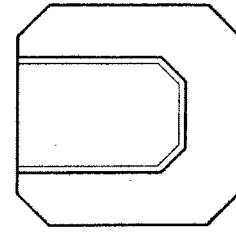


# Interventions To Support the Play of Children with ASD



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## QUESTIONS TO CONSIDER

In this chapter, you will learn about the role of teaching play to children with autism spectrum disorders (ASD). Several strategies will be described for teaching imitative and independent play, pretend or sociodramatic play, and peer-supported play. You will also learn about the interrelationships among various aspects of play, language, social interaction, and cognition that affect intervention. As you read this chapter, consider the following questions:

1. What strategies could be effective in supporting the imitative and independent play of children with ASD?
2. How can pretend or sociodramatic play be developed for children with ASD?
3. What is the role of peer-supported play in facilitating the social play of children with ASD?

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## ntroduction

Play is an important instrument in the intellectual, linguistic, emotional, and social development of children (Wolfberg, 1995a, 1999). It usually follows a developmental sequence that parallels and reflects the development of language and cognition (Bates, O'Connell, & Shore, 1987). From a language perspective, first words typically develop in concert with the child's use of real objects in symbolic play and combinations of objects in constructive play. When word combinations occur, children are usually performing single-action schemes in their symbolic play and combining four or more structures in their constructive play (Bates et al., 1987). Cognitively, children realize that items of play can serve functions beyond their intended purpose. This facilitates their problem solving, imagination, and creativity (Libby, Powell, Messer, & Jordan, 1998). Chapter 5 described stages of play development, the challenges for children with ASD, and the importance of careful assessment. Because children with ASD show some functional play, teaching play skills that expand their ability to attend to another and to pretend can be an important intervention goal (Charman et al., 1998).

This chapter emphasizes strategies that might be considered in supporting the play development of children with ASD. It will become obvious, however, that supporting a child's play is likely to lead to developments in language, social-emotional, and cognitive skills because of the interrelationships that exist among these developmental domains. In fact, research investigating the effects of developmentally based play instruction has indicated progress in the cognitive and linguistic abilities of children with ASD as well (Rogers & DiLalla, 1991; Rogers, Herblson, Lewis, Pantone, & Reis, 1986).

Following the assessment process, the intervention team has to decide what should be taught and how it should be taught. The literature suggests that children with autism demonstrate little fantasy and symbolism in their play and instead often engage in nonfunctional ritualistic activities using a limited number of objects (Wulff, 1985). It may be that the most effective approaches to supporting play in children with ASD focus less on a typical developmental course and more on the interests of and motivators for the children in which communication and social interaction can be facilitated.

## Teaching Play

The approach to and specific strategies for facilitating play skills in children with ASD must consider the challenge this core deficit area presents to children affected by autism, as well as the interrelationships between play, communication, and social interaction. First, engagement must be established if a child is to attend to and maintain attention and interest in play with another. Interventions such as floor time (Greenspan & Wieder,

1998) and relationship development intervention (Gutstein & Sheely, 2002) have been developed to facilitate engagement in children with challenges in joint attention, interaction, and play (see Chapter 11 for further explanation of floor time and relationship development intervention). Once engagement has been established, enticing the child to join activities initiated by his or her play partner is the important next step. Following enticement, children need to be able to establish reciprocal exchanges with their play partners, initiating and responding to one another in turn. This reciprocal exchange is similar to what occurs in discourse and is a fundamental social skill. As soon as this back-and-forth exchange is achieved, the length and complexity of the turns need to increase. This ensures sustained play activities with opportunities for extending the content and complexity of the play. In addition, the play routines need to incorporate planned variations to promote flexibility in play, as children with ASD often become rigid play partners, have established rules, and become anxious and even aggressive when their “rules” are not followed.

When modeling cooperative play activities, the play partner must become an integral part of the child’s play. For example, the play partner might have a critical prop that the child with ASD needs to continue the activity. The play might involve a familiar theme such as that of one of the child’s favorite stories (e.g., *Caps for Sale*), which is then expanded to include characters or props not in the original story (e.g., boots instead of caps, or squirrels instead of monkeys). The goal is to provide opportunities to increase flexibility in the child’s play and eventually move to more abstract play scripts (e.g., *Harry Potter*).

Other strategies can be incorporated into the intervention to support the child’s development of play schemes. For example, the use of social stories (Gray, 1995, 1998), as described in Chapter 11, can prepare or prime the child for a future play event with a peer. Defining and then reviewing a play script for a child serves many purposes. It helps to outline and define the “rules” for a particular play event, and it models the language and vocabulary that will be emphasized in the play routine. When the child knows what to expect of a particular play interaction, that familiarity can increase responsiveness and participation in the play event. Practitioners might also establish these skills in their play with a child with ASD before integrating peers into the cooperative play activities.

