

# Special Interest Section Quarterly

# Developmental Disabilities

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## Use of the Lifestyle Performance and Autism Model in a Group for Children With Autism Spectrum Disorders

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The one commonality among persons with autism is that they are all unique. The *Diagnostic and Statistical Manual of Mental Disorders* (American Psychiatric Association [APA], 2000) lists pervasive developmental disorder as the umbrella diagnosis for five related disorders, including Asperger's disorder and autistic disorder. The term *autism spectrum disorder* (ASD) encompasses all the various signs and symptoms that can be present in any of the five related disorders. This article uses the word *autism* as a global term for persons with ASD.

The diagnosis of autism is increasing. The Autism and Developmental Disabilities Monitoring Network found that approximately 1 in 150 children in multiple areas of the United States are living with autism (Centers for Disease Control and Prevention, 2007). The classic three characteristics of autism include impaired social interaction, impaired communication, and restricted repetitive and stereotyped behaviors (APA, 2000). Tomchek and Dunn (2007) argued that sensory processing disorder can be considered a fourth characteristic because it is so frequently seen in children with autism.

Given the growth in diagnoses of autism, the probability that occupational therapy practitioners will work with both children and adults with this condition also is increasing. Practitioners working in school systems, private pediatric practices, home health, and mental health programs increasingly will be asked to provide occupational therapy assessment and intervention for persons with autism. Across settings and throughout the lifespan, the ability to intervene effectively at both the macro (system) and the micro (individual and family) level will require skilled and knowledgeable clinicians. According to the American Occupational Therapy Association (AOTA, 2005a), "Occupational therapy is well positioned to provide services to children and youth with behavioral and psychosocial needs and their families" (p. 5). Because much research is being done and the field is changing quickly, occupational therapy practitioners must continually update and enhance their knowledge of evidence-based, effective strategies to help persons with autism to lead meaningful and productive lives. Practitioners also need a model of practice that can guide clinical decision making.

Development of social skills often is a concern of parents, teachers, occupational therapy practitioners, and persons with ASD who recognize that this is a major obstacle to functional performance and lifestyle

satisfaction. The literature argues that although social skills are a necessary precursor to social, emotional, and cognitive development, many children with ASD do not receive adequate social skills training (Klin, Volkmar, & Sparrow, 2000). Much of the literature focuses on school-based programming (Bellini, 2008), and a meta-analysis of this research suggests that "school-based social skills interventions are minimally effective for children with ASD" (Bellini, Peters, Benner, & Hope, 2007, p. 159). Low generalization effects often are cited as a problem with existing social skills programming (Barry et al., 2003; Bellini et al., 2007; Kalyva & Avramidis, 2005).

Bellini et al. (2007) recommended that to increase the effectiveness of social skills programming for children with ASD, the length of the program should be increased, instruction should be provided in the child's natural setting, the intervention strategies should match the child's specific skills deficits, and intervention fidelity (actually implementing the stated programming) should be increased. This article describes a program that occurs outside of the school environment; uses individualized goals to enhance social skills; and assures fidelity through

### Meet the New Chairperson

**Asha Asher**, MA, OTR/L, has provided pediatric therapy services in four countries (United States, Canada, Belgium, India) and currently works with Sycamore Community Schools in Cincinnati, Ohio. Ms. Asher has presented at the American Occupational Therapy Association Annual Conference & Expo on the topics of handwriting (2002), inclusion of students with disabilities (2003), transition to work (2006), and emergency evacuation of students with disabilities (2007). She has worked as adjunct faculty with the occupational therapy and occupational therapy assistant programs in Cincinnati, addressing topics of autism, sensory integration, and cultural diversity. In 2003, Ms. Asher was awarded Affiliated Faculty of the Year by Xavier University in Cincinnati. She has served on the editorial board of *The American Journal of Occupational Therapy* since 2004 and as the Education and Research liaison of the Developmental Disabilities Special Interest Section Standing Committee from 1999 to 2002. Ms. Asher received her occupational therapy degree from Seth GS Medical College in Mumbai, India, and has a master's degree from the University of Southern California. ■

a structured outline of components of group sessions, a review of graduate student plans for sessions, and direct observation of implementation by a doctoral-level clinical supervisor.

## Background

The Lifestyle Performance Model (LPM) is based on the belief that quality of life, achieved through a harmonious lifestyle, is the single most important focus in living. The identification, support, and development of a person's activity repertoire based on strengths, skills, and interests enhance quality of life. Activities or occupations can be categorized into four domains: self-care and self-maintenance, intrinsic gratification, reciprocal interpersonal relatedness, and societal contribution. According to the LPM, harmony among the four domains results in quality of life. The environment is viewed as having the capacity to demand, facilitate, and hinder occupational performance (Velde & Fidler, 2002).

