Early childhood scholars (e.g., Odom & Wolery, 2003; Rapport, McWilliam, & Smith, 2004; Sandall, McLean, & Smith, 2000; Wolery & Wilbers, 1994) have reached consensus about the importance of inclusive, integrated models of service delivery in early childhood programs. One defining element of inclusive early childhood programs is that young children with disabilities attend community programs with their typical peers. Research evidence (e.g., Guralnick, Connor, Hammond, Gottman, & Kinnish, 1996; Hundert, Mahoney, Mundy, & Vernon, 1998; Odom & Diamond, 1998) supports the notion that children with disabilities gain competence when they participate in enriched learning opportunities with typically developing peers as social partners. Therefore, an essential goal of inclusive early childhood education programs is to promote friendships and social relationships among children with and without disabilities (Guralnick, 1990; Strain, 1990). Researchers have found that children with disabilities are more interactive in inclusive settings than in segregated settings (Guralnick et al., 1996) and are more likely to interact when the ratio of typically developing peers is higher (Hauser-Cram, Bronson, & Upshur, 1993). Parents believe that their children with special needs benefit from inclusive settings and report that inclusive programs help their children improve their social skills and relationships with peers (Bennett, Delucca, & Bruns, 1997; Guralnick, Connor, & Hammond, 1995). As such, early childhood classrooms appear to offer enriched opportunities for children to learn developmental skills and acquire competence as social partners.

A second defining element of inclusive early childhood programs is that therapists provide services that use the child’s naturally occurring activities within the classroom routine (Giangreco, 1986; McWilliam, 1995). To learn new skills, children need frequent practice and multiple opportunities to experience the activity. Practicing the skill in an isolated setting once or twice a week is less likely to produce learning that leads to new behaviors and increased competence. To allow for frequent practice and frequent reinforcement of a new skill, therapists (including occupational therapists [OTs], physical therapists [PTs], and speech-language pathologists [SLPs]) work with children with disabilities in their natural learning environments.

**ABSTRACT:** Purpose: This article presents a rationale for specialized services personnel to use fluid models of service delivery and explains how specialized services personnel make decisions about the blend of service delivery methods that will best serve a child. Method: The literature on occupational therapy, physical therapy, and speech-language pathology service delivery in early childhood programs is reviewed, synthesized, and applied to current practice. The literature explains that direct and consultative services provide unique benefits to children and should be flexibly scheduled based on each child’s current priorities. Flexible service delivery models allow therapists to meet the evolving needs of children within dynamic environments. Conclusion: To establish fluid service delivery models, therapists need to (a) plan collaboratively with teachers so that the model selected meets the teacher’s preferences, (b) design flexible scheduling systems that emphasize inclusive practice, and (c) maintain precise documentation about when and how services are provided.

**KEY WORDS:** early childhood special education, service delivery, consultative services
environments (McWilliam, 1995, 1996). Services in the child’s everyday naturally occurring routine are likely to have greater meaning to the child than are services in an isolated setting (Odom & Wolery, 2003). In addition, when therapeutic strategies are introduced in the child’s everyday environment, they are likely to be (a) implemented by caregivers and teachers, (b) frequently practiced, and (c) generalized to the child’s everyday routine (Justice, So’ka, & McGinty, 2007).

Integrated service delivery implies that therapy services are provided in the classroom and that therapists become part of the early childhood program routine (e.g., during circle time, art activities, or snack). The advantages of this model include that (a) the therapists learn the routines of the classroom and the performance demands on the child, (b) the therapists model for the teachers with the goal that the therapeutic strategies will be implemented when the therapist is not present, and (c) the child remains in his or her natural everyday environment (Odom et al., 2004; Pohlman & McWilliam, 1999; Sandall, Schwartz, & Joseph, 2001). These elements promote the child’s practice of specific skills in different contexts and, therefore, the generalization of emerging skills to different contexts.