Structuring an appropriate teaching environment is essential to facilitating the play of children with ASD (Janzen, 1996). This might include planned play sessions, a specific location with limited distractions, and selected play materials of interest to the child and relevant to achieving the intended play intervention goals. Play sessions should have clear beginnings and endings, with active involvement of the child and the use of visual cues to support the child’s play choices and prediction of story events.

Several intervention strategies have been used to support the imitative and independent play, pretend or sociodramatic play, and peer-supported play of children with ASD. These strategies are described in the following sections, and the intervention goals, value, and efficacy for children with

ASD are highlighted. Some sample goals for play and the interventions that might be used to support those goals can be found in Table 10.1.

## Imitative and Independent Play Strategies

Dawson and Lewy (1989) describe the use of imitation to increase the attentiveness and social responsiveness of children with autism in play. Recognizing Piaget's (1962) early work on the imitation skills of infants and their resulting attentiveness and motor responses to the imitations of others, Dawson and Lewy explored the effects of imitating the behaviors of children with ASD (Dawson & Adams, 1984; Dawson & Lewy, 1989). They found that imitating the behavior of children with ASD increased the children's attentiveness or duration of gaze toward the adult and their social responsiveness, or touching, gesturing, and vocalizing with the adult. Using an imitation strategy in play gives the child with ASD the role of initiator and allows the child to engage in a shared experience that may increase self-awareness.

Modeling and prompting strategies can be effectively used to teach imitative play to children with ASD beyond imitating the behaviors they typically exhibit with toys or objects of play. Using activities that they prefer also increases the likelihood of their engagement and decreases their tendency to

**TABLE 10.1**

Sample Play Goals and Possible Strategies To Support Those Goals for Children with ASD

Sample Goal	Possible Strategies
To increase both the complexity and the duration of the child's pretend play, moving from adults to peers in structured and unstructured settings.	<p data-bbox="664 1247 1138 1272"><i>Video modeling</i> (Charlop-Christy &amp; Kelso, 1997)</p> <p data-bbox="708 1293 1364 1467">EXAMPLE: Interventionist uses play props to demonstrate on videotape how a child would engage in pretend play with those objects; the interventionist then videotapes two individuals taking turns in a game; the child with ASD watches a 3- to 5-minute video sample that models the appropriate toy play and the game playing between two adults.</p> <p data-bbox="664 1505 1057 1530"><i>Narrative play therapy</i> (Densmore, 2000)</p> <p data-bbox="708 1551 1364 1671">EXAMPLE: Interventionist develops a "play script" in collaboration with a typical peer and a child with ASD. The interventionist narrates the play of both children and then guides them to expand their language understanding and use during play.</p>
To increase the child's expression and use of feelings and ideas through drama and make-believe with adults and peers.	<p data-bbox="664 1709 1190 1734"><i>Floor time</i> (Greenspan &amp; Wieder, 1997; Wieder, 1997)</p> <p data-bbox="708 1755 1364 1875">EXAMPLE: Child with ASD and parent build on the intimate connections already established during rough-and-tumble play to expand to more complex and elaborated play through multiple circles of communication, using highly motivating toys or activities.</p>

avoid play encounters (Koegel, Dyer, & Bell, 1987). Further, children with ASD can be taught to self-monitor their play activities and differentiate between appropriate and inappropriate play (Charlop-Christy & Kelso, 1997).

A first step in teaching imitative play to a child with ASD is to model the desired play action (e.g., pushing a car along the floor) and then immediately give the child an opportunity to imitate that action (e.g., give the child the car to push). If the child does not imitate the action after approximately 5 seconds, the interventionist can repeat the action and say, "Do this" (Charlop-Christy & Kelso, 1997). If the action is not imitated, the child can be physically prompted to perform the action (e.g., by placing the child's hand on the car and pushing it along the table) and then praised and reinforced for doing so. The child is then given another opportunity to imitate the play. If the attempt is unsuccessful, prompting can be reinstated with less directive prompts provided over time. Nondirected play might also be used to support the imitative play skills of children with ASD. The purpose of nondirected play is to provide the child with effective social communication strategies in the context of the natural environment, while the adult plays and communicates alongside the child (Cogher, 1999).

Teaching imitative play supports the child with ASD in learning independent play activities such as putting puzzles together, stacking blocks, and racing cars. When teaching independent play, it is important that interventionists limit their participation over time, so they eventually can remove themselves from the child's play. Providing praise and reinforcement is a powerful motivator until children experience their own satisfaction with successfully completing a task, particularly a preferred task. It is also useful to provide opportunities to play with a variety of toys, interspersing preferred and nonpreferred toys and activities (Charlop-Christy & Kelso, 1997). Correspondence training (teaching children that what they say they will do should relate to what they actually do) and play activity schedules (using photographs to represent play areas) have also been used to teach independent play (Morrison, Sainato, Benchaaban, & Endo, 2002). When using correspondence training to teach independent play, the interventionist teaches the children to select from photographs of play areas those areas in which they wish to play, observes their actual play choices, and then debriefs with them about the play areas they went to compared to the areas they originally selected. The child is prompted with questions or comments such as "Where do you want to play?" "Where do you want to play next?" "Follow your play schedule," and "Look at your play schedule" (Morrison et al., 2002, p. 64). When debriefing with the child following independent playtime, the interventionist might say, "You chose the sand table. Did you play at the sand table?" If the child does not respond, the interventionist might say, "You picked the sand table, and you played at the sand table" or "You didn't play at the sand table today" or "You forgot to play in the sand area today after you were done at the block area."

