **SUMMARY AND FUTURE DIRECTIONS**

Over the last 5 years, we have made substantial progress in articulating and implementing a model for programwide PBS in early childhood settings (Fox & Little, 2001; Hemmeter, Fox, et al., 2006; Hemmeter et al., 2007) and have engaged in national efforts with numerous colleagues to facilitate the adoption of the teaching pyramid model as a framework for promoting young children's social-emotional development and addressing challenging behavior through two federally funded national centers (CESEFEL, [www.vanderbilt.edu/csefel](http://www.vanderbilt.edu/csefel); Center for Evidence-Based Practice: Young Children with Challenging Behavior, [www.challengingbehavior.org](http://www.challengingbehavior.org)). These efforts have built on the current database of effective early childhood

intervention practices and a careful translation of the pioneering work of the SW-PBS model (Hemmeter, Fox, et al., 2006). As we have worked within early childhood programs, there have been several lessons learned and challenges associated with the model. These are described next.

Schoolwide and districtwide PBS involves core features, approaches to intervention, processes for adoption, and the measurement of outcomes that overlays on a fairly uniform setting: a school or school district. In early childhood applications, the settings may be quite varied and do not involve standard features. For example, we have worked with small child care programs, large programs with multiple centers and services (including home consultation), public school classrooms, and public schools. Within these settings, there may or may not be resource personnel, data collection systems, professional development resources, and behavior consultation expertise. The diversity of these programs translates into model adoption efforts that are often idiosyncratic to the setting. In addition, we have yet to work in an early childhood program that uses a standard process for noting when a child has problem behavior and needs support or intervention. The lack of the office discipline referral as a measure that is common to the program or a similar measure that can be used as an analytic tool or to gauge a program's progress has been a challenge for implementation.

In SW-PBS, the assessment of whether universal interventions are in place considers whether a team has been established, expectations have been taught and are monitored, problem behaviors are being prevented and discouraged, and data are used for decision making (Horner et al., 2005). In early childhood implementation, while there is an emphasis on programwide expectations and systems for data-based decision making and team implementation, the prevention power of the pyramid model is predicated on the implementation of the practices associated with the model by individual teachers within their classrooms. In our efforts toward programwide implementation, we have focused on ensuring that the teaching pyramid model is being implemented with fidelity within every classroom. The teaching pyramid model describes the practices and processes that teachers should use to support the social development of all children and to address the social and behavioral needs of individual children. It is the consistent delivery of these research-based strategies that leads to improved outcomes for all children.

We have also found it necessary to support programs in implementing all tiers of the model simultaneously to ensure that children with persistent challenges can continue to be enrolled in the program and receive services. Without the safety net of an entitlement to education, young children who pose behavior challenges are at significant risk of being expelled from their current placement. To ensure that an assessment-based process for developing behavior support plans is a part of the programwide effort, we have guided leadership teams to identify internal resources for making this a systematic part of the program or to partner with a consultant (e.g., behavior specialist, mental health consultant) to offer these supports. We have also provided training in the individualized behavior support process to all program

staff, with more targeted training to staff members who will serve as behavior support facilitators.

As the teaching pyramid model has increased in its national visibility as a framework for supporting social emotional development and addressing the challenging behavior of young children, there have been numerous inquiries about its fit for preschool classrooms within schools that are implementing SW-PBS. It is our hope that the teaching pyramid model framework nests neatly within a schoolwide effort and can be recognized as the approach to instruction and behavior intervention that should be used within preschool classrooms.

In our programwide implementation work, we have identified some challenges that will inevitably lead to refinements in the model. We have found that early childhood programs have very limited experience with teaming at a program level and developing systems for innovation sustainability. While the notion that teachers work together at a committee level to implement an innovation or initiative in schools is common, this opportunity is rare within early childhood programs. This has important implications for the training and support of a program leadership team. Another challenge that must be noted is the adoption of data collection systems that are meaningful for use with young children and yield data that can guide the refinement of the model. While we have experienced some success in developing data systems that programs are using, many programs have a difficult time integrating simple data collection measures into their ongoing procedures.

Despite these challenges, we have been encouraged by the enthusiastic interest in programwide PBS by early childhood educators, programs, and policy makers. We have received an overwhelming response from state systems that wish to build the capacity of their professional development systems to ensure that training and coaching in the teaching pyramid model is available within their early care and education programs. Since 2000, there has been a crescendo of activity in states focused on the development of models for addressing young children's behavioral challenges and mental health concerns. Programwide adoption of the teaching pyramid has been welcomed as an approach that can be implemented by early educators within their daily nurturance of young children. We are confident that over the next few years data from programs that are implementing this model will demonstrate its value.

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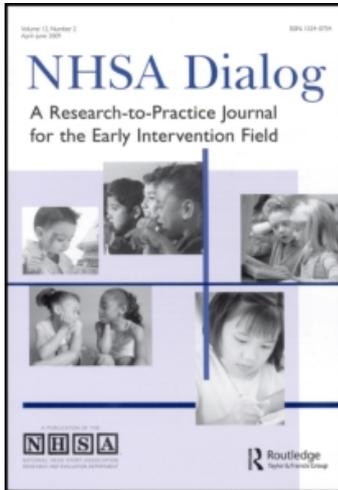
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### The Teaching Pyramid: A Model for the Implementation of Classroom Practices Within a Program-Wide Approach to Behavior Support

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# The *Teaching Pyramid*: A Model for the Implementation of Classroom Practices Within a Program-Wide Approach to Behavior Support

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The *Teaching Pyramid* (Fox, Dunlap, Hemmeter, Joseph, & Strain, 2003) is a framework for organizing evidence-based practices for promoting social-emotional development and preventing and addressing challenging behavior in preschool programs. In this article, we briefly describe the *Teaching Pyramid* as a framework for implementing effective practices in the context of a program-wide approach to behavior support. We describe a set of training materials and a fidelity measurement tool and discuss how they may be used to support teachers in implementing new instructional approaches with fidelity. Finally, we discuss other supports that teachers will need to implement the *Teaching Pyramid* practices and future research that is needed in this area.

*Keywords:* behavior problems, program operations, emotional development

The *Teaching Pyramid* (Fox, Dunlap, Hemmeter, Joseph, & Strain, 2003) provides a framework for organizing promotion, prevention, and intervention practices for supporting social-emotional development and preventing and addressing challenging behavior in preschool children. The model is based on a public health prevention framework (Gordon, 1983; Simeonsson, 1991) and the school-wide Positive Behavior Support (PBS) three-tiered triangle (Horner, Sugai, Todd, & Lewis-Palmer, 2005; Walker et al., 1996) with an emphasis on the need to provide universal, secondary, and tertiary interventions simultaneously to ensure that the needs of all young children can be met within an early childhood program (Fox et al., 2003; Hemmeter, Ostrosky, & Fox, 2006; Powell, Dunlap, & Fox, 2006). For preschool programs implementing a program-wide approach to behavior support, the *Teaching Pyramid* provides a framework for the practices that should be implemented by classroom staff to ensure that all children are receiving effective instructional and behavioral supports and interventions (Hemmeter, Fox, & Doubet, 2006; Hemmeter, Fox,

Jack, & Broyles, 2007). Although the pyramid has application to children ages birth to 2 years, it was originally conceptualized as a classroom-based model for children ages 2 to 5 years.

The *Teaching Pyramid* provides guidance to early educators about the use of effective behavior support and instructional practices that is based upon research on effective instruction for young children (National Research Council, 2001), the promotion of children's social competence (Guralnick & Neville, 1997; Hyson, 2004; Webster-Stratton, 1999), and the implementation of individual positive behavior support for children with the most severe behavior challenges (Fox, Dunlap, & Cushing, 2002; Fox, Dunlap, & Powell, 2002). The *Teaching Pyramid* organizes these research-based practices into a three-tiered model that may be used to promote social-emotional competence and address challenging behavior of all children within a preschool classroom, including those with and without disabilities as well as those who are at risk (Fox et al., 2003).

In this article, we briefly describe the *Teaching Pyramid* and discuss issues related to implementation fidelity. We describe a set of training materials and a fidelity measurement tool that may be used to support teachers in implementing new instructional and behavior support strategies in the context of a tiered model. Finally, we discuss future research that is needed in this area.

### THE TEACHING PYRAMID

The *Teaching Pyramid* is based on two critical assumptions. The first assumption is that there is a relationship between children's social-emotional development, communication skills, and problem behavior (Beitchman, Wilson, Brownlie, Walters, & Lancee, 1996; Horwitz et al., 2003; Irwin, Carter & Briggs-Gowan, 2002; Ostrov & Crick, 2007). When young children are socially competent and have well-developed communication skills, they are less likely to engage in challenging behavior (Carter, Briggs-Gowan, & Davis, 2004; Ostrov & Godleski, 2007). The second assumption is that early educators must be prepared to implement a range of teaching strategies and practices to effectively meet the needs of all young children, including children at risk of developing challenging behavior and those children who have significant behavioral issues (Hemmeter & Fox, 2008; Webster-Stratton, Reid, & Hammond, 2001). In addition to the supports all young children need, data on the incidence and prevalence of children with challenging behavior and mental health needs in preschool programs suggest that there is likely to be somewhere between 10 and 30% of children in a given classroom who will need more targeted supports (Briggs-Gowan, Carter, Skuban, & Horwitz, 2001; S. B. Campbell, 1995; Qi & Kaiser, 2003).

The *Teaching Pyramid* is depicted in Figure 1. At the primary prevention level, the model includes two sets of universal practices, *nurturing and responsive caregiving relationships* and *high quality supportive environments*. This level of the model recognizes the critical importance of building positive relationships with children, families, and colleagues as the foundational condition that is necessary for the promotion of social competence, the provision of targeted instruction, and behavioral guidance. These practices are entirely consistent with Developmentally Appropriate Practice as described by the National Association for the Education of Young Children (NAEYC).

*Building responsive and nurturing relationships*, represented at the bottom of the pyramid, includes the following key practices: actively supporting children's play, responding to children's

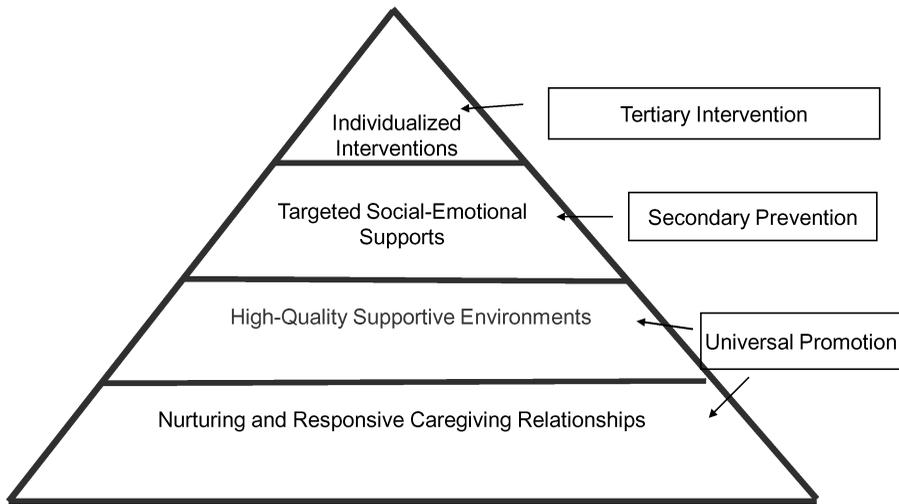


FIGURE 1 The *Teaching Pyramid* model.

conversations, promoting the communicative attempts of children with language delays and disabilities, providing specific praise to encourage appropriate behavior, developing positive relationships with children and families, and collaborative teaming with colleagues and other professionals. These practices have been linked to positive child outcomes in social development and behavior (Birch & Ladd, 1998; Bodrova & Leong, 1998; Cox, 2005; Howes & Hamilton, 1992; Howes & Smith, 1995; Kontos, 1999; Mill & Romano-White, 1999; National Research Council, 2001; Pianta, Steinberg, & Rollins, 1995).

The second component of universal practices includes the curricular, environmental, and instructional teaching practices that are often described as key components of a high-quality early education program (National Research Council, 2001). The provision of high-quality supportive environments includes providing adequate materials, defining play centers, offering a developmentally appropriate and balanced schedule of activities, structuring transitions, providing individualized instruction for children who need support, teaching and promoting a small number of rules, providing clear directions, and providing engaging activities. These are all teaching practices that have been linked to promoting children's appropriate engagement in classroom activities and routines (DeKlyen & Odom, 1998; Frede, Austin, & Lindauer, 1993; Holloway & Reichart-Erickson, 1988; Jolivet, Wehby, Canale, & Massey, 2001; National Research Council, 2001; Peisner-Feinberg et al., 2000).