To achieve an integrated, inclusive practice model, the adults who interact with the child must share the same goals, agree on the methods of interaction, and agree to a set of priorities. First steps to agreeing on goals and priorities are that professionals adopt a common vocabulary across disciplines and share philosophies about best practice. Taking the time to hold discussions about professional philosophies and perspectives enables the team to find commonalities and to bridge differences, hence removing barriers to teamwork. With this foundation, therapists, teachers, and families recognize the need for integrated, cross-disciplinary child goals (rather than therapy goals). In addition to identifying and prioritizing the child’s goals, the team collaborates to decide what types of service delivery will optimally support those goals (Rapport et al., 2004). With a plan in place, the recommended method for sharing professional knowledge and roles relative to the child’s individualized education program (IEP) is through consultation and coaching. Although leaders in early childhood education have advocated that consultation become the primary model for service delivery (Odom & Wolery, 2003; McWilliam, 1996), practicing therapists continue to use a variety of models, including direct service and one-on-one interventions.

Dilemmas in Inclusive Service Delivery

Despite extensive literature describing inclusive models for therapy service delivery in early childhood programs (e.g., Dunst, Trivette, Humphries, Raab, & Roper, 2001; Rapport et al., 2004), the reality remains that integrated models for specialized services are not always applied. OTs continue to provide up to 30% of their services using a pull-out model in which the therapist works one-on-one with the child outside the classroom (Barnes & Turner, 2001; Holland, 2007). Surveys have found that OTs provide approximately 50% direct services (i.e., one-on-one or in small groups) and approximately 50% indirect services (i.e., consultation or education to teachers or family; Case-Smith & Cable, 1996; Holland, 2007). SLPs provide almost 55% (22 hr/week) of school-based services using a pull-out model (American Speech-Language-Hearing Association [ASHA], 2008). The types of services that SLPs provide include 60% direct services, 22% indirect services, 10% screening and diagnostic evaluation, and 8% consultation (ASHA, 2008). Given the benefits of consultation, it is puzzling that therapists continue to provide these high percentages of direct services. The surveys on school-based practice did not reveal how therapists make decisions about which service delivery model to use. This article discusses a rationale for OTs, PTs, and SLPs to use a blended combination of one-on-one and small-group interventions with consultation. We explain the need for flexible and dynamic service delivery models and describe how OTs, PTs, and SLPs make decisions about what blend of service delivery methods will best serve the child.

Direct Services: Why This Model Remains Relevant

OTs, PTs, and SLPs provide direct services one-on-one, in dyads, in small groups, and at times in large groups. These models of service delivery remain relevant to current practice because they allow interaction with the child that informs the therapists’ consultation with the child’s teachers and other therapists. The goals of direct, individualized services include (a) to establish a relationship between the child and therapist that facilitates particular performance goals; (b) to offer, in addition to the teaching staff, support of the child’s social–emotional growth; (c) to gauge how to adapt an activity to provide a “just-right challenge” to a particular child; and (d) to obtain evaluation data about the child’s performance that can be used to make decisions about revising his or her program.

Odom and Wolery (2003) explicitly stated that effective early childhood programs include one-on-one adult support of the child’s participation in the program’s activities. Sandall et al. (2001) suggested that individualized instruction is a hallmark of high-quality early childhood education programs. This individualized support may include adapting or simplifying the activity so that the child can perform it, encouraging peer support, or physically assisting the child (Myers, Stephens, & Tauber, in press; Valvano & Rapport, 2006).

Relationship-based interventions. In order to establish a relationship with a child, the therapist should embed specific elements within the intervention sessions (Bundy & Koomar, 2002). Termed “therapeutic use of self,” interactional methods are used to motivate, engage, and energize others. To engage the child, the therapist should skillfully select an activity of interest that is motivating to the child and give the child choices during the activity (Case-Smith, Richardson, & Schulz-Krohn, 2005; Girolametto & Weitzman, 2007; Whalen, Schreibman, & Ingersoll, 2006). The therapist should encourage positive affect by attending to and imitating the child’s actions and communication attempts, waiting for the child’s response, establishing eye contact, using gentle touch, and making nonevaluative comments. The goal of these methods is to foster the child’s sense of self and internal control. This goal is particularly important to children with disabilities, who may experience frequent directives and physical assistance from others. Important to their effectiveness is that the interactions are sustained, that they enable the child’s trust, and that they form the basis for an ongoing relationship (Kasari, Freeman, & Paparella, 2006; Mahoney & Perales, 2005).