When teaching imitative play, interventionists might also consider using modeling and reinforcement to facilitate the child's preference for toys and books over engaging in stereotypy or passivity during free time or free

play. Research suggests that books and toys can be conditioned as reinforcers and that behaviors associated with looking at books and playing with selected toys can be learned through imitation for children with ASD (Nuzzolo-Gomez, Leonard, Ortiz, Rivera, & Greer, 2002).

Because imitation has been defined as a critical component in play as well as in language and cognition, and an area of challenge for children with ASD (Lovaas, 1981; Murray-Slutsky & Paris, 2000; Peeters, 1997; Quill, 2000), games such as Follow the Leader and Simon Says might be used. To reflect the "special interests" of the child with autism, the games might be renamed, such as Follow Aladdin or The Hulk Says. Using typical peers to help model and participate in the imitative games provides rich opportunities for children with autism to interact, play, and communicate with their peers.

Self-management strategies, as described in Chapter 13, have also been used to support the appropriate independent play of children with ASD. Children are taught to distinguish appropriate from inappropriate behavior and then learn to manage their own behavior. For example, Stahmer and Schreibman (1992) report on a self-management intervention package to teach three children with autism to increase their independent play skills. Treatment involves discrimination training during which demonstrations of appropriate play (e.g., placing a puzzle piece in a puzzle) and inappropriate play (e.g., spinning or mouthing the puzzle piece) with toys are provided and the children are asked to determine the appropriateness of each demonstration. The children are then asked to provide their own examples of appropriate and inappropriate play with toys. Following that, the children are taught to use a wristwatch that cues time intervals in which to evaluate their play. Reinforcement is given when the entire interval is filled with appropriate play. Children learn to chart their appropriate play behavior, which allows them to obtain a desired reinforcer. The goal in the intervention is to fade the presence of the interventionist over time and to remove the self-management materials (e.g., the wristwatch, monitoring chart) to establish independent and generalized play. Stahmer and Schreibman describe their success in increasing the independent play skills of children with ASD using such self-management strategies.

**Intervention Goals.** Goals for imitative and independent play should include establishing joint attention around desired objects and actions, prompting and modeling play behaviors, and creating variations of those behaviors. Practitioners might also develop goals around identifying preferred toys and books for the child with ASD and reinforcing opportunities to play with those, as research suggests that the unusual repetitive movements and passive nature of many children with ASD decrease when toy and book play is reinforced (Nuzzolo-Gomez et al., 2002). Imitative play is an appropriate intervention goal for children with ASD who are functioning at an early developmental level and should be used to establish initial social interest in play. Upon that foundation, other play behaviors can be built that establish social interaction and understanding games with rules.

**Value for Children with ASD.** The use of imitation in play with children with ASD, including imitating facial expressions and vocalizations, creates a context for intervention that is similar to what very young typically developing children experience in their early interactions with adults. Thus, the interventionist “may be providing a social environment that is developmentally appropriate and meaningful” to children with ASD (Dawson & Lewy, 1989, p. 63). Imitation also provides a visual cue and a predictable response for the child with ASD, thereby minimizing the child’s information processing load. Imitation, as an intervention strategy, “simplifies, exaggerates and distills many important features of early social interaction” (Dawson & Lewy, 1989, p. 63). It provides a salient model and a response that is predictable and contingent (e.g., the interventionist imitating the child lining up cars, using the same color and car type in the same order).

Using nondirective play to teach imitative and independent play skills is likely to increase children’s communication behaviors and their opportunities to engage in pretend play. Further, nondirective play can be used in the home or school setting and across play partners and benefits children with ASD who exhibit limited verbal communication and social interaction skills (Cogher, 1999).

Correspondence training and activity schedules are effective and non-intrusive means of including children with ASD in the play activities of the general education classroom (Morrison et al., 2002). These strategies can be used across settings and for children with ASD who exhibit a range of ability levels. They can also support the organizational skills and engagement of children with ASD during play activities.

Teaching appropriate ways to use books and toys in play and helping to create a preference for such activities over less engaging and socially appropriate behaviors increase opportunities to expand the preferences of children with ASD for all types of activities. Self-management training supports the development of self-awareness in children with ASD, even those with more significant impairments. Both of these approaches to play intervention may facilitate the integration and involvement of children with ASD in inclusive settings. They also are unobtrusive strategies that can decrease the need for the constant presence of an interventionist.