At the secondary prevention level, the *Teaching Pyramid* includes targeted practices needed to support the social-emotional competence of children at risk of developing challenging behavior. Although all children need teacher guidance and instruction in the area of social and emotional skills, children who have delays in social skills and emotional regulation are in need of focused and intensive instruction (Coie & Koepl, 1990; Denham & Burton, 1996; Mize & Ladd, 1990; National Research Council, 2001; Schneider, 1974; Serna, Nielsen, Lambros, & Forness, 2000; Shure & Spivack, 1980; Vaughn & Ridley, 1983; Webster-Stratton, et al., 2001). At this level of the model, teachers must be able to provide instruction on the

following skills: identifying and expressing emotions, self-regulation, social problem solving, initiating and maintaining interactions, strategies for handling disappointment and anger, and friendship skills (e.g., being helpful, taking turns, giving compliments). There are a number of approaches to teaching these skills including embedded instruction (Fox & Lentini, 2006; Grisham-Brown, Hemmeter, & Pretti-Frontczak, 2005; Hyson, 2004) and curricula that provide teachers with an instructional sequence and teaching activities (Domitrovich, Cortes, & Greenberg, 2007; Domitrovich, Greenberg, Kusché, & Cortes, 2004; Walker et al., 1998; Walker et al., 1997; Webster-Stratton, 2000; Webster-Stratton & Reid, 2004; see Joseph & Strain, 2003, for a review).

The tertiary level of the *Teaching Pyramid* involves the provision of assessment-based individualized positive behavior support to children who have persistent challenging behavior (Chandler, Dahlquist, Repp, & Feltz, 1999; Fox & Clarke, 2006; Fox, Dunlop, & Powell, 2002; Reichle et al., 1996). The teaching practices at this level require an understanding that challenging behavior is related to environmental factors and can be understood using a functional assessment process. Teachers are expected to participate in a team-based process of individualized positive behavior support beginning with collecting information to be used within the functional assessment process, collaborating in the development of a comprehensive behavior support plan, implementing the plan in the classrooms, and collecting data to monitor intervention outcomes. The behavior support process is typically guided by a trained behavior support specialist or mental health consultant with the expectation that the teacher is primarily responsible for plan implementation.

### IMPLEMENTATION OF THE *TEACHING PYRAMID*

Although there is conceptual support for a model that includes universal strategies for all children, targeted interventions for children at risk, and intensive interventions for children with severe and persistent problem behaviors, there are no published data on models that include all levels of practices applied within classrooms by teachers for children with and without disabilities. Thus, while there are practices and packaged interventions at each tier of the *Teaching Pyramid* that have been demonstrated to be effective, we do not yet know the effects of a model that implements all of these practices concurrently within a classroom setting. An important step in studying such a model is ensuring that teachers can implement the range of practices associated with all of the tiers. Because the model is designed to be a classroom-wide model, research on the effectiveness of the model depends on teachers being able to implement it with fidelity. Although the *Teaching Pyramid* includes teaching practices that are consistent with professional standards and recommended practices from national professional associations and entities (e.g., Head Start, National Association for the Education of Young Children [NAEYC], Division for Early Childhood of the Council for Exceptional Children), the implementation of the model often poses challenges for teachers. The model includes a breadth of teaching practices that range from familiar practices related to establishing relationships and designing environments to highly specified instructional practices designed to ensure that the social and emotional needs of all children are met. The preservice preparation or training of many early educators was focused on the provision of the universal level of the pyramid with little preparation for how to implement targeted and intensive, individualized instructional and behavioral support needs of children at

risk for and with behavioral challenges (Hemmeter, Santos, & Ostrosky, 2008). Another challenge for implementation is the emphasis on the explicit instruction of social and emotional skills. In our observations of preschool classrooms, we find that teachers are not consistently implementing effective instructional approaches, particularly those related to individualized instruction for addressing the needs of children who need more targeted support (Hemmeter, Fox, & Snyder, 2008a). Moreover, we find that many programs have failed to adopt a process to provide support for children with persistent behavior challenges and lack experience with the use of functional assessment and behavior support plan development (Fox & Hemmeter, 2009; Hemmeter et al., 2007).

An important component of the adoption of a program-wide model is ensuring that the practices associated with positive child outcomes are being implemented with fidelity. Because the young child develops a primary relationship with the teacher and interventions are delivered through that primary relationship, the success of the program-wide approach is highly reliant on the teacher's use of the practices in their everyday interactions with the child. Thus, a process must be used to assess teachers' level of implementation of the model and to provide training and support based on the teacher's current level of implementation.

Measuring fidelity of implementation also provides information that is useful in making decisions about the training and technical assistance needs of teachers and the extent to which the program-wide approach is in place. We have developed an observation tool to assess the extent to which a teacher is implementing the *Teaching Pyramid* practices within the classroom. This tool, the *Teaching Pyramid* Observation Tool (TPOT; Hemmeter, Fox, & Snyder, 2008b) is completed during a 2-hr observation of the classroom. The components of the TPOT include environmental features, ratings of instructional practices, and a list of red flag items that indicate teaching practices or classroom issues that are detrimental to the promotion of social skills or effective behavior interventions. The TPOT includes items that address schedules and routines, transitions between activities, teacher conversations with children, the promotion of child engagement, teaching children behavior expectations, providing directions, implementing strategies for responding to problem behavior, teaching social skills and emotional competences, teaching problem solving, and teaching friendship skills. In addition, information is gained from the teacher on how they provide support to children with persistent challenging behavior and efforts to communicate with families and promote involvement in the classroom. Finally, the information that is provided to families to support the social-emotional development of children and the strategies used for collaborative teaming are assessed.

In a recently completed study on the TPOT, data from three observations in each of 50 classes indicated that the greatest source of variability was between classes and that there was little variability in scores across time or observers (Hemmeter et al., 2008a). Further, there were significant relationships between the TPOT scores and the quality of observed interactions as measured by the Classroom Assessment Scoring System (CLASS; Pianta, LaParo, & Hamre, 2008). In our use of the TPOT in classrooms where program-wide adoption is not occurring, the average rating of implementation across classrooms is only about 40% of the total possible indicators (Hemmeter et al., 2008a). When we train teachers to use the pyramid, we expect that they will reach a criterion level of implementation that is between 70 and 80%. Thus, the data from our observations in classrooms in which teachers have not been trained suggest that teachers' implementation of the pyramid practices is significantly lower than criterion level.

## IMPLEMENTING A PROFESSIONAL DEVELOPMENT PLAN TO SUPPORT THE USE OF PRACTICES ASSOCIATED WITH THE *TEACHING PYRAMID*

To address issues related to implementation fidelity, a key component of a program-wide model will be the implementation of a professional development plan to support teachers to implement the *Teaching Pyramid* practices with fidelity. High-quality professional development is key to supporting and sustaining teachers' use of evidence-based practices (Borko, 2004; Darling-Hammond & Bransford, 2005). Recently, the National Professional Development Center on Inclusion (NPDCI; 2007) defined professional development as structured teaching and learning experiences that are formalized and designed to support the acquisition of professional knowledge, skills, and dispositions as well as the application of this knowledge in practice. Although a number of professional development strategies have been identified in the literature, there is evidence that the most common professional development practices (e.g., one-shot workshops) may be the least effective in terms of supporting the use of practices in everyday settings (Garet, Porter, Desimone, Birman, & Yoon, 2001; Sexton et al., 1996). There is growing awareness that one-shot workshops are not effective in promoting program-level changes, teaching practices, or child outcomes because they do not provide the ongoing learning experiences and support essential for teacher change to occur. NPDCI's definition of professional development reflects the growing recognition in the field that for professional development to be effective (i.e., result in behavior change in practice), it must be systematic and coordinated, and it must include actual supports to teachers in the classroom (Garet et al., 2001; Klinger, 2004; Winton & McCollum, 2008).

Given the research on professional development as well as our findings related to the extent to which the *Teaching Pyramid* practices are implemented in classrooms, we recommend a comprehensive approach to supporting teachers to implement the pyramid practices that includes training on the practices associated with the pyramid, ongoing coaching and feedback in the classroom, and guidance in developing and implementing behavior support plans for individual children. In this section, we describe each of these components as well as resources that are available related to each component. This professional development plan or approach is critical to the program-wide implementation of the *Teaching Pyramid*.

### Providing Training on the *Teaching Pyramid* Practices

As faculty on the Center on the Social and Emotional Foundations for Early Learning (CSEFEL), we are keenly aware of the need for comprehensive training to support teachers in using the pyramid practices. Teachers often have received training on some of the practices associated with the *Teaching Pyramid* but have not been trained in a comprehensive model that includes all levels of a tiered approach (Hemmeter, Corso, & Cheatham, 2006; Hemmeter et al., 2008). In order to address the training needs of early childhood educators, CSEFEL developed a comprehensive set of training materials around each of the levels of the *Teaching Pyramid*. An outline of the training modules is included in Table 1 and all materials can be downloaded at no charge ([www.vanderbilt.edu/csefel](http://www.vanderbilt.edu/csefel)).

The training modules include 4 full days of training: 1 day on relationships and environments; 1 day on social-emotional teaching strategies; and 2 days on intensive, individualized interventions.

TABLE 1  
The Center on the Social-Emotional Foundations for Early Learning Training Modules

Module Title	Topics
Module 1: Designing Supportive Environments: Promoting Children's Success	<ul style="list-style-type: none"> <li>Examining attitudes</li> <li>Relationship between challenging behavior and social-emotional development</li> <li>Building relationships</li> <li>Designing the physical environment</li> <li>Schedules, routines, &amp; transitions</li> <li>Activities that promote engagement</li> <li>Giving directions</li> <li>Teaching classroom rules</li> <li>Ongoing monitoring and positive attention</li> <li>Using positive feedback &amp; encouragement</li> </ul>
Module 2: Social-Emotional Teaching Strategies	<ul style="list-style-type: none"> <li>Identifying the importance of teaching social-emotional skills: Why, when, what, and how</li> <li>Developing friendship skills</li> <li>Enhancing emotional literacy skills</li> <li>Controlling anger and impulse</li> <li>Problem solving</li> </ul>
Module 3A: Individualized Intensive Interventions: Determining the Meaning of Children's Challenging Behavior	<ul style="list-style-type: none"> <li>Challenging behavior</li> <li>Overview of PBS</li> <li>Dimensions of communication</li> <li>Behavior equation</li> <li>The process of PBS and building a team</li> <li>Introduction to functional assessment</li> <li>Functional assessment observation</li> <li>Conducting observations, data to collect</li> <li>Functional assessment interview</li> <li>Determining the function</li> <li>Hypothesis development</li> <li>Case study activity: Hypothesis development</li> </ul>
Module 3B: Individualized Intensive Interventions: Developing a Behavior Support Plan	<ul style="list-style-type: none"> <li>Introduction to the topic</li> <li>Group discussion: Changing how you view a problem</li> <li>Process of PBS overview</li> <li>Components of a behavior support plan</li> <li>Building the plan: Prevention strategies</li> <li>Building the plan: Teaching new skills</li> <li>Skill instruction throughout the day</li> <li>Responding to challenging behavior</li> <li>Effective teaming</li> <li>Developing a behavior support plan as a team</li> <li>Monitoring outcomes</li> <li>If challenging behavior returns</li> </ul>
Module 4: Leadership Strategies for Supporting Children's Social-Emotional Development	<ul style="list-style-type: none"> <li>Evidence-based practices and resources</li> <li>The pyramid approach</li> <li>Inventory of practices and activity</li> <li>What is challenging behavior?</li> <li>Role of program administrators</li> <li>Evidence-based leadership strategies</li> <li>Three levels of change</li> </ul>

In addition, there is a 1-day module on administrative supports. The training modules include speaker notes, powerpoints, handouts, video clips, activities, resources, and agendas that can be used to provide training. The training modules reflect a variety of effective practices for promoting teacher change in that they are linked to real problems that real teachers have in the classroom (Knowles, 1980); they reflect practices that are designed to be carried out and sustained over time (Garet et al., 2001); they can be used with teams of teachers and teaching staff, administrators, and support personnel (Bailey, 1989; Garland & Frank, 1997); and they include materials and processes for ensuring administrative support (Hayden, Frederick, & Smith, 2003). A program-wide approach to behavior support incorporates all of these practices related to training: getting buy-in from staff, training staff, administrators, families, and behavior support personnel together and ensuring administrative support before training.

Although it will be important to train on all levels of the pyramid, it can be overwhelming to the participants to receive training on all levels on consecutive days. We have found that it is helpful to structure the training events so that a small amount of content is trained followed by time between sessions to try things out in the classroom and reflect on current practice. One approach is to train on each level of the pyramid with time (e.g., several weeks) in between for the participants to apply some of the information that they have heard in training. When training on each level of the pyramid is separated by time, it is useful to have participants do action planning for what they are going to do in between sessions and to be prepared to report back at the subsequent sessions on what they have done, what has worked, and what additional supports they might need.

An important part of the training should be a focus on helping participants understand and “buy in” to the approach. Early childhood educators often bring to training a variety of issues that might affect their willingness to buy in to the *Teaching Pyramid*. The *Teaching Pyramid* has a primary focus on changing adult behaviors and environments and building supports for children. Often, training participants have a view of behavior that is focused more on discipline and changing the child. It will be important to help participants understand the relationships between challenging behavior and social-emotional development, environmental factors (e.g., schedules, routines, activities), and teacher prompts and feedback. This can be accomplished through showing a video and having participants reflect on what is occurring in the video, having participants reflect on strategies they have used that have been successful in supporting children’s appropriate behaviors, and having teams of teaching staff work together to identify issues in their classrooms that might be contributing to challenging behavior.