Studies of the effectiveness of relationship-based interventions suggest that they promote communication and play (Greenspan & Wieder, 1997), social–emotional function (Mahoney & Perales, 2005; Solomon, Necheles, Fench, & Bruckman, 2007), and learning (Wieder & Greenspan, 2005). In a review of 16 studies on the effectiveness of social interactive training on early social communicative
skills of young children with autism, Hwang and Hughes (2000) identified four interactive strategies that were common themes and appear to be critical in facilitating communication. Three of the four techniques—contingent imitation, naturally occurring reinforcement, and waiting for the child’s response—require a one-on-one or small-group context for implementation. As SLPs are well aware, these strategies promote increases in verbal responses, requesting skills, eye gaze, positive affect, and attending.

**Support of the child’s social–emotional growth.** The adults and peers who regularly interact with the child have frequent opportunities to facilitate his or her social–emotional growth. Therapists can contribute to this essential aspect of a child’s development when they are afforded opportunities for one-on-one interaction. As described in the previous section, social–emotional growth is supported through sustained reciprocal interaction and responsive communication between the therapist and child. Interactions are playful and joyful and are not directive or evaluative. The therapist affirms the importance of the child’s actions and establishes the interaction using the child’s preferred play activity (Parham & Primeau, 1997).

Therapists hold the child’s sense of self and self-worth as goals that transcend other developmental goals. Although “sense of self” is seldom adopted as a written goal, it is fundamental to learning and to participating in a social environment. A child’s self-worth is enhanced when adults attend to and interact with the child. Although parents are the essential elements to the child’s social–emotional growth, therapists and teachers can also support development through sustained interactions that clearly demonstrate to the child his or her importance and ability to affect the world. Parham et al. (2007) concluded, based on their observational research of intervention services, that the therapist engenders an atmosphere of trust and respect through contingent interactions with the child. The activities are negotiated between the therapist and child, and the therapist is responsive to altering the task, interaction, and environment based on the child’s responses. The interactional component of the intervention appears to be essential to eliciting a higher level response and promoting the child’s learning (Bundy, 2002b).

**Adapting the activity to provide a “just-right challenge.”**

Direct, individualized services allow OTs, PTs, and SLPs to adapt and grade the activity during their play interactions with the child. Children progress and learn new skills when they are challenged to perform an activity that is slightly more difficult than the skills that they have mastered. Therefore, to acquire new skills, the child must be placed in a situation that is somewhat stressful and somewhat demanding but not overly frustrating as to cause failure. Determining the just-right challenge requires the therapist to know the child’s skill set well and to identify the developmental levels of an activity (Koomar & Bundy, 2002). Once the child engages in a developmentally appropriate activity, the task may need to be simplified or modified to create an easier challenge, or it may need to be modified to increase the challenge.

The following scenario is an example of cotreatment that uses a just-right challenge to elicit a child’s optimal performance.

After setting up a play activity for a 4-year-old with communication and motor skill delays, the SLP, with the OT assisting, asks the child to select toy food items to place in a picnic basket, identifying and pointing to named foods. Because the child accurately identifies food items by pointing, the SLP prompts the child to name the food items and the OT cues the child to gesture how each food item is used (e.g., pouring the juice, biting the apple). To further challenge the child, the SLP and OT initiate a picnic lunch. They use simple verbal cues, clear gestures, and frequent reinforcement to facilitate the child’s participation in the picnic. Together, they elicit the child’s (a) requesting and sharing of food items, (b) pretend eating, and (c) single-word descriptions of the food (good, red).

In this scenario, the SLP and OT extended a practice of naming food items into an imaginative, multischeme, multistep play scenario. The SLP modeled action–agent combinations to support the child’s speech efforts, and the OT modeled play actions to support the child’s motor planning. Throughout this activity, the therapists monitored the child’s responses so as to challenge the child and to elicit the next developmental steps while reinforcing the child’s efforts.