**Efficacy.** The use of imitation as an intervention strategy for children with ASD has shown positive effects. Dawson and Adams (1984) found that imitating the behaviors of children with ASD led to increased attentiveness, social responsiveness, and less perseverative play with toys. Dawson and Lewy (1989) found that mothers of children with autism could be coached to imitate their children’s behaviors, including their vocalizations, body movements, and toy play, which increased the children’s social attentiveness. Mothers of 15 children with autism (2 to 6 years of age) were given two sets of identical toys and asked to carry out the imitation strategy for 2 weeks, 20 minutes each day. Dawson and Lewy found that the children focused more on the faces of their moms, indicating a social interest beyond just the contingent actions with the toys. The children also demonstrated greater exploration with

a variety of toys and play schemes. The researchers provided empirical support for their contention that children with autism can increase their attention to others "by sensitive interactive strategies that provide simplified, predictable, and highly contingent responses and allow the children to control and regulate the amount of stimulation" (Dawson & Lewy, 1989, p. 69). Lewy and Dawson (1992) investigated the effects of imitative play on the toy play, verbalizations, and actions of 20 preschool children with ASD. They found that child-centered intervention, in which an adult interventionist imitates the behaviors of the child, can effect positive change in the joint attention of children with ASD and may support an increase in the complexity of toy play.

Modeling has been successfully used to support the independent play of children with ASD (Tryon & Keane, 1986). Combining correspondence training and activity schedules has also been used to teach children with ASD independent play skills. Activity schedules serve as verbal mediators, particularly for children with ASD who have no or limited verbal skills, to facilitate independent selection and performance of play activities (Morrison et al., 2002). When children with ASD were taught to look at books and play with toys during free play, they demonstrated a significant decrease in their passivity and stereotypic behaviors (Nuzzolo-Gomez et al., 2002). They also sought out toys and books during their free playtime, thus replacing their less socially appropriate behaviors. Stahmer and Schreibman (1992) found that self-management strategies are successful in increasing appropriate play with toys while decreasing self-stimulatory behavior. They also found that appropriate play skills generalized to novel settings and that learning could be maintained. Parents also reported improved play behaviors when their children were unsupervised at home.

## **Pretend or Sociodramatic Play Strategies**

Play is a natural way for children to manifest their social behaviors (Kim et al., 2003). Therefore, objects of play should be items that promote social behaviors, such as balls, board games, and action figures that require a back-and-forth or reciprocal exchange with another child, or dress-up clothes, housekeeping toys, blocks, puppets, and toy cars or trucks that facilitate pretend scripts and imagination. A review of 13 intervention studies examining how toys were used in groups composed of young children with disabilities revealed that children exhibit more social behavior when playing with social toys like balls than when playing with toys like books (Kim et al., 2003). Further, children in mixed groups, with and without disabilities, demonstrate a reduction in inappropriate play and a higher level of cognitive play, as might be seen in constructive play (Guralnick & Groom, 1988). It appears that the greatest social behavior among preschoolers occurs when social toys are available and children with and without disabilities are part of the play group. Therefore, parents, teachers and other providers might con-



sider increasing the access children with disabilities, including ASD, have to social toys and to children without disabilities.

It may be that a child with ASD has demonstrated some appropriate functional and imitative play but appears stuck in his or her ability to move to imaginative play typical of same-age peers. For example, the child may be highly motivated by a movie such as *Toy Story* or a fairytale like "Goldilocks and the Three Bears." The team can take advantage of that interest and familiarity with the script to set up play opportunities in the classroom with relevant props in clear view. Over time, the teacher may add props or characters not in the original story or script to facilitate the child's thinking and movement toward more imaginative nonscripted play in the context of a setting or theme that is familiar and comfortable to the child. Jarrold, Boucher, and Smith (1996) suggest that another way to develop symbolic or pretend play in children with ASD is to build on what the child does functionally or in a meaningful way with familiar objects by introducing perceptually similar but less meaningful or nonfunctional objects into the play routine.

A number of strategies are available to the interventionist to support the skills the child with ASD requires to have successful play experiences. Using open-ended questions, introducing new characters or plots, providing choices, offering logical sequences, and modeling play expansion are appropriate strategies to facilitate the complexity and duration of a child's play schemes. These techniques provide play experiences and relevant language that the child with ASD can "borrow" to elaborate his play themes at later times. This supports the tendency of children with ASD to recall and rehearse motivating topics.

Because reading books is often a favorite activity for children with ASD, the interventionist can respond directly to this interest. A "book bucket" (a book placed in a container with relevant story props included) can be provided to encourage expanding the play of a child with ASD using tangible objects from a familiar story. The use of the miniature props to act out the story can be modeled as needed. These props provide a visual support, and the script of a familiar story provides a comfortable context in which a child with ASD can explore pretend play. Miniatures also can be used to recreate a specific sequence of activities or events the child has experienced or is familiar with. The interventionist provides a model of the language and social behavior associated with the play that is represented using the miniatures.