An important component of professional development on the *Teaching Pyramid* involves training teams rather than individual teachers. Teams should include teachers and other classroom staff, administrators, behavior support or mental health professionals, and families. Fixsen, Naoom, Blase, Friedman, and Wallace (2005) noted that professional development designed for teams has a number of potential advantages. First, teams can discuss concepts, skills, and problems that might arise as they begin to implement the practices (Reichle et al., 1996). Second, individuals from the same program are likely to share common curriculum materials and assessment requirements. By engaging in professional development experiences together, they are better able to integrate what they learn into their program context. Third, teams who work with the same children and families can discuss specific needs related to real people over time and across a variety of contexts (Dunlap et al., 2000). Finally, by focusing on a group of individuals from the same program or agency, professional development efforts may help sustain changes in

institutional practice over time even when staff attrition occurs (Knight, 2007; Reinke, Sprick, & Knight, 2009).

Administrators should be committed to this approach before training staff. We often provide training for leadership teams (e.g., director, professional development coordinators, behavior support personnel) before we provide training to staff. This helps build support for teachers by guiding administrators to develop procedures for supporting teachers in addressing the needs of children with the most challenging behavior and to address issues about the fit of the Pyramid Model with current program practices.

### Providing Support to Teachers in the Classroom

Joyce and Showers (2002) discussed the need for follow-up support to teachers in the classroom. This can take different forms but generally involves some type of coaching. The content of coaching and the relationship of coach to learner have varied across studies on the effects of coaching. The majority of studies on coaching use expert coaches, meaning professionals who have more experience or expertise than the trainee in the content area that is being trained (e.g., mental health consultants, behavior specialists, other teachers, administrators; P. H. Campbell & Milbourne, 2005; Kaiser, Ostrosky, & Alpert, 1993; Pianta, Mashburn, Downer, Hamre, & Justice, 2008), but data also support peer coaching (Kohler, McCollough, & Buchan, 1995). One of the approaches with data to support its effectiveness is providing teachers with data-based feedback on their own behavior (e.g., Cotnoir-Bichelma, Thompson, Mckerchar, & Haremza, 2006; Hiralall & Martens, 1998; Kaiser et al., 1993; Knight, 2009). When teachers receive this type of follow-up support, they are more likely to use the practices they have learned during training in their everyday interactions in the classroom.

In our work on professional development related to the *Teaching Pyramid* practices, we include two key components when working with teachers in the classroom: (a) the use of data-based feedback as part of the coaching process and (b) planning collaboratively with teachers on how they are going to use the *Teaching Pyramid* practices (Fox, Hemmeter, Snyder, Binder, & Clarke, 2008). We use a model of data-based feedback that is linked to teacher ratings on the TPOT. Coaches use data from the TPOT observations to provide baseline information on teaching practices for the purpose of pinpointing needs for training, technical assistance, and support. Data are shared with teachers and then an action plan is developed with the teacher using a collaborative planning process (Hemmeter, McCollum, & Hsieh, 2005). The action plan focuses on the implementation of practices that may be missing or scored as emerging on the TPOT. The following vignette provides an example of this process.

Eliza is a teacher in a public preschool classroom. She and her coach, Jessie, have reviewed Eliza's TPOT data. Eliza is implementing many of the practices on the TPOT but is not doing many of the practices related to teaching social problem solving. Eliza notes that children in her classroom depend on her to solve their problems and this is an area where she would like to focus. Eliza and Jessie develop a list of the steps that are involved in teaching social problem solving. The first steps involve preparing to teach problem solving: determining where individual children are on problem solving skills, developing or locating materials related to teaching social problem solving (e.g., solution kits, posters, puppets, social stories), developing activities for teaching, and identifying teaching

strategies. They discuss how each of these steps is going to be accomplished and what supports Eliza will need. Once the planning is complete, there are multiple steps to teaching: introducing the concept to children, providing opportunities for practice and role playing, supporting the children's use of problem solving during naturally occurring activities, commenting on children who are engaging in problem solving, and supporting children in reflecting on problem solving. Eliza suggests that they begin by teaching problem solving during small group time and that they spend part of the closing circle each day discussing problem solving. Eliza asks Jessie for some suggestions about how she can support children during ongoing activities to use the problem solving strategies. Eliza and Jessie make a checklist of the teaching steps and strategies. Jessie will use these steps as a guide when she observes Eliza in her classroom and when she meets with Eliza for subsequent coaching sessions.

An important step in the collaborative planning process involves the coach and teacher determining what supports the teacher needs to begin implementation. As the teacher begins to implement the teaching strategies, the coach is available to observe, model, provide feedback, and discuss issues that arise in implementation. There are a number of strategies that can be used in the coaching process including but not limited to modeling, role playing, videotaping and watching videos, reviewing data from the coach's observations, and problem solving around specific issues. Coaching strategies should be individualized and should be based on the skills and preferences of the person being coached. For example, a useful coaching strategy is modeling, that is, the coach models for the teacher. The strategy might be well received by some teachers and others may feel that it is too intrusive. Some teachers might like to be videotaped and to discuss the video with the coach, whereas other teachers may prefer not to be videotaped.

This approach to coaching is designed to be supportive by building on the competence, skills, and preference of the teacher and is dependent on the coach and the teacher having a positive relationship. It is important to note that coaching should not be done by someone who is responsible for evaluating the teacher because it sets up a relationship that can be threatening and counterproductive to the coaching process.

### Providing Guidance to Teachers Related to Planning and Implementing an Individualized Plan for Children With the Most Challenging Behavior

One of the advantages of the *Teaching Pyramid* is that it includes strategies for meeting the needs of all children in a preschool program. Many social-emotional curricula and approaches discuss the importance of environments in preventing challenging behavior and/or provide a structure for teaching social skills and promoting emotional competencies but do not include a component that addresses the needs of children who do not respond to these promotion and prevention practices. Given the nature of young children's challenging behavior, it is likely that many preschool teachers are going to encounter children whose behavior persists in spite of developmentally appropriate prevention and promotion practices. Teachers express frustration with these children and with the lack of support for meeting their needs (Hemmeter, Corso, & Cheatham, 2006).

Although it is beyond the scope of this article to describe the intensive, individualized approach that represents the top of the *Teaching Pyramid*, there are several key recommendations that are critical to supporting teachers in implementing the *Intensive Individualized Interventions*. First, the model is designed to have practices in place at all levels of the pyramid simultaneously. When teachers have support around children with the most persistent challenging behaviors, they have

more time and energy to also focus on promotion and prevention practices, thus addressing the needs of all children in the classroom. Second, the individualized process described earlier in this article is designed to be implemented by a team that includes the teacher as well as the family, a behavior support or mental health professional, and others who interact regularly with the target child. The process involves collecting information from a number of sources, conducting observations across settings, and generating a plan that can be implemented across the child's environments. It would be difficult for most teachers to implement this process independently. It is critical to have a behavior support or mental health consultant experienced in the behavior support planning process who can guide the team in developing an individualized plan. Third, the procedures for implementing the individualized planning process should be efficient, effective, and accessible to teachers. The procedures should be well articulated such that the teacher knows what information he or she must provide to the team, how quickly the process will be initiated, and how the process will work and have confidence that the process will work. Fourth, assisting the teacher in developing the plan is only the first step. The planning process should also involve strategies for supporting the teacher in implementing and evaluating the plan. When possible it is useful to have the person who provides coaching to the teacher (as described earlier) be involved in planning around children with the most persistent problem behavior.

## CONCLUSIONS

The *Teaching Pyramid* provides a comprehensive framework for organizing practices for promoting young children's social-emotional development and addressing challenging behavior. The implementation of the practices associated with each level of the *Teaching Pyramid* is a key component of a program-wide behavior support model in early childhood settings. The extent to which teachers can implement the *Teaching Pyramid* with fidelity will depend on the program-wide supports that are provided to teachers on an ongoing basis. In this article, we have described key components of a professional development approach to supporting teachers to use the *Teaching Pyramid*. This professional development approach reflects research that suggests that an ongoing, comprehensive, and coordinated set of training experiences is necessary to implement practices with fidelity. In our work with training teachers on the *Teaching Pyramid*, we have found that it takes extensive coaching and feedback to get teachers to fidelity (Fox et al., 2008). It is important to note that even the most effective professional development approach is unlikely to result in changed practice in the absence of administrative support and corresponding changes in policies and procedures.

The work described in this article is only the beginning of a comprehensive research agenda that is needed to ensure that the social-emotional needs and behavioral challenges of all young children can be addressed in preschool programs. The data on preschool expulsion suggest that in fact many children with behavioral challenges are asked to leave early childhood programs. The *Teaching Pyramid* provides a framework for organizing the range of evidence-based practices that are likely to be needed to address the needs of all young children, including those children with the most significant behavioral challenges. We know, based on previous research, that the practices associated with each level of the pyramid have positive impacts on children when used individually (Dunlap et al., 2006; Hemmeter, Ostrosky, & Fox, 2006); however, we do not know the effects of a model that involves the implementation of the practices across all levels

concurrently. We have presented initial data and information on training teachers to implement practices at all levels of the pyramid concurrently. The next step is to study systematically the impact of a comprehensive model of promotion, prevention, and intervention practices on overall classroom climate and the social, emotional and behavioral outcomes for all young children served in early childhood settings. Future research is needed to determine if all levels of the pyramid are necessary for addressing the social-emotional and behavioral needs of all children in a preschool classroom.

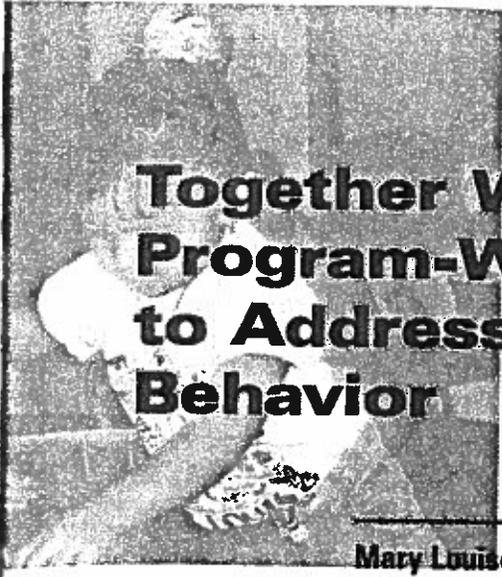
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# Together We Can! A Program-Wide Approach to Addressing Challenging Behavior

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**W**e do training on challenging behavior every year, and it is still a big problem for our program! (An administrator)

*I get so frustrated with dealing with challenging behavior. Sometimes I want to quit!* (An early childhood teacher)

*I can deal with the everyday behavior problems, but I just don't know what to do with Jeremy, whose aggressive behavior is disrupting my class every single day and is dangerous to the other children in the classroom.* (An early childhood teacher)

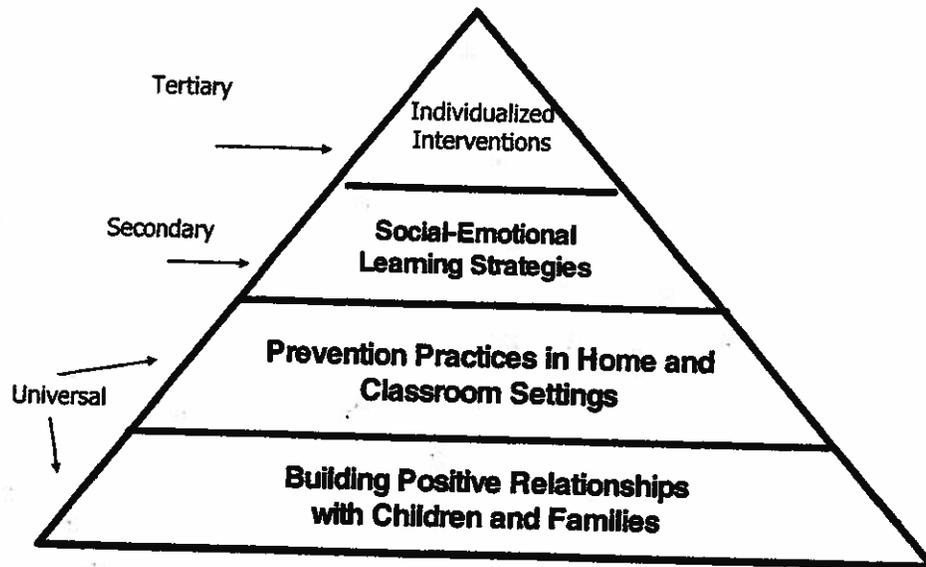
Young children's challenging behavior is a significant issue in many early childhood programs. Teachers report increasing numbers of children with challenging behavior and increasing frustration associated with dealing with challenging behavior (Hemmeter, Corso, & Cheatham, 2006). Recent studies of preschool children have found rates of reported problem behavior ranging from 9%–33% depending on the population of children being studied (Campbell, 1995; Qi & Kaiser, 2003). Children with early-appearing externalizing behaviors (e.g., tantrums, aggression toward others or self) are at-risk for both social and academic problems, including limited access to instruction and peer and teacher rejection (LaRocque, Brown, & Johnson, 2001). Without appropriate intervention during the preschool years, these children enter school at-risk for social, emotional, behavioral, and academic problems.