Tickle-Degnen and Coster (1995) studied how OTs challenged children in sessions using a sensory integration approach. Based on time-sampled ratings of behavior from video-recorded therapy sessions, therapists’ and children’s interactions alternated between being playful and being task oriented. When therapists achieved a just-right challenge, both playfulness and task orientation were high. During a just-right challenge, the child’s initiative was high, the therapist was supportive and playful, and the rapport between the therapist and child was high (Tickle-Degnen & Coster, 1995). In a just-right challenge, the therapist is intimately tuned into the child’s responses to the activity, adapting the activity based on the child’s engagement and success.

**Ongoing evaluation of the child’s performance.** In children with special needs, daily changes in behavior and performance can be expected and do not always represent positive growth. For example, small changes in routine (e.g., the mother is out of town or the breakfast routine is altered) can cause a child with autism to regress. When therapists have frequent one-on-one interactions with a child, they are sensitive to the child’s behavioral changes and can easily adjust the intervention.

Examples of when ongoing evaluation is needed are when the child acquires new technology or adapted equipment or needs a modification of existing equipment. When SLPs recommend adapted equipment (e.g., switches or an augmentative communication device), frequent one-on-one evaluation is required to monitor its use and adjust or modify the equipment. Ongoing assessment and adjustment are critical to ensure that the equipment remains helpful and appropriate to the child. Initiating the use of assistive technology or adapted equipment also requires frequent consultation with the teachers and caregivers who support the child’s technology use. Consultation and direct services are virtually always provided together and have limited effectiveness when only one is provided.

**Consultation Services: How Consultation Can Enrich the Child’s Program**

Consultation is frequently a component of OT, PT, and SLP services. The amount of time that a therapist spends consulting with other adults about a child should vary during the course of the child’s program and may increase when the child’s medical condition changes, the child receives new adaptive equipment, or the child’s classroom or schedule changes. Therefore, the intensity and type of consultation should be based on the expressed interests of the teaching staff in addition to the needs of the child. Therapists decide the level of consultation based on the child’s specific therapy needs, the type of program to be implemented, classroom characteristics, and the teacher’s skills and training (Hanft & Place, 1996).

Because therapists complement and support, rather than replace, the child’s educational program, therapists’ major role is to support
teachers in providing optimal instruction to students. Therapists accomplish this role by promoting the teacher’s understanding of the communication, physiological, and health-related issues that affect the child’s behavior and assisting teachers in applying strategies to promote the child’s sensory, motor, and communicative performance. Therapists also support teachers in adapting instructional activities to enable the child’s participation and in collecting data on the child’s performance. Therefore, the steps in consultation involve not only child evaluation and intervention planning but also assessing the teacher’s learning needs and concerns about the child. In addition, consultation is more likely to be effective when therapists gain knowledge about the early childhood curriculum and develop an understanding of how the classroom environment is organized.

Working effectively with teachers. In effective consultation, therapists fully understand that the goal is not to teach the teacher how to implement therapy strategies. Nor is the goal of consultation to achieve the therapist’s goals for the child through the teacher or another professional. The goal of consultation is for the therapist to support the teacher in his or her teaching role, including helping children achieve their IEP goals (Giangreco, Cloninger, & Iverson, 1998). This focus suggests that in the role of consultant, the therapist considers the teacher’s needs to be a priority and focuses on supporting his or her effectiveness in the classroom (Hanft, Rush, & Shelden, 2004). To enable teachers to provide instruction that matches the abilities and needs of an individual child, the OT, PT, and SLP must first understand the teacher’s overall goals for all students and the early childhood curriculum. In addition, the therapists must assess the teacher’s perception of the child, classroom management style, comfort level with a child with special needs, and learning style and interests (Hanft et al., 2004). The steps involved in effective consultation have been conceptualized as (a) gaining an understanding of the teacher’s concerns and classroom context, (b) reframing the child’s behaviors, (c) using the teacher’s learning and teaching style, (d) collaborating to determine how strategies are implemented in the classroom, and (e) collaborating to assess the effects of the strategies (Bundy, 2002a; Hanft & Place, 1996).