Just as prompting and modeling are effective strategies to support communication, as described in Chapter 9, and in supporting imitative play as discussed here, those techniques have value in teaching pretend play. Charlop-Christy and Kelso (1997) recommend the strategic use of prompting, modeling, and reinforcement during pretend-play activities (e.g., playing grocery shopping, playing school, playing doctor) that focus on the child's interests and preferred toys. The interventionist can take turns with the child, playing different roles to expose the child to the actions and language associated with those roles in pretend-play activities.

As discussed in Chapter 9, video modeling has been established as an effective intervention strategy to support the language and communication of children with ASD. It also has application for teaching pretend play to children with ASD as young as preschool (D'Ateno, Mangiapanello, & Taylor, 2003). Defining or explaining pretend or imaginative play to children with ASD is a difficult task. The concept knowledge, language, and perspective needed to be successful in imaginative play are specific areas of deficit for the child with ASD. Watching a video, however, where actual play with toys is modeled or two peers engaged in a game or play activity are viewed, supports the child's observational learning in a controlled context. Video modeling is used to facilitate new behaviors or increase desired behaviors through repeated viewings of the target behaviors in short video clips that emphasize those behaviors (Dowrick, 1999). The interventionist might videotape two adults playing a board game, including the language used to initiate turns and comments, as well as the nonverbal behaviors important to playing a game, such as picking a game piece and moving it along a board. A pretend-play event based on a theme (e.g., grocery shopping, playing school) might also be videotaped to be viewed later and then role-played by the child with ASD.

Floor time, discussed in detail in Chapter 11, is a systematic way for parents and educators to interact with children for 20- to 30-minute interaction periods in order to provide a safe environment for the expression and use of feelings through pretend play. The interventionist provides simplified, relevant language describing the positive and negative feelings associated with the consequences of actions during pretend play (e.g., sharing, turn taking). The development of these social-emotional skills can promote successful play interactions with peers.

Pivotal response training (PRT), also described in Chapter 11, has been adapted to support the sociodramatic play of children with ASD (Thorp, Stahmer, & Schreibman, 1995). In a PRT framework, preferred toys that vary with the child's interests are used, play turns and actions with preferred toys are modeled, and appropriate responses are reinforced. Mastered play themes are interspersed with more novel themes to ensure success. The interventionist actively participates in the play, providing models of what to say and do. For example, if a child has an interest in trains, a theme can be developed related to trains (e.g., going on a trip), and different roles can be modeled (e.g., conductor, passenger) and exchanged between child and interventionist. Imaginary characters can be introduced and dolls or stuffed animals can be involved as characters (e.g., passengers) in the play theme.

Teaching sociodramatic play scripts is a strategy that has been used to support the social and communicative play behavior of children with significant language impairments and related handicaps. Although not specifically identified as an intervention strategy for children with ASD, it has usefulness for supporting the development of their pretend play. This training involves creating a script around a sociodramatic play activity (e.g., going to a restaurant) that incorporates both targeted motor or gestural responses and verbal responses for different roles in the script. Both group and individual

training on the script can occur, and an adult interventionist can be used to prompt children to stay with their roles or switch their roles. The adult interventionist can also prompt the children on what to say or do in their roles as needed.

**Intervention Goals.** Language and cognitive development can be enhanced when the gestures and actions associated with pretend play are modeled in association with developmentally appropriate language (Paul, 1995). It is important to increase both the complexity and duration of play for a child with ASD. For example, an intervention goal might be established to develop contexts and play opportunities in which the child can be challenged to think creatively, moving from a predictable to a more spontaneous play event. Child-directed play and interaction, which is supported by adult caregivers during floor time, promotes trust, intimate connections, more pleasurable affect, and a heightened capacity for abstract thinking (e.g., of how another may feel by observing facial and gestural expression) (Greenspan & Wieder, 1997). Intervention goals should consider ways to increase the child's expression and use of feelings and ideas through drama and make-believe with adults and peers. Language models can be provided to describe how the child with ASD feels at different times during play (e.g., "You are mad because you can't find the toy you wanted") and how his or her adult play partners feel during the interactions (e.g., "This game is fun. It makes me happy! See my smiling face?"). This approach can help the child understand and describe the wide variety of emotions he or she feels and how to interpret the emotions of others (e.g., frustrated, scared, surprised, tired, excited). This skill is particularly important for establishing successful peer relationships. As an example, consider the challenges that Ethan, a 4-year-old with ASD, experiences in his pretend play with an adult. Ethan runs into the interventionist with an angry face, saying, "Hurt you." He does not have the language to describe or expand his play or to compensate for the frustration this is causing. The interventionist takes this opportunity to explore what Ethan is feeling and says, "I'm confused, Ethan. I thought we were having a good time playing this game. But you look mad when your face is like this [mimics his facial expression]. Is something wrong?"