When children with challenging behavior do not have access to effective interventions early, the stability of problem behavior over time is well established (Campbell, 1995; Shaw, Gilliom, & Giovannelli, 2000). However, there is evidence that the interventions and supports needed during the preschool years are often not available in early childhood settings. Studies have documented the relatively low quality of group care settings and have linked the quality of those settings to poorer child outcomes related to social-emotional development (Helburn et al., 1995; National Research Council, 2001; NICHD, 1999). High-quality, developmentally appropriate environments are a critical feature of effective approaches for addressing the needs of children with challenging behavior. Further evidence for the lack of support in early childhood programs comes from a study that children in state-funded prekindergarten programs were six times more likely to be expelled from preschool than children in K-12 (Gilliam, 2005). While this rate was cut in half when the teacher had access to behavioral consultation, a majority of the teachers reported not having access to these consultants. In addition, studies have identified challenging behavior as a primary training need of early childhood educators (Buscemi, Bennett, Thomas, & Deluca, 1995; Hemmeter et al., 2006). This indicates that early childhood educators in many cases do not feel prepared to deal effectively with challenging behaviors. These findings taken together suggest that the quality and expertise needed to address the behavioral and social-emotional needs of children is often missing in early childhood programs. In order to build the capacity of programs to meet the needs of children with challenging behavior, an approach is needed that includes not only training for teachers, but also access to behavior support expertise and the provision of support from administrators and program policies.

Positive Behavior Support (PBS) was developed about 20 years ago in response to the use of aversive intervention procedures to address the challenging behavior of individuals with developmental disabilities and severe problem behavior. In the last decade, the application of the tenets and practices of PBS to the entire school population within elementary, middle, and high schools has evolved (Horner, Sugai, Todd, & Lewis-Palmer, 2005). School-wide PBS was developed as a strategy for approaching behavior from a systems perspective, in which systems and procedures are established within schools to support the promotion of children's appropriate behaviors as well as to address the needs of children with more significant behavioral issues (Freeman et al., 2006; Sugai, Sprague, Horner, & Walker, 2000).

The school-wide PBS model uses a three-tiered approach of universal, secondary, and tertiary strategies to address the behavior support needs

Figure 1  
**The Teaching Pyramid Model (adapted from Fox, et al., 2003 with permission)**



of all students in a school. Universal strategies are focused on the development of a school culture where behavior expectations are explicitly taught and promoted by all school staff. Secondary strategies are used to address the needs of students who are at-risk of developing more serious problem behavior. Finally, tertiary strategies are focused on developing individualized support for students who have persistent and severe challenging behavior (Freeman et al., 2006). The adoption of school-wide PBS has resulted in decreases in problem behavior, decreases in in-school and out-of-school suspensions, and increases in instructional time (Horner et al., 2005; Nelson, Martella, & Marchand-Martell, 2002). While the school-wide PBS model is well established, relatively little work has been done on applications of this approach in early childhood settings.

There are a number of characteristics of early childhood programs that potentially affect the translation of the school-wide PBS model for adoption within early education settings. These characteristics include the variety of service delivery systems that are involved in providing services to young children (e.g., Head Start, Public Schools, Child Care), the philosophical approaches used in early childhood settings, the age and abilities of young children, the training of teachers, and access to behavior support expertise. The purpose of this article is to describe how school-wide PBS may be applied in a manner that addresses the unique needs of early childhood programs and the young children participating in the programs. This article will describe a framework developed for early childhood programs that reflects the three-tiered model of universal,

secondary, and tertiary strategies and the implementation process for program-wide adoption of that model (i.e., program-wide PBS).

## **Program-Wide PBS: Adopting the Teaching Pyramid**

The *Teaching Pyramid* (Fox, Dunlap, Hemmeter, Joseph, & Strain, 2003) provides guidance for how to promote young children's social-emotional development and address challenging behavior. The *Teaching Pyramid* (Figure 1) includes universal promotion practices at two levels, secondary intervention practices for children at-risk, and tertiary interventions for children with persistent challenging behavior. The *Teaching Pyramid* is based on research on effective instruction for young children (National Research Council, 2001), promotion of children's social competence (Guralnick & Neville, 1997; Webster-Stratton, 1999; Hyson, 2004), and positive behavior support (Fox, Dunlap, & Cushing, 2002; Fox, Dunlap, & Powell, 2002).

As illustrated in Figure 1, the four levels of practices in the *Teaching Pyramid* are positive relationships, supportive environments, social-emotional teaching strategies, and individualized interventions. *Positive relationships* with children, families, and colleagues provide a context for supporting children's social-emotional development and addressing challenging behavior. *Supportive environments* refer to practices such as positive attention, consistent routines, clear expectations and well-designed physical spaces that promote children's engagement and success in the classroom (Strain & Hemmeter, 1999; Lawry, Danko, & Strain, 1999). Social-emotional teaching strategies are necessary to address the social, communicative, and emotional delays that often lead to challenging behavior (Webster-Stratton, 1999; Joseph & Strain, 2003). *Individualized interventions* will be needed because even when the first three levels of the *Teaching Pyramid* are in place, a small number of children are likely to continue to engage in challenging behavior. These children will need an individualized behavior support plan that is based on an understanding of their challenging behavior (Fox et al., 2002).

## **Strategies for Program-Wide Implementation of the Teaching Pyramid**

Program-wide adoption of the *Teaching Pyramid* (i.e., program-wide PBS) includes a number of steps that are described in the following pages and summarized in Table 1. We provide an illustration of each step by describing the program-wide PBS implementation efforts of the

Table 1  
**Steps to Implementing a Program-Wide Model**

1. Establish a leadership team and develop goals for the plan
2. Develop a plan for program-wide adoption
  - a. Develop a plan for involving families
  - b. Develop a plan for getting staff buy-in
  - c. Develop program-wide expectations
  - d. Develop strategies for teaching and acknowledging the expectations
  - e. Develop a process for addressing ongoing problem behavior
3. Develop a professional development plan
4. Develop and implement a plan for monitoring outcomes

Valeska Hinton Early Childhood Education Center (VHECEC). VHECEC is a NAEYC-accredited, public school program that serves 400 children in preschool through first grade. This center includes public school, Special Education, Head Start, State Block Grant Programs (Pre-K At-Risk, Family Education), Title I, Early Head Start, Even Start, and GED programs. As they were developing their program-wide initiative, they selected the slogan "Together We Can" to refer to their approach.

### **Establish a Program-Wide PBS Leadership Team and Develop Goals**

Program-wide PBS begins with establishing a leadership team that includes staff and administrators, families, and other professionals who might provide support to the program around children's challenging behavior or mental health. The team should include an administrator who has the authority to make decisions about policies and procedures, curriculum changes, and professional development activities. Programs should include staff who are not directly involved in classrooms but who interact with children on a regular basis, such as bus drivers, custodians, or cooks. One of the first tasks for the leadership team is to establish goals for program-wide PBS based on data on the needs of the children and staff in their program.

*VHECEC administrators discussed the growing need to support children, teachers and families in the areas of social and emotional skill development and challenging behavior. Their staff survey revealed the most-requested training need was how to address challenging behaviors. When children exhibited persistent challenging behaviors, staff members often felt unsupported, frustrated, and overwhelmed.*

**Table 2**  
**Taking it Home: Ideas for Promoting Family Involvement Related to Program-Wide Behavior Support**

- Introduce the adoption of the behavior support plan in a family newsletter
- Host an event where the plan is described and children demonstrate the expectations
- Provide families with tips for teaching the expectations at home
- Send home "Look at Me" notes that provide a photo of the child engaging in the expectation
- Provide families with lists of children's books on topics related to social-emotional development
- Provide families with ways to promote social-emotional development at home
- Provide families with "homework" assignments to practice social skills that are fun for the family to do with their child (e.g., "give each person in your family 3 compliments" or "ask each family member to identify a best friend and what they like about that person")
- Host program celebrations of success and invite family members to attend
- Display the expectations in the entryway of your center including pictures of children and staff demonstrating the expectations and child generated dictations of examples of the expectations
- Develop an overview of the process that will be used to develop behavior support plans for children. Include a list of frequently asked questions, a description of what behavior support means, how families will be involved, and quotes from families who have previously been involved. Share this with all families at an initial parent conference

*The administrative team wanted to develop a plan for addressing social and emotional development and challenging behavior that would focus on the following goals: increasing time for instruction, helping staff feel supported, providing staff with effective strategies, and involving parents. After investigating a variety of approaches, they found that the Teaching Pyramid represented an approach that was consistent with their program philosophy and included all the criteria they were looking for, including instruction and promotion of positive social behavior, prevention of challenging behavior, and the provision of individual supports for children with persistent challenging behavior.*

*A Leadership Team was established by asking staff to sign up if they were interested in being on the team. The staff that volunteered to serve on the team included teachers, classroom assistants, family services workers, after school care providers, administrators, and other non-classroom staff. The team was facilitated by the Professional Development Coordinator.*

## Develop a Program-Wide PBS Implementation Plan

The first major task for the Leadership Team is to develop a program-wide implementation plan. The plan should address: (1) the involvement of families in all phases of the initiative; (2) staff buy in for the plan; (3) identification of program-wide expectations for children's behavior; (4) strategies for teaching and acknowledging the expectations; and (5) a process for developing individualized behavior support plans for children with ongoing challenging behavior.

**Develop a Plan for Involving Families.** Families should be involved in the development, implementation, and evaluation of the plan. Families can serve on the Leadership Team, or the Leadership Team can meet with families on a regular basis to get their input into the plan. It will be important for the team to hear from families about their concerns about children's behavior, the types of information they would like to receive, how they would like to be involved in addressing children's challenging behavior, and the format and strategies that would be most useful for sharing information with families. Ideas for involving families are included in Table 2.

*At Valeska Hinton, families were kept informed and invited to participate in the development of the program-wide PBS implementation plan. Monthly parent meetings included updates about the process and encouraged input and feedback. The program's existing Parent Leadership Team was asked to participate in meetings to provide input and feedback into the plan. The school's ongoing structures for involving families (e.g., parent teacher conferences, home visits, informal interactions at drop off and pickup) were used as opportunities for sharing information with families about social-emotional development, strategies for supporting children's behavior, and the program-wide plan. For example, one set of parent-teacher conferences was used for sharing with the families the program wide expectations and how they could be supported at home. Parent workshops to introduce the plan were planned.*

**Develop a Plan for Getting Staff Buy-In.** It will be important to have buy-in from the majority of staff prior to implementing program-wide PBS. The success of a program-wide approach will be in part dependent on the extent to which the plan is implemented consistently across all staff. There are several ways to establish buy-in from staff including inviting them to serve on the planning team,

*It will be important to have buy-in from the majority of staff prior to implementing program-wide PBS*

**Table 3  
Together We Can! Behavior Expectations for Adults and Children  
in Our School**

Expectation	Playground	Hall	Classroom	Bus
Be respectful	Take care of each other Take turns Take care of our playground	Use inside voices Stay together	Share Be fair Listen to others Care about others' feelings	Follow directions Stay in your own space Take care of the bus
Be safe	Follow playground rules Play safely Play where you can see your teacher	Use helping hands and walking feet Stay with your teacher Make sure the teacher knows where you are	Use walking feet Play safely Follow directions Keep our room clean	Stay with your teachers Stay seated When buses are moving – stop, look, and listen Ask a grown-up for help
Be a team player	Share outdoor toys Help park the bikes Work it out with words	Stay with the group Help each other	Share ideas Help each other Work it out with words	Help others Stay with the group

holding focus groups with small groups of staff to solicit their input and asking them to sign a letter of commitment. Most schools with successful program-wide initiatives require teachers to sign a letter of commitment or in some other way indicate their commitment to the initiative prior to the plan being implemented in the school.

*While Valeska Hinton did not have staff sign a letter of commitment, they implemented several steps to ensure staff buy-in. They invited volunteers to serve on the planning committee. When 20 staff members volunteered, all of them were included on the planning team. As each step of the plan was developed, the team shared information with staff throughout the building and provided opportunities for*

*discussion and feedback at ongoing staff meetings. At critical points during the planning, the team members individually talked with staff to get input or feedback.*

**Develop Program-Wide Expectations.** A key step in the development of program-wide PBS will be the identification of expectations for

*Behavior expectations serve two important purposes: providing staff, children, and families with a common language built around supporting children's social skills and appropriate behaviors, and providing a consistent message to children about their behavior.*

children's behavior. Behavior expectations serve two important purposes: providing staff, children, and families with a common language built around supporting children's social skills and appropriate behaviors, and providing a consistent message to children about their behavior. This shifts the focus from challenging behavior to supporting children's appropriate behavior and social skills. Further, by having all adults focused on common expectations for children's behavior, it increases the frequency with which children receive consistent input and positive feedback about their behavior. Table 3 provides

a sample matrix of how expectations can be addressed across settings within the school.

*After many hours of engaging debates, the VHECEC planning team came to consensus on the program-wide behavior expectations: "Children and adults at VHECEC are expected to be respectful, be safe, and be team players." An important lesson learned through this process was the need to establish expectations not just for children's behavior but also for adults' behavior. Thus, these expectations reflect a commitment to holding staff accountable for demonstrating these same behaviors in their interactions with children, colleagues, and families.*

**Develop Strategies for Teaching and Acknowledging the Expectations.** Once the expectations have been developed, the team develops a process for teaching and acknowledging the expectations. This process involves developing a timeline for teaching the expectations across settings within the school, strategies for teaching the expectations, and strategies for acknowledging the expectations in individual classrooms as well as program-wide. A program-wide plan for teaching and acknowledging the expectations helps to ensure that children are learning and being supported in their use of the expectations across all

the settings and adults with whom they interact each day. The expectations can be taught using a variety of teaching strategies, including discussion, role play, modeling, and feedback in context. The expectations can be acknowledged informally through positive feedback from adults and more formally through bulletin boards, photographs, and recognition in public areas of the school.