Gaining an understanding of the teacher’s concerns and classroom context: What story am I in? The beginning point for successful consultation is the teacher’s concerns about the child. Often, the teacher has identified performance problems that he or she feels uncertain how to resolve or behavior problems that are interfering with classroom management. The therapist should adopt the teacher’s priorities for the child (Bundy, 2002a). For example, if a child with disabilities cannot participate in snack or communicate his needs, group activities can become difficult for the teacher to manage. Although participation in snack may not be the OT’s and SLP’s top priority, providing consultation that helps to resolve the teacher’s priorities can enhance trust and rapport between the therapists and teacher.

Without a clear understanding of the preschool curriculum and the classroom goals, therapists cannot provide consultative services that meet the teacher’s needs. OTs, PTs, and SLPs may not have training in educational curriculum; therefore, they can enter the preschool environment with minimal understanding of what story they are in (Bundy, 2002b). Training in the early childhood curriculum is not always easily accessible for therapists; however, when therapists and teachers have opportunities to meet and collaborate, teachers can share their lesson plans with the therapists and introduce them to the curriculum. This information will invite therapists to begin planning instruction with teachers, to use curricular themes in their intervention sessions, and to complement the early childhood curriculum when they interact with individual students. This information informs the therapist as to what the teacher expects of the students and provides a context for understanding a teacher’s view of the student’s performance.

Reframing the child’s behaviors. To provide effective consultation, therapists should begin with a thorough understanding of the teacher’s perception of the child and reasons for that perception. Teachers may be frustrated with a child’s behaviors or lack of participation and may not understand the underlying reasons for those behaviors. At times, teachers may believe that a child’s actual ability is higher or lower than his or her performance. When a child’s behavior does not match the teacher’s expectations, teachers and family members may have a limited understanding of the reasons for the behavior or performance. Therapists can help teachers make sense of a child’s performance. For example, the SLP can help the teacher understand if a child’s communication impairments are due to a cognitive impairment, a sensory processing disorder, oral apraxia, or auditory comprehension problems. A primary role of the SLP becomes helping the teacher to reframe the child’s behaviors and to expand the teacher’s understanding of why the child demonstrates speech delays or difficulties (Nungesser & Watkins, 2005). With an understanding of the underlying cause for behavior, new strategies to assist the child become appropriate and are likely to be successful.

Although increasing understanding of the child’s behavior can be important, therapists also need to fully recognize and help resolve the teacher’s concerns. For example, knowing that a child has temper tantrums daily because he does not have the expressive language skills needed to communicate his needs does not immediately eliminate the temper tantrums. Therefore, the explanation for the child’s behavior must be accompanied with practical, user-friendly strategies to resolve the concern. Strategies that offer an immediate resolution to the teacher’s concerns and begin to resolve the causative factors promote the consultative relationship.

Using the teacher’s learning and teaching style: Consultation is only effective if the teacher can assimilate and adapt the strategies offered by the therapist so that they work in the classroom. The therapist should ask the teacher how he or she learns best and then accommodate the teacher’s learning style (Hanft et al., 2004). It is best to offer information in multiple ways and to use active learning principles. Many teachers, like their students, learn best by doing. Therefore, it is often best to offer a range of teaching strategies (e.g., the therapist can model the strategy, allow the teacher to try the strategy, and then give the teacher feedback). Handouts can provide teachers with information about the disability or the intervention technique. When equipment (e.g., Intellitools, augmentative communication devices) is introduced into the classroom, it is important that the teaching staff understand its purpose and how it works. Modeling and coaching are helpful before expecting teachers to use the equipment, and continued intermittent support is important. Follow-up is also important; that is, therapists should regularly monitor the equipment use, adapt the equipment as the child’s performance changes, solve problems as they arise, and reinforce the teacher’s efforts to use the equipment.