An important intervention goal for script training is to teach children with ASD a sociodramatic play theme that can be incorporated into their peer play. Script training can also be used to facilitate appropriate verbal and gestural productions in play. Overall, intervention goals for pretend play should target developmentally appropriate skills, as these are more likely to generalize to other toys and activities (Lifter, Sulzer-Azaroff, Anderson, & Cowdery, 1993).

**Value for Children with ASD.** Three-dimensional objects can provide a valuable visual support for children with ASD in the re-creation of stories or to facilitate pretend-play events. Acting out stories allows the pace of events to be slowed, the language to be simplified, and repetition to occur. Script training provides a structure for learning roles in sociodramatic play

routines and the language and gestures associated with those roles. It also facilitates story understanding and narrative language production. Pretend-play activities provide an interactive context in which to learn actively and an opportunity for modeling language structure and vocabulary in a novel way. Intervening in this area of play will also lead to increased opportunities to develop and support the language and social interaction skills of children with ASD. It can be implemented in the home setting and taught to family members or caregivers.

**Efficacy.** Video modeling has been successfully used to support the play of children with ASD across a range of play skills, including independent play, cooperative play, and pretend or make-believe play (Charlop-Christy & Kelso, 1997). Further, video modeling of imaginative play has been used successfully to increase both verbal and motor responses for children with autism (D'Ateno et al., 2003). Both rapid acquisition of play skills and generalized learning of new play behaviors when implementing video modeling for children with ASD have been reported in the literature.

Pivotal response training procedures have also been used to support the sociodramatic play of children with ASD. Thorp and her colleagues (1995) found positive results for several behaviors important to sociodramatic play. Three children with ASD (ages 5, 8, and 9 years) increased the amount of time they exhibited elements of sociodramatic play and improved their language and social skills, all of which were maintained at a 3-month follow-up. This play intervention approach resulted in an increase in initiations and appropriate responses and a decrease in negative behaviors that generalized to novel situations (Thorp et al., 1995). In a study training preschool children with and without disabilities to act out play themes following a sociodramatic play script, children learned critical behaviors for playing "hamburger stand" using a script with three roles (Goldstein, Wickstrom, Hoyson, Jamieson, & Odom, 1988). Adult prompting during the script training led to significant improvements in the children's social and communicative interactions. Goldstein and his colleagues also found that the children's sociodramatic play following script training was more complex and generalized to free play.

## Peer-Supported Play Strategies

Typically developing children learn to tell a story in play using objects or props with meaning and negotiating the story line with their peers. If children with ASD fail to use objects to represent meaning, they will be at a disadvantage in interactive play with their peers. Introducing the concept of a "story" and creating a "theme" for play can establish a context for joint attention among peers. Play then becomes a "story in action." Narrative play therapy is one intervention strategy used to teach children with ASD to engage in joint attention and follow the sequence of symbolic play while inter-

acting with their peers in natural settings and learning language in social contexts (Densmore, 2000).

The interventionist using narrative play introduces a story in small, sequential steps through symbolic play using circles of communication. The child learns the language needed to tell the story, how to share objects in play, and how to experience play events with peers to establish joint attention. Densmore (2000) identifies two major goals for teaching the use of narratives during play interactions: to develop joint attention, and to develop a sense of story between partners with an object and agent following an action sequence for approximately 5 to 10 minutes using a narrative with a beginning, middle, and end.

The first goal of establishing joint attention in play includes six levels. In Level 1, a peer partner learns to comment either verbally or nonverbally (e.g., saying, "Look!" or pointing to a rising balloon) to a child with ASD. Level 2 involves teaching the child with ASD to look at the peer partner who commented and continually prompting the children to make comments as they look at, for example, a balloon rising to the ceiling. Visual scripts can be used to prompt comments such as "Cool" and "Awesome" (Densmore, 2000). In Level 3, one of the peer partners might be asked by the interventionist to hold an object, such as the balloon, and then ask the other child if he or she wants to hold it. The children are prompted both to ask questions of one another and to answer those questions. In Level 4, the play partners are encouraged to initiate a back-and-forth exchange with one another, commenting about what they are doing. For example, the children might toss the balloon back and forth and make comments like "Catch it," "Here it comes," or "Look out, it's going to fly away." The interventionist can model such comments as well to prompt the children's play. Densmore (2000) encourages the use of varied tone and pitch patterns to encourage strong emotional connections between the play partners. In Level 5, the play partners are left to play independently so the interventionist can observe any attempts at joint attention. The children are praised for their peer play actions, and data are kept on their commenting and looking at their play partner. By Level 6, the peer partner is prompted to move play objects toward the child with ASD, verbally prompting or gesturing to get the child with ASD to respond. The interventionist uses prompts such as questions to increase the peers' time engaged in commenting during their play.