*The Together We Can team developed a list of strategies for teaching the expectations and a plan for how the whole school could focus on one expectation at the same time, integrating the expectations into their use of their social skills curriculum, modeling and role-playing expectations, photos of students demonstrating the expectations, and many more ways. Acknowledgement strategies were developed to recognize prosocial behavior. These strategies included verbal descriptive feedback, photos of the children engaged in an expectation displayed on a bulletin board in the center court of the building, and a book developed by a class that included pictures and descriptions of children engaging in the expectations.*

#### **Develop a Process for Addressing Ongoing Problem Behavior.**

While the above promotion and prevention activities are effective for meeting the social and emotional needs of most children, some children will need individualized intervention plans. The program-wide plan will include the development of a process for addressing the needs of those children with persistent behavior. A staff person is identified who has the responsibility of facilitating this process with teams around individual children.

*During the second year of Together We Can, team members focused on the development of a plan for supporting children with the most significant problem behaviors. A process was developed for addressing the needs of children whose behavior was dangerous, disruptive, and persistent. Staff members were identified as behavior support facilitators and were trained in conducting observations, gathering information, and writing a behavior support plan for a child.*

#### **Design a Professional Development Plan**

In order to implement program-wide PBS, a plan should be developed for training and supporting the staff on the model. Professional development for program staff should include an overview training that provides general information on the *Teaching Pyramid* and the processes that have been developed for supporting children with challenging behaviors. In addition, individualized and ongoing support should be planned for classroom teams based on their skills and needs related to addressing

challenging behavior. These supports should include coaching in the classroom. Staff also should be trained in how to complete observations and participate in the development of individualized plans for children. Provisions should be made for training, orienting, and supporting new staff. Finally, plans should be made for how teachers and other staff will be recognized for their work related to supporting children's behavior.

*As part of the Together We Can plan, several professional development activities were implemented. A series of inservice activities for all staff members were conducted on each level of the Teaching Pyramid (Fox et al., 2003). Administrators made plans for how they would orient new staff to the model. The professional development coordinator and lead teacher made themselves available to support teachers in their classrooms as the teachers implemented these strategies. Specific staff were identified and trained in how to facilitate the development of behavior support plans for individual children.*

## **Develop a Plan for Monitoring Implementation and Outcomes of the Plan**

The development of a program-wide PBS plan should be based on data on the needs of the children and staff in the program. These needs can be translated into goals or outcomes for the program-wide plan. It will be important to develop a plan for monitoring both the implementation and the outcomes of the plan. Regular data should be collected (e.g., incidences of problem behavior, requests from teachers for help around behavior) and used to revise the plan to ensure that important outcomes are being met.

*Now that the plan components have been developed, the leadership meets to review the plan; arrange proactive education activities for staff, students, and families; advise the program's administrative team; and share updates at Staff Meetings. Outcomes of the PBS approach have included: program-wide agreement and focus on positive behavior support, an increased feeling of unity among staff members, shared language surrounding children's behaviors, and a reduction in children being "sent (taken) to the office".*

## **Lessons Learned from Implementation of Program-Wide PBS**

Program-wide PBS offers a systemic approach for addressing many of the key issues associated with challenging behavior in early childhood

settings. Program-wide PBS not only provides a plan for training staff but also includes a focus on developing policies and procedures that are accessible and effective for supporting staff in addressing young children's social-emotional development and challenging behavior. It makes behavior support a "program-wide" issue and shifts the responsibility to the program rather than resting on the teacher. While program-wide PBS is a promising practice, it is difficult to implement. It is comprehensive and takes a long-term commitment. Based on our experiences with a variety of programs, we offer the following recommendations for implementing program-wide PBS in early childhood settings.

The first set of recommendations has to do with teaming and leadership. It is important to address issues related to school climate directly. Otherwise, it may affect the staff's ability to work together on this important project. Implement the plan using a team approach that is not dependent on any one staff member so that there is continued support when there are staff changes. Have a plan for orienting new staff, embedding questions about behavior support into interviews of potential staff, and supporting new staff in implementing the plan.

Ongoing training and support for staff over time is important. Dealing with challenging behaviors can be "challenging" for adults! Staff will need support in the form of training, consultation, problem solving, and acknowledgement. This support should be individualized, immediate, and effective. Remember to include all program staff in your plan. Bus drivers, cooks, custodians, related services staff, and administrators interact with children every day and are often faced with challenging behavior. Be sure that they too have the training and support to be effective in their interactions with children.

Include families from the beginning in all aspects of the planning and implementation. Families may need an orientation that includes a rationale for why this plan is needed in the first place. Make the PBS plan part of your parent handbook, parent orientation, home visit discussions, parent-teacher conferences, and other family activities. Post information about the plan and children's involvement in areas frequented by family members.

It is important to recognize the need for developing a plan that is both comprehensive and feasible. Avoid the temptation to focus on the few children in a program with the most problematic behaviors. Rather, focus on building a plan that promotes appropriate social skills and emotional competencies for all children, prevents challenging behavior, and finally, addresses challenging behaviors when they persist despite comprehensive promotion and prevention strategies. Finally, programs should realize that behavior support is an evolving and ongoing process.

In order to ensure that the plan is effective over time, a team will need to meet regularly to review program data and staff input, make changes in the plan as needed, and celebrate successes.

#### Note

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## **A Program-Wide Model of Positive Behavior Support in Early Childhood Settings**

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## INNOVATIVE PRACTICES ARTICLE

# *A Program-Wide Model of Positive Behavior Support in Early Childhood Settings*

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*An increasing need exists in the field of early intervention for effective approaches to address challenging behavior in early childhood settings. This need is driven by the growing number of preschool children reported to have challenging behavior and the increasing knowledge base about the long-term outcomes for children who engage in problem behavior during the early childhood years. Teachers report that challenging behavior is one of their highest priority training needs. A promising approach to addressing challenging behavior in early childhood settings is a program-wide system of positive behavior support (PBS). While a program-wide PBS model has been clearly articulated for use in elementary and secondary schools, relatively little attention has been given to program-wide models of behavior support in early childhood programs. The purpose of this article is to describe the essential elements of a program-wide model of positive behavior support that reflects an understanding of the needs of young children and the unique characteristics of early childhood settings (e.g., Head Start, public preschool, child care). The article also will provide an illustration of the adoption of the program-wide model by a rural Head Start program.*

Awareness has increased among educators, parents, and program administrators about the growing number of young children who are beginning school without the emotional, social, behavioral, and academic skills that are necessary for school and life success. While the significant rates at which emotional and behavior problems occur in young children are now well documented, specific estimates of prevalence rates vary depending

on the sample and criteria used. In a review of prevalence studies, Campbell (1995) estimated that 10% to 15% of young children have mild to moderate behavior problems. Lavigne et al. (1996) found 21% of preschool children met criteria for a diagnosable disorder, with 9% classified as severe. Data from the Early Childhood Longitudinal Study revealed that 10% of kindergarteners arrive at school with problematic behavior (West,

Denton, & Germino-Hausken, 2000). Children living in poverty appear to be especially vulnerable, exhibiting rates that are higher than the general population (Qi & Kaiser, 2003).

The alarming frequency with which young children are entering school displaying severe problem behavior has resulted in an interest in providing early intervention to children during the toddler and preschool years (Department of Health and Human Services, 2000; Shonkoff & Phillips, 2000; Simpson, Jivanjee, Koroloff, Doerfler, & Garcia, 2001). The settings in which this effort is likely to occur are community-based early childhood programs such as Head Start, child care, and public preschool programs. Many early childhood programs, however, feel unequipped to meet the needs of children who are emotionally delayed or have problem behavior (Kaufmann & Wischmann, 1999). Increasingly, children with challenging behavior are being expelled from early childhood programs (Gilliam, 2005; Raver & Knitzer, 2002). A recent study found that children are being expelled from state preschool programs at three times the rate of students in kindergarten through 12<sup>th</sup> grade programs (Gilliam, 2005). Teachers report that disruptive behavior is one of the single greatest challenges they face in providing a quality program and that there seems to be an increasing number of children who present with these problems (Arnold, McWilliams, & Arnold, 1998). A recent survey of over 500 early childhood educators found that their highest-rated training need was addressing challenging behavior (Hemmeter, Corso, & Cheatham, 2006).

The purpose of this article is to describe a promising model of program practices for addressing the needs of young children with challenging behavior within early care and education programs. The information presented in this article is based on our experiences implementing this model in a variety of early childhood settings including public schools, Head Start, and child care. In addition to providing an overview of the essential elements of this model, we provide

a more thorough description of implementation in a rural Head Start program including some evaluation data indicating potential effectiveness. The model was influenced by work on an increasingly widespread systems approach for preventing and addressing challenging behavior within school programs. School-wide positive behavior support (SWPBS) involves the systemic adoption of program practices that prevent and address challenging behavior (Dwyer, Osher, & Warger, 1998; Horner & Sugai, 2000). The SWPBS model uses a three-tiered approach adapted from a public health model of prevention practices (Horner, Sugai, Todd, & Lewis-Palmer, 2005). The three tiers include primary prevention practices to ensure that all students understand behavior expectations and are supported in their appropriate behavior, secondary prevention practices to focus on students at risk for problem behavior, and tertiary strategies to provide individualized interventions for students with intense behavior support needs.

The SWPBS model involves the promotion of appropriate behavior, prevention of problem behavior, use of data to understand issues related to problem behavior, adoption of evidence-based intervention practices, and a focus on the instruction of social skills (Lewis & Sugai, 1999; Sugai, Sprague, Horner, & Walker, 2000; Taylor-Greene et al., 1997). Demonstrations and evaluations of the SWPBS model in over 600 schools across the nation have resulted in promising outcomes. The implementation of SWPBS has resulted in decreases in incidences of problem behavior (Lewis, Sugai, & Colvin, 1998; Sadler, 2000; Turnbull et al., 2002); reduction in office referrals for problem behavior (Lohrmann-O'Rourke et al., 2000; Nakasato, 2000; Nelson, Martella, & Martella, 2002; Sadler, 2000; Taylor-Greene et al., 1997; Taylor-Greene & Kartub, 2000; Turnbull et al., 2002); reduction of in-school and out-of-school suspensions (Scott, 2001; Turnbull et al., 2002); reduction in school expulsions (Sadler, 2000), and a relationship to increases in the achievement of academic outcomes (Horner et al., 2005).

In schools that have adopted SWPBS, several key elements are included. The school defines their behavior expectations and all school staff use this common language in teaching students the expectations as a primary prevention practice. In addition, a school-wide system of recognition and rewards is established to provide students with feedback and encouragement about their engagement in the expectations. At the secondary level, a menu of supports for students who are at risk for problem behavior is developed. These secondary supports might include social skills training, counseling, check-in/check-out systems, daily report cards and other evidence-based interventions that have been shown to be successful in addressing the needs of students with histories of problem behavior. Students at the tertiary level (i.e., students with persistent challenging behavior) receive an individualized behavior support plan that is developed by a team after conducting a functional assessment.

The SWPBS model is aimed at ensuring that an *effective host environment* is created to adopt and sustain the use of evidence-based practices (Sugai, Sprague, et al., 2000; Sugai & Horner, 2002). Effective host environments are ones that have policies, manuals, structures, and routines to implement and sustain innovations. The following steps are used to ensure the system-wide adoption of the model: a school-wide leadership team is formed to guide the initiative; the leadership team secures long term staff commitment to the model; a data-based action plan is developed that outlines the practices that need to be adopted, maintained, or improved; needs and supports are developed to ensure high fidelity of implementation; and data-based monitoring is used to assess program progress (Sugai & Horner).

While the work on school-wide applications of behavior support provides a framework that can be used in conceptualizing a program-wide model in early childhood settings, there are characteristics of early care and education settings that should be considered when designing a model for use in

these settings (Fox & Little, 2001). These characteristics relate to the structure and philosophy of early childhood settings, the resources and expertise available in early childhood settings, the developmental and behavioral needs of young children, and the evidence-based practices that are used to promote social and emotional development and address the challenging behavior of young children.

Young children are served in a variety of settings including Head Start, child care, and public schools. These settings vary in the training requirements of staff, staff-child ratios, hours of operation, availability of behavioral expertise, and accreditation or performance standards. For example, preschool teachers in public schools generally have a college degree and a teaching certificate (Clifford et al., 2005), while teachers in childcare programs often are required only to have a high school degree and limited training in working with young children. Preschool classrooms within public schools might have access to a behavior specialist, and Head Start programs generally have funding for behavior consultation; however, many child care programs have neither the expertise around behavior nor the money to hire a behavioral consultant. While consultants might be available to public preschools and Head Start programs, there often is a shortage of mental health or behavior specialists with expertise in working with young children and working in early childhood settings. A second major issue that impacts what a program-wide model would look like in an early childhood setting is the developmental ages and needs of the children. The cognitive abilities of young children and the developmental nature of problem behavior in young children should be considered when designing a program-wide model. For example, a token system that works with older children to support prosocial behaviors is likely to be ineffective for young children given their cognitive and social developmental levels and might not be consistent with recommended practice related to effective practices for young children.