Therapists should also consider the teacher’s teaching style when determining how to offer the consultation. Often, teachers are creative and know how a strategy will best fit into the child’s routine. Teachers are most successful in adapting and applying the strategies recommended by therapists when they thoroughly understand the
rationale for, and the goal of, the strategy. Teachers need to be comfortable with interventions, and therapists should offer strategies that fit easily in the classroom routine.

**Collaborating to determine how strategies are implemented in the classroom.** Certain strategies to improve a child’s behavior or performance require environmental modifications or adjustments in the classroom routine. For example, the child with sensory processing disorder may benefit from low lighting or a quiet environment (Bundy & Koomar, 2002). These changes will obviously affect all of the students and may or may not be feasible to implement. Therapists’ recommendations that affect the classroom environment require high levels of collaboration between teachers and therapists and would always be the teacher’s decision to implement or not (Pape & Ryba, 2004).

Sometimes, recommendations involve only the targeted child but may affect his or her peers. For example, the therapist may recommend that a child use headphones with music, sit on a therapy ball for table work, or use the Picture Exchange Communication System (PECS; Bondy & Frost, 1994) at circle time. These strategies are not as intrusive as changes in lighting or room configuration; however, they require that the child receive an intervention that is being denied to other children. The teacher knows best how intervention methods will impact the other students or affect the daily routine. The therapist and teacher can work together to determine what interventions will benefit the child and are least intrusive to the other students.

**Collaborating to assess the effects of the strategies.** When the therapist asks the teaching staff to implement an intervention, the teacher and therapist should negotiate who will evaluate the intervention’s effects on the child. Based on what effects are expected and how quickly a change in performance is expected, the teacher or therapist may be ideally suited to assess effects. It is the therapist’s responsibility to assess whether or not a recommended intervention is effective or requires modification. With the mandate for increased accountability, children’s response to intervention must be documented to inform decisions about ongoing intervention and level of service (National Research Center on Learning Disabilities, 2005). These assessment data inform the therapist’s and teacher’s decision to continue, modify, or discontinue recommendations.

### Flexible Service Delivery: How To Achieve Integrated Services

Young children with disabilities benefit when therapy is provided as both direct and consultative services. Because children constantly change, curricular demands increase, and the environment is dynamic, frequent interactions between the therapist and the child are needed to inform consultation and to enable the therapist to effectively contribute to the child’s educational program. With opportunities to directly interact with the child and experience the classroom environment, the OT, PT, and SLP can best support the child’s participation and the teacher’s instruction.

Although the early childhood team recognizes that specialized services need to be a combination of consultation and direct services, they tend to categorize services as one or the other or to establish a rigid pattern for weekly services (e.g., 30 min each week; Holland, 2007). In part, these firm schedules are a result of the IEP process, which requires documentation of the amount and model of service. However, more fluid and dynamic models of service delivery are needed. In a fluid model, therapy increases when naturally occurring events create a need, as when the child obtains a new adapted device or has surgery or casting, or even when a new baby brother creates added stress for a family. Similarly, therapy services should be reduced when the child has learned new skills that primarily need to be repeated and practiced in his daily routine or the child reaches a plateau on her therapy related goals.

What are the barriers to using flexible service delivery models? The tight and busy schedules of early childhood professionals tend to make them resistant to changing the established times for, and types of, services (Holland, 2007). When caseloads are high and schedules are tight, increasing the time on behalf of one child may diminish another child’s treatment time. Week-to-week schedules with specifically defined blocks of time can allow therapists to settle into a routine that minimizes decision making.