For the second goal, Densmore (2000) describes another six levels designed to help the play partners create a sense of story with one another about objects and agents in play. Level 7 begins by prompting the child with ASD and the peer play partner to create a story about an object of play (e.g., posing questions about the balloon, where it is going to go, how it is moving). The interventionist encourages the children to follow one another and comment on the object and action of their play. Simple language is introduced in Level 8, and the children's comments are rephrased to support the development of a story. For example, a character might be introduced as riding in a hot air balloon to travel around the world. The interventionist allows the

children to name the character or say where the character might be going and then offers simple language to highlight the beginnings of a story (e.g., "David is riding the hot air balloon and lands in Alaska. He is so cold, he decides to come home."). In Level 9, the children's narrative is placed on the computer, and the play partners add photos or pictures to their story, which is placed in a small book. The interventionist might take pictures of the children acting out their story to be added to the book. Both children are given a copy of the narrative with a clear beginning, middle, and end. In Level 10, a videotape is made of the play partners as they create a story about what they are doing together (Densmore, 2000). The children are given an opportunity to watch the video, which is also shared with their parents so that they might learn some strategies from the interventionist to facilitate their child's play with a peer partner at home. Levels 11 and 12 require the interventionist to identify other locations in which he or she might join a child with ASD in play with a peer, narrating their actions, modeling comments, rephrasing verbalizations, and cueing both children to look at one another and their objects of play and make comments so that joint attention is maintained and a sense of story is established.

Other intervention strategies using peers, as described in Chapter 11, and siblings to facilitate the play of children with ASD have been reported in the literature. For example, manual and verbal prompts and modeling are effective strategies to support peer or group play, just as they are useful for developing imitative and pretend play (Charlop-Christy & Kelso, 1997). In addition, incorporating themes into peer or sibling play based on the ritualistic interests of children with ASD leads to increased social skills in play (Baker, 2000). Games such as Memory, Concentration, and Bingo can be modified to incorporate the ritualistic themes of children with ASD as they play with their siblings or peer partners. Pictures of characters and events from a favorite video (e.g., *Aladdin*) might replace the usual pictures in a memory game, for example.

An integrated playgroup intervention model has been used with success to support the play of children with ASD and their typical peers in inclusive settings (Zercher, Hunt, Schuler, & Webster, 2001). There are several features to this model, including well-designed play spaces, play materials with interactive potential, a consistent schedule and routine, a focus on competence, guided participation, developmentally appropriate peer partners, and immersion in play in natural settings (Wolfberg & Schuler, 1993). Typically, the playgroups consist of at least five children, two with ASD (novices) and three to five who are typically developing (experts). The children in the playgroups meet on a regular basis, usually two or more times a week, in a designated play space to socialize for 30 to 60 minutes at a time. An adult interventionist serves as a play facilitator, providing varying levels of support to the players and incorporating the specific interests of the children with ASD into play themes. Essentially, the interventionist serves as an interpreter between the novices and the experts. The interventionist monitors the children's play initiations and scaffolds interactions by adjusting the need for support based on the children's play needs. This integrated

playgroup model has been designed to support the quality of play, focus, and language complexity of older elementary children with ASD (Schuler & Wolfberg, 2000; Wolfberg, 1995b).

**Intervention Goals.** There are some critical goals that can be established using peer-supported play techniques or strategies. These goals include establishing joint attention with peers, developing a sense of story with peer partners in play, and learning to use narrative language to support play activities. Peer-supported or group play can also be used to increase the ability of children with ASD to learn game playing rules (e.g., what to do and how to score in board games, baseball, or soccer) and the possible roles within those games or group activities.

**Value for Children with ASD.** Narrative play intervention can be compared to floor time, as described in Chapter 11. Like floor time (Greenspan & Wieder, 1998), narrative play supports relationship building for children with ASD, respecting their individual needs and developmental level. It requires making emotional connections with peers in play. Floor time works to build circles of communication between children with ASD and their communication and play partners. Narrative play builds on established circles of communication and moves on to introduce a play theme to teach specific language or social communication using peer support. Creating games based on favorite themes of children with ASD is likely to motivate them and reinforce their participation.

**Efficacy.** Although no empirical data is currently available on the use of narrative play therapy with peers and children with ASD, Densmore (2000) provides positive case study reports of its effectiveness. There is support for incorporating the favorite themes of children with ASD into their social play with siblings and their school peers (Baker, 2000; Baker, Koegel, & Koegel, 1998). For example, Baker (2000) used the ritualistic themes of three children with ASD (5–6 years of age) to modify a Bingo game that addressed their special interests (e.g., math number lines, car crashing, movies). The children with ASD and their siblings were prompted to play the modified game. The concept of winning was explained and reinforced to ensure understanding on the part of the children with ASD. Results demonstrated that the ritualistic behaviors of children with ASD can be incorporated into games and facilitate their play with their siblings. Baker's findings show that "frequently occurring thematic, ritualistic behaviors, typically viewed as problematic in young children with autism, may be considered intrinsically reinforcing agents for positive change and development" (p. 79). Thus, children with ASD can learn to interact and play with peers through the use of games. Zercher and colleagues (2001) investigated the effects of an integrated playgroup on the joint attention, symbolic play, and language behavior of twin boys with ASD (6 years of age) as they played with three girls (ages 5, 9, and 11 years) who were typically developing. They found that peer-supported play using the integrated playgroup model led to notable increases

in shared attention, symbolic play behaviors, and verbal productions for the children with ASD.