Finally, the application of a program-wide PBS model in early childhood programs should be focused on the classroom adoption of prevention and intervention strategies that are effective in promoting young children's social and emotional development and addressing challenging behavior (Fox, Dunlap, Hemmeter, Joseph, & Strain, 2003). These practices have been described as the Teaching Pyramid model (Fox et al., 2003) and are based on the public health model of prevention (Gordon, 1983, 1987; Simeonsson, 1991). The Teaching Pyramid includes primary promotion practices of building positive adult-child relationships and the development of supportive classroom environments (e.g., routines, transitions, engaging activities, clear expectations), secondary practices of providing intentional and systematic instruction of social skills and emotional competencies (e.g., friendship skills, problem solving, communicating emotions, anger management) to children who are at risk for developing severe problem behavior, and at the tertiary level the provision of individualized interventions for children with persistent challenging behavior. More information on training materials, What Works Briefs, and teacher materials related to the Teaching Pyramid model is shown in Table 1.

### **IMPLEMENTING AN EARLY CHILDHOOD PROGRAM-WIDE MODEL OF POSITIVE BEHAVIOR SUPPORT**

The rapid expansion of SWPBS has inspired many programs to adapt the model for early childhood settings and begin implementation. We have worked with a variety of programs to translate the school-wide approach to their unique settings. These efforts have occurred within community child care programs, Head Start programs and classrooms, and public preschool programs. In this section, we describe the essential elements for developing a program-wide model and then provide an example of a program that developed and implemented a model

that included these elements. While each of these elements is important, the order in which they are implemented might vary based on program resources and other program priorities.

#### ***Establish a Leadership Team***

A leadership team should be established that has representatives from the staff and administration of the program, families, and other professionals who provide support to the program around children's challenging behavior or mental health. This team should include members who have the authority to make decisions about policies and procedures, curriculum changes, and professional development activities. Active participation from the administration is critical. The leadership team develops an implementation plan for the program-wide initiative and guides ongoing implementation and evaluation of the model. Leadership teams are encouraged to meet on a monthly basis to review implementation progress and program data, identify program and teacher needs, and determine the next steps for program-wide implementation (e.g., professional development activities, family involvement, support for individual children or teachers).

An essential member of the leadership team is a person with expertise in behavior support who can guide the team in developing a plan for addressing the needs of children with behavior challenges and to facilitate the development of individualized behavior support plans for children at the tertiary level. In addition, the person on the leadership team who has behavior expertise will need to be available to coach and assist teachers in the implementation of children's individualized behavior support plans. In Head Start programs, this person might be a mental health consultant or a disability coordinator. In a public school program, this might be a behavior specialist or a curriculum specialist. Our experiences suggest that this person is critical to the success of the initiative. If this type of person does not exist, programs should identify a person who

**Table 1**

*Resources for Training Program Staff on Promoting Young Children's Social and Emotional Competence and Addressing Challenging Behavior*

Level of the Teaching Pyramid	Material	Source
Building Relationships with Children, Families and Colleagues	CSEFEL Training Module 1 What Works Briefs #8, #12, #16, #17, #20 Positive Beginnings - Modules	<a href="http://www.vanderbilt.edu/csefel/">www.vanderbilt.edu/csefel/</a> <a href="http://www.vanderbilt.edu/csefel/">www.vanderbilt.edu/csefel/</a> <a href="http://pbs.fsu.edu/PBS.html">http://pbs.fsu.edu/PBS.html</a>
Creating Supportive Environments	CSEFEL Training Module 1 What Works Briefs #3, #4, #5, #6, #15, #17 Creating Teaching Tools	<a href="http://www.vanderbilt.edu/csefel/">www.vanderbilt.edu/csefel/</a> <a href="http://www.vanderbilt.edu/csefel/">www.vanderbilt.edu/csefel/</a> <a href="http://www.challengingbehavior.org">www.challengingbehavior.org</a>
Social and Emotional Teaching Strategies	CSEFEL Training Module 2 What Works Briefs #7, #8, #18, #19, #21 Scripted Stories Creating Teaching Tools Positive Beginnings - Modules	<a href="http://www.vanderbilt.edu/csefel/">www.vanderbilt.edu/csefel/</a> <a href="http://www.vanderbilt.edu/csefel/">www.vanderbilt.edu/csefel/</a> <a href="http://www.vanderbilt.edu/csefel/">www.vanderbilt.edu/csefel/</a> <a href="http://www.challengingbehavior.org">www.challengingbehavior.org</a> <a href="http://pbs.fsu.edu/PBS.html">http://pbs.fsu.edu/PBS.html</a>
Individualized Interventions	CSEFEL Training Modules 3A and 3B What Works Briefs #9, #10, #11 PBS Case Study Creating Teaching Tools Positive Beginnings - Modules	<a href="http://www.vanderbilt.edu/csefel/">www.vanderbilt.edu/csefel/</a> <a href="http://www.vanderbilt.edu/csefel/">www.vanderbilt.edu/csefel/</a> <a href="http://www.challengingbehavior.org">www.challengingbehavior.org</a> <a href="http://www.challengingbehavior.org">www.challengingbehavior.org</a> <a href="http://pbs.fsu.edu/PBS.html">http://pbs.fsu.edu/PBS.html</a>

*Note.* CSEFEL = Center on the Social and Emotional Foundations for Early Learning: Training modules offer a complete training package for providing instruction on each level of the Teaching Pyramid. The modules include speaker notes, Power Point® slides, handouts, case study activities, and video examples; What Works Briefs: Documents that summarize the implementation of evidence-based practices for promoting young children's social competence and addressing challenging behavior. Each document provides a classroom illustration, resources for implementation, and citations for the research that supports the practice; Positive Beginnings: A set of six instructional modules on the process of positive behavior support for inservice and preservice training of early intervention and early education personnel; PBS Case Study: The process, tools, forms and background information needed to implement an individualized PBS process with a child with persistent problem behavior are provided; Creating Teaching Tools for Young Children with Challenging Behavior: Web-based resources that assist teachers in developing materials to support children's engagement in classroom activities, including a routine-guide with suggestions for strategies to use within common preschool activities and product files of visuals and other materials that teachers will find useful.

can be trained in these skills and who will be given the time to support the staff as the plan is being implemented. Once a leadership team is identified, the team is charged with developing a program-wide behavior support implementation plan that includes the components described below.

### **Develop a Program-Wide PBS Implementation Plan**

The following steps are designed to increase the likelihood that program-wide adoption and implementation will occur by ensuring that staff are committed to the process and have the training needed to implement evidence-based practices, and that there are systems within the program that are support-

ive of teachers and are effective in addressing problem behavior.

*Get commitment from staff.* In school-wide behavior support, commitment from at least 80% of program staff is required (Horner & Sugai, 2000). Commitment is important to ensure program-wide implementation of the model. Leadership teams should be encouraged to design strategies to establish buy-in and develop a process for obtaining formal commitment from program staff. All staff in the program should be involved, including classroom staff, administrators, and other support staff (e.g., secretaries, custodians, kitchen staff). The leadership team can develop a short letter of commitment that staff are asked to sign.

The commitment form should include a description of staff commitments and a description of what the program will do to support staff in their work with children with challenging behavior.

*Plan for family involvement.* The leadership team should ensure that families are involved in the development of the implementation plan and that family involvement is a critical feature of all components of the initiative. The leadership team should develop strategies for how to (a) provide information to families, (b) create opportunities for training and supporting families, (c) develop a team-based process that includes family members as integral members when addressing an individual child's problem behavior, and (d) provide opportunities for families to give feedback to the program about the program-wide initiative.

*Identify program-wide expectations.* A critical element of the school-wide behavior support model is the identification of school-wide expectations for children's behavior that create a focus on teaching positive, prosocial behaviors and preventing problem behaviors (Horner & Sugai, 2000; Lohrmann-O'Rourke et al., 2000; Taylor-Greene & Kartub, 2000). The identification and implementation of program-wide expectations by all staff are likely to increase the frequency with which children get input and positive feedback on their social behaviors across multiple settings in the program. Moreover, the adoption of program-wide expectations give all program staff a shared language for guiding children within their activities and social interactions. Early childhood programs might choose to generate, based on their values as a program, a limited set of expectations that all children, given their developmental ages, can learn. These expectations can then be posted throughout the program using pictures and icons so that children and staff can begin to see these as a core part of their program.

*Develop strategies for teaching and acknowledging the expectations.* Once expectations are identified, a systematic plan for teaching and acknowledging the expectations

should be developed. It is important that children learn about the expectations within meaningful contexts across multiple program environments (e.g., classroom, bathroom, hallway, bus, playground), which means that all staff should be focusing on the same expectations. Programs can develop strategies, activities, and a schedule for teaching the expectations. A range of strategies including roleplaying, modeling, discussion, practice, feedback in context, and reflection, and a variety of materials including books, puppets, social stories, and games can be used to teach the expectations. In addition, programs should be intentional about identifying strategies for acknowledging children's behaviors that are consistent with the expectations. This can be done in a variety of ways. A bulletin board in a visible place in the center can highlight examples of children who have followed the expectations with pictures, words, and quotes. As children engage in positive examples of the expectations, teachers can write the example on a cutout of a hand and hang the hand on the wall outside the classroom. Eventually, the hands begin connecting with hands from other classrooms so that hands are connected around the program. Classrooms can make charts that describe, in the children's words, what they have done to demonstrate the expectations. Children can be encouraged to give examples of what their friends have done and these can be written on chart paper. In addition to supporting children's prosocial behaviors, these strategies begin to build a sense of community throughout the school or program. These strategies are used in combination with the ongoing comments and verbal acknowledgements that teachers and staff throughout the program are saying to children as the children engage in the expectations.

*Develop processes for addressing problem behavior.* The program-wide implementation plan should include a process for how the program will respond to problem behavior. This should include a plan for responding to short-term crisis situations (e.g., a child is "out of control" in a classroom) and

addressing the needs of individual children with ongoing, persistent problem behavior. This plan should describe (a) what teachers would do in each situation in terms of documentation that is needed, (b) the staff responsible for responding to teacher requests, and (c) a set of strategies for addressing the situation. For example, the program-wide plan should outline the process that will be used when a child needs an individualized behavior support plan. It would specify how the referral is made, to whom it is made, what data should be collected prior to making the referral, who is responsible for convening a team meeting, and who will provide support to the classroom staff in implementing the plan. In our experiences, many early childhood programs do not have processes for addressing challenging behavior but simply respond to each situation in ways that often are not systematic or successful. In these cases, teachers report not feeling supported, not knowing how to get help, and feeling frustrated not only with the child but also with the lack of support (Quesenberry & Hemmeter, 2005). Administrators often report frustration because of the frequency with which they are called to “help out” in a classroom or to take a child out of the classroom when things are “out of control” (Quesenberry & Hemmeter, 2005). Having a well-articulated plan for addressing challenging behavior will increase the likelihood that effective supports will be accessible to teachers as needed.

*Develop a professional development plan.* The program-wide implementation plan should include strategies for ensuring that all staff have the training needed to effectively implement the initiative and ensure that the Teaching Pyramid practices are in place in all classrooms. On a basic level, all staff should have training related to the Teaching Pyramid framework for promoting social and emotional development and addressing challenging behavior (Fox et al., 2003). In addition, staff need training in the processes that will be used for addressing persistently challenging behavior (e.g., training in individualized positive behavior sup-

port). Finally, training related to teaching the expectations will be necessary to ensure all staff (e.g., teachers, teaching assistants, administrators, custodians, kitchen staff, bus drivers) are supporting children around the expectations. Training materials on the Teaching Pyramid that might serve as a resource in the application of the model are described in Table 1. The professional development plan should be implemented by professionals who are knowledgeable about early childhood development, the promotion of young children’s social development, and the process of positive behavior support. Those professionals might be curriculum specialists, behavior therapists, mental health consultants, or other program resource personnel.

*Using data based decision making.* An important activity of the leadership team will be to use data for planning and decision making (Horner, Sugai, & Todd, 2001). In school-wide models, “office discipline referrals” are used as the primary measure of the effectiveness of the school-wide plan for reducing discipline problems and for providing the leadership team with data on the pattern of discipline problems by providing information on the when, where, and what of discipline problems. Office discipline referrals were selected as a measure of effectiveness in part because it is a common metric used in schools. This measure, however, does not work well in early childhood settings because it is not a commonly used measure and it is not a common practice even when a child is engaging in ongoing, persistent behavior.