Although following the same week-to-week schedule has some advantages, few educators believe that the child is best served when therapy sessions are limited to 20 min per week (McWilliam, 1996). Several models of service delivery that offer the possibility for greater flexibility have been proposed (Carlin, 2007). Block scheduling (Rainforth & York-Barr, 1997) and the 3-in-1 model (Annett, 2004) are two examples of flexible scheduling that allow therapists to move fluidly between direct and consultative services. In block scheduling, therapists spend 2–3 hr in the early childhood classroom working with the children with special needs one-on-one and in small groups while supporting the teaching staff (Pape & Ryba, 2004; Stephens & Tauber, 2005). Block scheduling allows the therapists to learn about the classroom, develop relationships with the teacher, and understand the curriculum so that they can design interventions that easily integrate into the classroom. By being present in the classroom for an entire morning or afternoon, the therapist can find natural learning opportunities to work on a specific child’s goals. Using the child’s self-selected play activity enables the therapist to use strategies that are meaningful to the child, fit into his or her preferred activities, and then are likely to be practiced. During the blocked time, the therapist can run small groups (using a coteaching role; Cook & Friend, 1991), coach the teacher and assistants (Rush, Sheldon, & Hanft, 2003), and evaluate the child’s performance, and provide one-on-one services.

In the 3-and-1 model (Annett, 2004), the therapist dedicates 1 week a month to consultation and collaboration with the teacher, providing services on behalf of the child rather than directly to the child. When the IEP document states that a 3-and-1 therapy model will be used to support the child’s IEP goals, the parents, teacher, and administrators are informed that one quarter of the therapist’s time and effort for that child will be dedicated to planning, collaborating, and consulting for him or her. Stating that a 3-and-1 model will be used removes the expectation that the therapist will provide one-on-one services for a set number of minutes each week. It facilitates meeting and planning time and legitimizes consultation time as important to the child’s progress as one-on-one services. For example, the week of indirect service can also be spent creating new materials and adapted devices for the child (e.g., an Intellikeys overlay to use with the curricular theme of the month). Therapists can write “social stories” (e.g., Gray, 2003) for the child or program new vocabulary into the child’s augmentative communication device.

These examples of flexible service delivery models allow therapists and teachers to make good choices as to how specialized services will be provided to, and on behalf of, children with special needs. When the IEP states that a range of services will be implemented
according to the changing needs of the child, communication and collaboration among teachers and therapists become essential. Flexible models become effective when teachers and therapists carefully monitor how the child is progressing toward his or her goals and consistently communicate about what specialized services will benefit the child. A fluid model requires that therapists and teachers frequently assess whether or not interventions are effective in order to determine when and if the service delivery model should change. Flexible and dynamic models hold promise when

- the planned range of services is clearly documented,
- services that are actually provided are clearly documented and communicated,
- data on the child’s response to intervention are obtained, documented, and communicated.

Although flexible models may improve the effectiveness of specialized services, they do not decrease cost, and the time commitment for therapists and teachers remains unchanged. The 3-and-1 or other flexible models of service delivery require the same or greater intensity of assessment, documentation, and communication by teachers and therapists.

Decision Making About Service Delivery

To make decisions about what service delivery model is likely to be most effective in serving the child and teacher and meeting the child’s IEP goals, clarity about the benefits and limitations of each model is needed. The following case study provides an example of blended service delivery and illustrates how service delivery decisions are made.

Application for a flexible service delivery model. Jasmine, who is 4½ years of age, attends a neighborhood early childhood program with 3 children who have special needs and 3 typically developing peers. The program is staffed by a teacher and a teaching assistant, and Jasmine receives weekly OT, PT, and SLP services. Jasmine has cerebral palsy with spastic quadriaparesis. Although she has significant delays in all developmental areas, her motor skills are markedly more delayed (8-month level for gross motor and 15-month level for fine motor) than her cognitive skills and receptive language (24- to 30-month level). Jasmine has emerging pretend play skills that are limited to 1- to 2-step pretend play schema. She prefers simple play actions such as hugging or feeding a doll and does not demonstrate complex schema such as pretending to be a nurse or teacher.

Jasmine’s gross motor skills are significantly limited; she sits independently but requires moderate assistance to stand. She recently obtained a power wheelchair that she is learning to operate. She requires assistance to transfer in and out of the chair. Her fine motor skills are also limited; she can point and reach but is not always accurate.