## Summary

In this chapter, you have learned about several interventions to support the play of children with ASD. The value of teaching imitative, pretend, and peer-supported play in children with ASD has been emphasized. The summary below refers to the questions at the beginning of the chapter and highlights key points you should be familiar with when creating environments and opportunities for supporting the play of children with ASD.

### ***What strategies could be effective in supporting the imitative and independent play of children with ASD?***

Adult imitation of children's verbalizations, gestures, and motor movements positively affects the ability of the child with ASD to share attention with others and increase the appropriateness of toy play. Using preferred toys and objects of interest while modeling and prompting play is also an effective strategy to support not only imitative but also independent play. Imitative play may be an important initial goal for children with ASD, particularly those who demonstrate skills at an early developmental level.

### ***How can pretend or sociodramatic play be developed for children with ASD?***

Several strategies are defined in the literature as supporting the pretend or sociodramatic play of children with ASD. Techniques include script training, pivotal response training, floor time, video modeling, in vivo modeling, and promoting. Although the level of evidence differs among the reported strategies, each strategy has specific skill development and training techniques that enhance the success of a child with ASD to connect with a typical peer.

### ***What is the role of peer-supported play in facilitating the social play of children with ASD?***

Three specific strategies to support the peer and sibling play of children with ASD were discussed in this chapter. These include initiating narrative play therapy, incorporating ritualistic or favorite routines in play, and using an integrated playgroup model. Each of these strategies or instructional models requires children with ASD to establish joint attention with others and to expand their linguistic and social communication skills through narratives and pretend play with peers.

## Practice Opportunities

1. Create a sociodramatic play script that is developmentally appropriate for a child with ASD and teach that script to the child and his or her typical peers.



2. Identify the toy preferences of a child with ASD and describe how you will use those toys to provide an enriched play environment for the child and his or her peers.
3. Using video modeling, develop a script for symbolic play with toys that can be used to teach the child with ASD to attend to the critical elements of play with the selected toys.
4. Create an integrated playgroup of at least five children, with no more than two children with ASD. Outline the prompting and scaffolding strategies the interventionist will use to support peer play within the playgroup.

## Suggested Readings

Charlop-Christy, M., & Kelso, S. E. (1997). *How to treat the child with autism*. Claremont, CA: Authors.

Although this book is filled with valuable research-based intervention methods beyond teaching play skills, the chapter on play is comprehensive, explaining the categories of play that it is important to develop in children with autism and identifying both procedures and tasks used to teach play skills. The authors highlight the effectiveness of prompting, modeling, self-monitoring, and video modeling to support independent, cooperative, and imaginary play.

Densmore, A. (2000). Speech on location: A narrative play technique to teach expressive language and communication to children with PDD/autism/language delay. *Journal of Developmental and Learning Disorders*, 4(2), 209–239.

This article provides an excellent description of narrative play therapy and provides several examples and scripts for supporting children with ASD and their typical peers in pretend play. Densmore makes connections to the principles of floor time and focuses on the value of establishing joint attention between children with ASD and their typical peers.

Odom, S. L., & McConnell, S. R. (1993). *Play time/social time: Organizing your classroom to build interaction skills*. Tucson, AZ: Communication Skill Builders.

This resource contains three primary components that are useful in supporting the social play of children with ASD: social skills lessons, structured play activities, and strategies for prompting and prompt fading. Each of these components is described in detail, and ways to incorporate them in the classroom are discussed.

## Resources

Baldi, H., & Detmers, D. (2000). *Embracing play: Teaching your child with autism* [Video]. Bethesda, MD: Woodbine House.

Beyer, J., & Gammeltoft, L. (1999). *Autism and play*. New York: Jessica Kingsley.

Moor, J. (2002). *Playing, laughing and learning with children on the autism spectrum*. New York: Jessica Kingsley.

Wolfberg, P. J. (1999). *Play and imagination in children with autism*. New York: Teachers College Press.

## Glossary

**Cooperative play.** Two or more children engaged in the same activity and interacting in a cooperative manner.

**Group play.** Play activities with multiple participants, like group sports, games of tag, and board games.

**Imaginative play.** Play involving pretend games (e.g., house, restaurant, doctor); also known as creative or sociodramatic play.

**Independent play.** Solitary play consisting of such activities as block building, coloring, puzzle building, and playing with cars or dolls.

**Passivity.** Not looking at, searching for, touching, or responding to objects of play.

**Stereotypy.** Repetitive movements (e.g., hand flapping, finger flicking, rocking) without apparent consequences for the person displaying the behaviors.

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