Figure 1 provides a sample Behavior Incident Report that some programs have adopted to track the frequency and type of challenging behavior in early childhood programs. The Behavior Incident Report offers a measure for monitoring program-wide incidents of problem behavior and includes data that can be used by the leadership team to identify settings, activities, and times when problem behavior is most likely to occur. These data can be used to document the reduction of behavior incidents over time, and information on variables that

Behavior Incident Report																				
Child Initials: _____	Referring Staff: _____	Program: _____																		
Date: _____	Time of occurrence: _____																			
<b>Problem Behavior(s): (circle the most intrusive)</b> <table border="0"> <tr> <td>1. Aggression</td> <td>5. Inappropriate language</td> <td>9. Running away</td> </tr> <tr> <td>2. Lying</td> <td>6. Disruption</td> <td>10. Property damage</td> </tr> <tr> <td>3. Self-injury</td> <td>7. Non-compliance</td> <td>11. Unsafe behaviors</td> </tr> <tr> <td>4. Stereotypic/self-stimulatory behavior</td> <td>8. Teasing</td> <td>12. Other: _____</td> </tr> </table>			1. Aggression	5. Inappropriate language	9. Running away	2. Lying	6. Disruption	10. Property damage	3. Self-injury	7. Non-compliance	11. Unsafe behaviors	4. Stereotypic/self-stimulatory behavior	8. Teasing	12. Other: _____						
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<b>Location of Incident: (circle one)</b> <table border="0"> <tr> <td>1. Classroom</td> <td>4. Hallway/stairwell</td> <td>7. Bus load/unload</td> </tr> <tr> <td>2. Gym/playground</td> <td>5. Bathroom</td> <td>8. Library</td> </tr> <tr> <td>3. Field trip</td> <td>6. Cafeteria</td> <td>9. Other: _____</td> </tr> </table>			1. Classroom	4. Hallway/stairwell	7. Bus load/unload	2. Gym/playground	5. Bathroom	8. Library	3. Field trip	6. Cafeteria	9. Other: _____									
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<b>Others Involved: (circle all that apply)</b> <table border="0"> <tr> <td>1. None</td> <td>4. Parent</td> <td>7. Unknown</td> </tr> <tr> <td>2. Staff</td> <td>5. Substitute</td> <td>8. Other: _____</td> </tr> <tr> <td>3. Peer(s)</td> <td>6. Teacher</td> <td></td> </tr> </table>			1. None	4. Parent	7. Unknown	2. Staff	5. Substitute	8. Other: _____	3. Peer(s)	6. Teacher										
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3. Peer(s)	6. Teacher																			
<b>Possible Motivation: (circle one)</b> <table border="0"> <tr> <td>1. Avoid task or demand</td> <td>4. Obtain desired item</td> <td>7. Gain adult attention</td> </tr> <tr> <td>2. Avoid peers</td> <td>5. Obtain desired activity</td> <td>8. Don't know</td> </tr> <tr> <td>3. avoid adult(s)</td> <td>6. Gain peer attention</td> <td>9. Other: _____</td> </tr> </table>			1. Avoid task or demand	4. Obtain desired item	7. Gain adult attention	2. Avoid peers	5. Obtain desired activity	8. Don't know	3. avoid adult(s)	6. Gain peer attention	9. Other: _____									
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<b>Decision/Consequence: (circle all that apply)</b> <table border="0"> <tr> <td>1. Redirection to task</td> <td>6. Curriculum modification</td> <td>11. Physical guidance</td> </tr> <tr> <td>2. Removal of item</td> <td>7. Verbal reprimand</td> <td>12. Physical restraint</td> </tr> <tr> <td>3. Removal of reward</td> <td>8. Seating change</td> <td>13. Sent to different room</td> </tr> <tr> <td>4. Removal of privilege</td> <td>9. Parent contact</td> <td>14. Sent to office</td> </tr> <tr> <td>5. Time out</td> <td>10. Recommend different program</td> <td>15. Sent home</td> </tr> <tr> <td></td> <td></td> <td>16. Other: _____</td> </tr> </table>			1. Redirection to task	6. Curriculum modification	11. Physical guidance	2. Removal of item	7. Verbal reprimand	12. Physical restraint	3. Removal of reward	8. Seating change	13. Sent to different room	4. Removal of privilege	9. Parent contact	14. Sent to office	5. Time out	10. Recommend different program	15. Sent home			16. Other: _____
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		16. Other: _____																		

**Figure 1.**  
*Behavior Incident Report*

predict problem behavior can be used to develop strategies or plans to prevent or reduce the occurrence of behavior incidents. For example, if problem behavior incidents occur most frequently on the playground, the leadership team can develop strategies to

ameliorate the factors that are related to the incidences of problem behavior on the playground (e.g., increase supervision, add more activities or toys, decrease number of children on the playground at the same time).

The leadership team also should gather data on the progress of the program and individual teachers in the adoption of the program-wide model and the Teaching Pyramid practices. We have developed a checklist for leadership teams to use to assess the implementation of the essential elements of the program-wide model (i.e., Benchmarks of Quality, available from the authors). In addition, we have developed the Teaching Pyramid Observation Tool (TPOT; available from the authors), which can be used to assess implementation of the Teaching Pyramid practices within individual classrooms. The leadership team can use the data on teacher implementation of the Teaching Pyramid practices and data on behavior incidences to plan professional development activities and provide teachers with needed resources and supports.

### ***CASE EXAMPLE OF A PROGRAM-WIDE MODEL: IMPLEMENTATION AND OUTCOMES***

The following case study provides an example of the implementation and experiences of one program that has adopted a program-wide model of PBS. This program is currently in its 5<sup>th</sup> year of implementation and represents one of the first efforts to develop a systemic model of positive behavior support within a Head Start program. Because this particular program model evolved in the same time period that information on how to adapt a school-wide model for early childhood programs was being developed and disseminated, their journey does not follow the blueprint that we have described exactly. Their experiences, however, offer rich insight into what might be involved in a program-wide adoption.

The Southeast Kansas Community Action Program (SEK-CAP) administers a large Head Start program in rural Kansas that designed and implemented a program-wide PBS initiative. The SEK-CAP Head Start program serves 768 children in 14 centers and in home-based programs. The program employs 174 staff in the Early Childhood

Services Department. The executive director of the SEK-CAP Head Start program was distressed that many of her staff were increasingly frustrated by their inability to meet the needs of children with challenging behavior in their programs. Although the staff had training in behavior management and high quality early education practices, they reported that they were unable to teach effectively all of the children, were feeling increased levels of job-related stress and burnout, and often left work in tears. In addition, the director observed that teachers in her programs were becoming increasingly reliant on outside experts (e.g., mental health consultants, consulting special educators) to take responsibility for or solve problems with individual children.

The Southeast Kansas Community Action Program (SEK-CAP) PBS project began in response to those needs. It was designed as an ongoing systems level effort that included administrative commitment and resources, comprehensive and continual training of staff, staff support, and dialogue with community partners. The initiative was developed and implemented by a collaborative leadership team of eight individuals including program managers, resource personnel, the executive director, and a local university-based program consultant. The role of the team was to develop the program-wide model, provide resources and supports to teachers and classrooms, and to engage in continuous evaluation and monitoring of the effort. The university-based consultant provided support, training and expertise around program-wide PBS. The program did not have any new resources available for this initiative; rather, they reviewed their existing systems, procedures, and resources to determine how they could be modified to support the PBS initiative.

SEK-CAP's PBS initiative involved a comprehensive plan for training and supporting staff at all levels. Table 2 provides an overview of the training and support activities that occurred in the first year of program-wide adoption. Prior to training staff, the leadership team participated in a 2-day

**Table 2**  
**SEK-CAP Teacher Training and Support Activities**

Training Activity	Staff Involved
Pre-training assessment (April)	Management staff (i.e., education specialists, leadership team members) conducted ½ day observations in each classroom to obtain information on the classroom ecology, adult-child interactions, and classroom organization. These observations were completed in all 14 centers.
Education specialists training (July)	Education Specialists and management team members participated in a 2-day training to prepare them to be classroom consultants on positive behavior support to center staff. At the end of the training, participants assisted in developing the agenda for the center staff training that would occur the following month.
Overview training for all staff (August)	A 1-day orientation to the Teaching Pyramid was provided during inservice week to all staff.
Pyramid training for teaching staff (August)	Teaching staff, along with previously trained Education Specialists and management team members, participated in 2-day training on all levels of the Teaching Pyramid. The training included both classroom-based and center-wide strategies. Participants left the training with a draft of a PBS plan for their classroom.
Follow-up training with center-based staff (October, December, February, and April)	Follow-up training was provided for lead teachers to review the implementation of their behavior support strategies, introduce new topics related to positive behavior support, and to problem solve around issues they faced during implementation of their PBS plan.
Support in the classroom (ongoing)	Management staff visited each site once a month to provide ongoing technical assistance and support. They also were available to assist teachers on an on-call basis.
Planning time (ongoing)	Staff were expected to spend 30 min of their planning time each week working with their classroom teams to review, revise, and plan related to their PBS implementation plan.

*Note.* All training was provided by either administrative staff or a consultant with whom SEK-CAP contracted to assist in the development and implementation of their program-wide model.

training to prepare to become classroom consultants. Prior to implementing any training, management staff conducted observations in each classroom to collect information on classroom ecology, adult-child interactions, and classroom organization.

The initiative began with an overview presentation for program staff on the components of the Teaching Pyramid (Fox et al., 2003). The initial training effort provided a shared foundation of knowledge for all staff. In addition, a more intensive, 2-day

training was provided to teaching staff and focused on prevention and promotion strategies and individualized supports for children with the most persistent problem behavior. Following this training, members of the leadership team visited classrooms and programs and assisted staff in assessing their strengths and needs in implementing the model and developing a classroom PBS plan. This support was provided to classrooms with the belief that implementation of the model would take time and that support

**Table 3**  
*PBS Tool Kit for Teachers*

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PBS Tool Kit

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The PBS Tool Kit is in every classroom in the program. The Tool Kit offers a notebook of resources that staff can easily access for review of classroom practices and tools for problem solving.

Contents include:

1. Overview of Teaching Pyramid model
2. Handouts from Teaching Pyramid training that include implementation strategies
3. Teaching Practices Inventory (self-assessment)
4. Classroom implementation plan
5. Flow chart for problem solving
6. List of mini-trainings that can be requested for classroom team
7. Classroom team meeting minutes
8. Flow chart for obtaining behavioral support for an individual child
9. Functional assessment interview
10. Observation tools
11. Developing a behavior hypothesis worksheet
12. Components of a behavior support plan
13. Developing a behavior support plan worksheet

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*Note.* For more information about the materials included in the Tool Kit, contact Linda Broyles at [lindab@sek-cap.com](mailto:lindab@sek-cap.com)

from the leadership team would be available to ensure that teachers and classroom personnel had the resources and support they needed to implement the model with fidelity. When teachers had children with persistent challenging behavior, the teachers could call upon the leadership team, who had been trained previously, to facilitate a collaborative positive behavior support process (e.g., functional assessment and behavior support plan development).

As part of the training process, SEK-CAP established program-wide behavior expectations that all staff agreed to teach and promote. Prior to establishing a set of program-wide behavior expectations, the number of different rules within a classroom ranged from 3 to 12, with a total of 26 different rules across the program. During a training event with teaching staff, three program-wide rules were identified: (a) We use walking feet, (b) We take turns, and (c) We use soft touch. In addition, individual classroom teams could add up to two additional rules. Once the program-wide expectations were established, all staff (from administrators to classroom staff to the bus

drivers to the cooks) became engaged in actively teaching the rules to the children.

In year 2, teachers were provided with more tools and supports to ensure they could implement the Teaching Pyramid. Each classroom was provided with a PBS Tool Kit that was developed by the leadership team and included guidelines for implementation of the model, information on the key components, flow charts on how to access support and assistance, and needed forms and tools. Classroom teams began to have brief planning meetings each week to review their progress in the implementation of the model and the progress of their children and placed the minutes from those meetings into the PBS Tool Kit notebook. Table 3 shows the items that are in the PBS Tool Kit.

In addition to training, strategies for acknowledging teachers' work on the program-wide PBS plan were implemented. Management staff had trinkets (e.g., pencils) made that said "caught you being good" and left those in teachers' classrooms with a note that acknowledged something they had seen the teacher do well. The director developed a newsletter called *Monday Morning Mes-*

sage. Teachers and other staff sent her an email when they had a success story to tell. Every Monday, she compiled the emails along with her positive feedback and sent it out to all staff. Finally, an effort was made to link all training activities to Child Development Associate (CDA) credit for those teachers working toward a CDA credential.

### **Outcomes**

The SEK-CAP initiative was developed and implemented to provide teachers and children with an effective model for addressing challenging behavior and promoting children's social and emotional competence. The development and adoption of this model by SEK-CAP was an ongoing process. It evolved over time and was developed and fine-tuned in response to staff needs, child responses, and the program's increased access to information and materials that became available as they developed their expertise in this area. There was no manual, guide, or template to follow as this program began its work. As a consequence, the SEK-CAP initiative lacked a well-defined evaluation plan to track the outcomes of their efforts. The following outcomes, however, are notable and offer an indication of the success of the program and the investment of SEK-CAP in their ongoing implementation of the program-wide model.

By the end of the first year of the initiative, initial successes were achieved. On the annual staff survey, program staff reported that they felt more confident about their ability to support children with challenging behavior and became less reliant on outside support to address children's needs. A major goal of the leadership team was to have teachers become less reliant on outside experts (e.g., mental health consultants) to address the needs of children with behavior challenges. In the first year of implementation, referrals to outside consultants began to decrease. Most importantly, as teachers became more confident and skilled, a policy directive eliminated the use of *time out* as a behavior intervention procedure.

In year 2, the role of mental health consultants was transformed by the executive director. As is common in many Head Start programs, mental health consultants were typically contract providers from a community mental health program. Prior to the adoption of the program-wide effort, mental health consultants were called by management staff to take children who had persistent challenging behavior out of the classroom as a crisis response to the problem behavior. With the adoption of the program-wide model, requests for crisis intervention dropped dramatically and there was a resulting opportunity for teachers to partner with the mental health consultant in the delivery of social emotional supports and instruction within the classroom. As a consequence of this change in role, expenditures for mental health dollars shifted from an allocation of 80% for intervention efforts and 20% for prevention efforts to an allocation of 84% for prevention and 16% for intervention. These data suggested that mental health consultants were spending more of their time supporting promotion and prevention efforts and less time doing crisis intervention with children who teachers perceived to be "out of control." In the third year of the program, only three referrals for mental health intervention were made in comparison to 49 referrals in the year before the start of the PBS initiative. Including a mental health consultant on the leadership team provided additional support for the transformation of the role of the mental health consultant in the program.