Jasmine feeds herself with an adapted spoon and some support at the elbow. She manages to drink liquids with a long straw from a cup that is latched to her wheelchair. The SLP is concerned that Jasmine frequently chokes on thin liquids, but a recent videofluoroscopic study indicated no aspiration. Jasmine’s speech is severely dysarthric and she vocalizes few consonants. Her primary method for communication is pointing to pictures to indicate her needs.

Jasmine’s therapy needs cross multiple areas of function. Her OT and SLP provide direct services and consultation to the teacher for feeding. Her PT provides direct services and consultation regarding bathroom independence and mobility. The SLP had initiated the use of a picture board so that Jasmine could indicate basic needs and play interests. The SLP recently expanded the choices on Jasmine’s picture board to 12 and feels that a more dynamic augmentative communicative device is needed. Over the past year, the SLP has focused on improving Jasmine’s speech production; however, Jasmine has made minimal progress.

With multiple needs across all domains of function, the OT, PT, and SLP provide once-a-week direct services at different classroom times to continually assess Jasmine’s skills, adapt their strategies, identify methods to increase Jasmine’s function, and practice emerging skills. Their focus shifts from feeding to toileting, mobility, and communication.

When the SLP suggested that an augmentative communication device would increase Jasmine’s communication and social participation, the therapy team completed a comprehensive evaluation. The evaluation, which included a trial of a couple of different devices, focused on determining which device Jasmine could successfully use now and could grow with her to meet the communication demands of a school environment. To determine the features needed in an augmentative communication device, the SLP assessed Jasmine’s vocabulary, receptive and expressive communication, social interaction, and cognitive function to determine what software would be needed. The OT assessed Jasmine’s visual motor skills, visual perception, attention, and postural control to identify the most appropriate access method. The SLP and OT synthesized their findings and recommended a DynaVox V. Jasmine’s family was able to find funding to immediately purchase one.

Direct services. When the DynaVox V arrived, both the OT and the SLP increased Jasmine’s level of service to twice a week in order to ensure that the device would be successfully integrated into the classroom. The SLP programmed the device to match Jasmine’s working vocabulary and phrases that were used frequently in the preschool curriculum. The SLP and OT used small-group activities with some one-on-one support to help Jasmine learn the touch screen access and initiate interactions with her peers. The therapists assessed Jasmine’s ability to use the device in her classroom, the bus waiting area, and the playground. For each of these settings, the SLP developed pages with relevant vocabulary and phrases, and the OT problem solved access issues to ensure that Jasmine could reach, hold, and operate the device in and out of her wheelchair. The SLP focused on optimizing Jasmine’s ability to make requests, express needs, and initiate interactions with adults and peers.

Consultation. Collaboration with the teacher and assistant was needed to enable the success of Jasmine’s use of the augmentative communication device in the classroom. The goal of the OT and SLP consultation with Jasmine’s teachers was full integration of the DynaVox V into Jasmine’s social interactions. The questions that guided the therapists’ consultation included:

- Where should the device be positioned for Jasmine’s best access?
- How can vocabulary be regularly updated so that it matches the preschool lessons?
- What supports are needed to incorporate the DynaVox into Jasmine’s everyday routine?
- How will the device increase Jasmine’s social participation and communication and prepare her for entering kindergarten next year?
CONCLUSION

Early childhood therapists have made strides toward adopting flexible service delivery models in which all therapy is integrated into the classroom. These flexible models allow therapists to provide different levels of consultation and direct service according to the child’s needs, the teacher’s concerns, and changes in the environment. Fluid models have the potential for providing the most appropriate level of specialized services based on teachers’ and children’s potential to benefit. One priority in using more fluid models is determining a method for flexible scheduling so that more intense services do not detract from another child’s services. A second priority is communicating with families so that they understand that when therapists use flexible service delivery, their children are not losing services but are gaining a more integrated and potentially effective program. Both priorities can be met if the team engages in thoughtful, collaborative planning when implementing flexible service delivery. Research studies on the effectiveness of consultation and direct services with different types of children and programs are needed. This research can help teams make decisions about the levels and types of service that will optimally benefit young children with disabilities.

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