In an effort to capture the effects of the initiative on classroom practices and staff perceptions at the end of the third year of implementation, a 2.5-hour focus group was conducted with 7 lead teachers and 6 teaching assistants representing all centers. At centers staffed by only one teacher, the teacher and teaching assistant were included in the focus group. In centers staffed by multiple teachers, the teacher and teaching assistants were selected randomly to participate. These teachers represented a mix of veteran teachers who had been with the

program prior to the adoption of PBS and teachers who were new to the program. The purpose of the focus group was to capture the impressions of teachers on how the adoption of program-wide PBS affected their teaching, their program, and the children. A facilitator who was a research professor but not associated with the initiative and who had not participated in any of the professional development activities with the staff (i.e., was not known by any of the teaching staff) conducted the focus group (Vaughn, Shay-Schumm, & Sinagub, 1996) using an open-ended interview guide developed by the first two authors of this article.

The teachers who participated in the focus group met for 2.5 hours to discuss their experiences with the adoption of program-wide PBS and their impressions on how the initiative affected their teaching and the children they supported. The facilitator of the focus group posed questions that were designed to ascertain teachers' impressions on how the adoption of PBS has affected the quality of their classroom and program, their satisfaction with working in a SEK-CAP program, and their sense of efficacy in promoting children's social and emotional development and addressing behavior issues. For example, the questions included: Many of you have worked with SEK-CAP awhile and remember what was going on in the classrooms and the program before PBS was adopted. Are there differences now in how you handle children's challenging behavior in comparison to 3 years ago? Has the adoption of PBS changed your teaching style in any way? How has the adoption of PBS affected the children?

The focus group was audio-recorded and later transcribed for coding. In addition, notes of comments and main ideas were recorded on chart paper during the focus group and provided to the coders for consideration in data analysis. Two coders independently read the focus group transcript and chart paper notes and developed categories for the responses of focus group participants. Following independent coding, the two coders met and discussed their

inferences from the coding process and the categories of responses. Each of the categories was discussed and linked to sections of the transcript that supported the conceptual category. Through that process, several categories were combined to generate a consensus list of categories of ideas expressed in the transcript. Once the list was established, the coders discussed each category and developed themes that captured the meaning of the ideas or feelings documented in the transcript.

Five major themes emerged from their discussion. The themes included reflections on the power of adopting program-wide behavior expectations, integration of the fundamental assumptions that drive PBS, integration of the approach in the program, how discipline practices were changed, and how the initiative affected their interactions with families. These themes are described below with supporting quotes that provide an illustration of the theme using the teachers' words.

*"It's their rules and they own it now."* A key component of program-wide PBS is to establish behavior expectations across the program. This quote refers to the ownership of the program-wide expectations by the children in their classrooms. The teachers in the focus group felt strongly that the adoption of program-wide expectations was an important difference in how they were teaching as a result of the initiative. They remarked that by teaching a limited set of expectations, they were able to more effectively teach children what was expected with a focus on positive behaviors. Several teachers remarked that children were modeling the expectations for each other. They also shared that children who moved from one Head Start center to another experienced an easier transition because the behavior expectations across the program were the same. As one teacher described it, "They don't have all new expectations when they go into a new classroom. They might have new faces, but all the expectations are the same. And the child has a better transition."

*"You have to look and see where the behavior is coming from."* The teachers described their implementation of PBS and how it changed their interaction style with children around problem behavior. One teacher described the core assumption of PBS—that problem behavior has meaning—by saying, "What's the rock in his shoe? Let's get out the rock. It's not 'let's fix your kid.' It's a whole different way to look at it." Many of the participants shared stories about the effectiveness of this approach in supporting children with challenging behavior. One teacher shared the following story:

We had one child that behavior was extreme to the point that they had taught us to use restraint...and it went against everything that all of us felt. If you were to touch him, it would increase his aggression. PBS taught us that we were increasing his fear. He was afraid so he was acting out. So, when we started looking underneath his behaviors....we changed our environment and the behavior went down...we switched him to an afternoon class because he was always cranky....All of his behaviors stopped, all of them...He is a completely different child.

*"It's company wide...you gotta use PBS."* In reflecting on how the adoption of the initiative has affected SEK-CAP, the teachers described that PBS had become part of the culture of the program. A teacher described it in this way: "It's company wide...you gotta use PBS with the children, period. The minute they are put on the bus or they walk in the door." Another teacher described how the philosophy of PBS extended beyond an approach to use with the children to how all staff members were expected to interact. She said, "It's everywhere. It's an expectation...We were taught those expectations and we were all expected, you know, to use soft touches to each others' hearts. To be supportive and encouraging."

*"We're actually looking beyond what's the normal little box."* The teachers reflected on how the adoption of the model changed their teaching. One teacher shared that "the big change for me was to give choices instead of time out." Another teacher stated, "It was difficult at first, but the more you use it, the

better it is and it is life changing." In reflecting on their current practices it was apparent that the teachers understood the Teaching Pyramid and knew how to use a variety of strategies to meet the needs of individual children. Teachers described using choice, teaching problem solving skills, using peer buddy systems, adapting the environment, providing positive redirection, using positive reinforcement, and teaching emotional literacy skills.

*"We try to have their input on how they can use PBS at home to better their situation and ours too. It's like a joint effort."* The teachers made numerous comments on how this initiative gave them new tools to support families. One teacher reflected how the adoption of PBS had changed her perspective about Parent and Children Together (PACT) nights. She shared, "I dreaded it....And now we have more fun. I look forward to PACT night because everyone is on the same page." Another teacher shared that PACT nights have become "a place where we can model for parents and you can see what families are struggling with and may need more support and tools from you." The teachers have observed parents using PBS strategies with positive outcomes for the children. One teacher noted that siblings who are new enrollees in the program are beginning to come to the program knowing the behavior expectations because their parents are teaching them at home.

When asked to reflect on the outcomes that had resulted from the adoption of the model, the teachers described outcomes both for the children and for themselves. One teacher described the outcomes for children in this manner, "By having this program, it is helping daily. More children are successful." Another teacher described the benefits as "less behaviors in the classroom and more time to talk friendly to children." The teachers shared that they feel less stressed, are more confident in their ability to deal with problem behaviors, and feel more supported by their supervisors. One teacher said, "The stress level is reduced. I feel more confident to try new things." The teachers

agreed that the initiative has helped reduce staff turnover.

## **IMPLICATIONS**

There are some important lessons that have been learned from the SEK-CAP experience and other early childhood programs with which we have worked in implementing a program-wide model of behavior support. These lessons relate to developing an effective approach to behavior support and to evaluating and sustaining that effort over time.

First, strong and effective leadership is critical to this process. Developing and implementing a program-wide behavior support plan requires many resources, and administrative support is essential to ensuring those resources are available. Further, administrators must be involved in the development of policies and procedures needed to make this model work and sustain its implementation over time.

Second, the development and implementation of program-wide PBS takes time. The SEK-CAP program has been engaged in the implementation of their program-wide model for over 5 years and they are still developing new aspects of the model and continuing to ensure the effective and consistent implementation of all of the pieces of their model. The leadership team continues to meet to ensure that the initiative is successful, that staff training and support needs are met, to plan expansions of the model (i.e., to home-based and parent training), and to evaluate outcomes in a manner that can capture child change.

Third, programs have found it helpful to find ways to provide staff with acknowledgement for their commitment to and implementation of the plan. This has been accomplished through recognition at staff meetings and prizes (e.g., ribbons, certificates, special snacks or meals). It is important to provide support to adults as they work with children with challenging behavior and to provide positive feedback for their efforts.

Fourth, programs will need assistance from consultants with knowledge and experience in behavior support to develop and implement this model. SEK-CAP was fortunate to have a local behavior consultant who was knowledgeable about the Teaching Pyramid and eager to implement a program-wide effort. The vast majority of early childhood programs do not have behavior specialists or mental health consultants as members of their staff who can guide this effort. Based on our experiences with early childhood programs, particularly child care, it is likely that programs will need some level of assistance particularly around training staff to implement the team-based process for children with the most significantly challenging behavior. The role of an outside consultant, however, must be crafted carefully to ensure that there is a focus on building the capacity of the program to sustain the model. Over the 5 years of the SEK-CAP initiative, the role of the local behavior consultant has shifted from conducting training and facilitating behavior support plans for children with intensive behavior support needs to consultation to the leadership team as they develop new aspects of the model.

Fifth, when programs have access to mental health consultants or special educators, it is helpful to have those individuals involved in the development of the program wide implementation plan. This helps build support for promotion and prevention and ensures there is a plan in place for addressing the needs of children with more persistent challenging behavior. Further, it increases the likelihood that there is agreement on the philosophical approach and the procedures that will be used as part of the implementation plan.

We offered the SEK-CAP program as an example of one approach to implementing program-wide PBS in early childhood settings. While we provided some description of the outcomes they experienced from implementing the model, this program did not conduct a systematic and comprehensive evaluation of their implementation of the

**Table 4**

*A Framework for Measuring Implementation and Outcomes of a Program-wide PBS Approach in Early Childhood Settings*

Level	Variable	Sample Measures
Fidelity of implementation	Implementation of the essential elements of a program-wide model	Benchmarks of Quality*
	Implementation of the Teaching Pyramid in classrooms	Teaching Pyramid Observation Tool for Preschool Classrooms (TPOT)*
Program	Overall program quality	Early Childhood Environment Rating Scale (ECERS-R; Harms, Clifford, & Cryer, 2005). TPOT*
	Number of expulsions	Program records
	Calls to consultants related to behavior	Behavior Incident Report
	Classroom requests for assistance	
	Special education referrals	
	Mental health referrals	
	Calls to parents related to behavior	
Classroom or teacher	Teacher satisfaction and support	Staff Survey
	Classroom rating of engagement in activities and routines	Engagement Check II (McWilliam, 1999)
Child	Social skills	Social Skills Rating System (SSRS; Gresham & Elliot, 1990)
	Problem behavior	Program identified developmental assessment instruments

*Note.* \* = available from the authors of this manuscript.

model. To move this model forward as an evidence-based practice, a more rigorous evaluation is needed. To accomplish this, we propose an evaluation that includes four levels of data collection: fidelity of implementation, program, classroom or teacher, and child (see Table 4). This evaluation plan includes formative data that can be used for ongoing data-based decision making and more summative measures of outcomes related to program-wide implementation.

As we have worked with programs, we have assisted them in developing practical strategies for collecting evaluation data. At the implementation and program level, we have worked with programs to integrate these data collection strategies into ongoing activities within their program. In some cases, this means programs have had to be more

systematic in the procedures they already have in place. For example, many of the variables associated with program level outcomes (e.g., calls to consultants, mental health referrals) are data that might already be collected but are not tracked systematically.

An important program level measure is behavior incidences. While programs have found it difficult to collect ongoing data on behavior incidences, some programs have created alternative strategies for collecting these data. For example, one program decided to have a “data day” each week and on that day, all teachers were responsible for collecting data on individual behavior incidences that occurred during any part of the day. At the teacher level, some programs have integrated additional questions into existing staff surveys to assess the effects of

the behavior support model on teachers' feelings of competence, confidence, and support related to addressing young children's challenging behavior.

Ultimately, the key outcomes of this model will be changes in children's social and emotional development and challenging behavior. In programs where ongoing assessment is being used to track child outcomes, we have encouraged programs to include a measure of social and emotional development (if it is not already included) and to use the data from that process to track outcomes related to the program-wide behavior support model. In Table 4, we have included a suggestion to use the Social Skills Rating System (SSRS; Gresham & Elliot, 1990) as it provides a standardized measure that can be used to track child growth on both problem behavior and social skills and assist programs in identifying children who are at risk and who have significant delays. This measure, as with most social emotional and behavior assessments, is based on teacher report. A significant barrier to measuring the outcomes of a program-wide model is the lack of reliable and valid measures of young children's behavior that are not dependent on teacher or parent report. Given that the model is focused on changing teacher behavior and measuring the effects on child behavior, a measure is needed that does not depend on teachers' reports of children's behavior.

In programs we have supported, the implementation of a systematic evaluation plan has been challenging. Unlike schools that have infrastructures to support data collection, evaluation and reporting, most early childhood programs, especially community-based early childhood programs, traditionally have not had these infrastructures in place. Further, because many of these programs are not well funded and operate on a limited budget, evaluation has not been a priority. While current trends in accountability are placing increasingly greater demands on early childhood programs to evaluate outcomes (e.g., public school preschool, Head Start), the lack of resources is

likely to continue to be an issue in the child care community; however, in those programs where systematic evaluation information is collected, leadership teams and teachers are using data to guide their implementation efforts.

Program-wide PBS offers early childhood programs a promising model for a systemic approach to supporting young children's social and emotional development and school readiness and addressing challenging behavior. While the resources and expertise to adopt this model might be difficult to secure, the SEK-CAP experience indicates that important outcomes can result. The complexity of early childhood service systems poses many unique challenges to the potential adoption of a program-wide model; however, the promotion of children's social and emotional development and behavioral competence is a critical priority to promoting children's school success.

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