When using the LPM to assess an individual's quality of life, a Lifestyle Performance Profile Inventory (LPI) is completed. This semistructured interview gathers data about activities that provide a holistic summary of an individual's lifestyle, the activities he or she participates in, and the individual's perception of how these activities affect his or her quality of life. Interview prompts based on each of the four domains (Velde & Fidler, 2002) are available for both adults and children. The LPI can be done with the person or, in the case of children or less verbal adults, with the help of a parent or knowledgeable caregiver. Results are summarized by domain, strengths and weaknesses in each domain are identified, and these can then be used for goal setting. If other standardized or nonstandardized assessments, including chart review, are also done, these are incorporated with data gathered from the LPI to form a Lifestyle Performance Profile.

The LPM is viewed as a top-down approach that can be used with other frames of reference such as sensory integration, behavioral, and cognitive behavioral. For example, after determining that a person has a need to learn activities that will meet needs for reciprocal interpersonal relatedness and that problems with tactile defensiveness are keeping him or her from being close to people, a therapist may choose to integrate sensory integration strategies into the person's intervention goals.

## Method

Research on the use of the LPM has been conducted with both adults and children (Baldwin, Clark, Mitchell, Velde, & Wittman 2006; Carter et al., 2004; Kampa, Kennedy, Velde, & Wittman, 2003), and based on these studies and the authors' personal experience, a group program was designed to enhance social skills for children with ASD. The interprofessional project was created by one faculty member from the psychology department and one from the occupational therapy collaborative model at a public, mid-sized, southeastern university as part of a psychological services center

operated by the psychology department. Group participants paid a modest fee for participation, and the remainder of the cost was subsidized by the psychology clinic and the occupational therapy department. Graduate students from both programs were recruited to assist in the development of group activities as well as to lead the groups. Eight group sessions lasting 1-1/2 hours each were held in spaces provided by the psychology clinic during the spring semester. Participants were 10 children from 2 to 12 years of age who received a diagnosis of ASD from a physician or clinical psychologist as well as their siblings with no disabilities from 4 to 8 years of age, who frequently served as role models during group activities.

The cognitive functioning skills and degree of autism varied in these children. For example, several of the younger children did not speak and were not able to easily participate in or enjoy group activities. Some of these participants, as well as some of the older children who had fewer verbal skills, spent some time in one-on-one individual care while participating in some of the group activities. On the other end of the spectrum, most of the children enjoyed and participated in all of the scheduled group activities. The LPM was adapted for use as a theoretical guide for program planning and implementation.

All parents of participants were interviewed before the group began by a member of the project team. Using principles and strategies suggested by several AOTA publications (AOTA, 2002, 2005b, 2006), we asked parents to share what activities of daily living, instrumental activities of daily living, education, leisure, play, and social participation their child liked and disliked and goals they had for their child. This information was used throughout the group as a guide to activity planning. The LPM domains were renamed to fit the needs and understanding of this unique group of children; thus, self-care and self-maintenance became "taking care of myself"; social contribution, "doing something for others"; intrinsic gratification, "things I like to do"; and reciprocal interpersonal relatedness, "playing with others."

Student leaders selected general themes for each group session, such as transportation, dinosaurs, wild animals, space, and the ocean. Because group participants were cognitively able, imaginative themes were successful. These themes were selected because the children had inherent motivation to respond to them. Each week's session then included several different activities designed to fit the domains. All group sessions included a "circle time" in which participants sat and listened to a story while eating a snack in order to give them practice for doing this activity at school. Table 1 shows some examples of activities done in each domain that fit the theme of the week.

Because all of the children in the group needed to develop interpersonal interaction skills, activities designed to meet needs in the reciprocal interpersonal relatedness domain were emphasized. Tasks that required the social skills for sharing of materials, taking turns, introducing self to others, and being responsible for one another were an essential part of the development and implementation of each session. Table 1 also provides a schedule for one night's session as an example of how activities were matched with needs and domains. Because many of the participants had sensory processing and behavioral challenges, play-based intervention activities with embedded sensory components that incorporated vestibular, tactile, and proprioceptive input were used (i.e., the red light-green light game, play dough, coloring), and individually designed behavioral reward systems were used for some children. Because several participants were picky eaters, as is common in autism, snack time was used to encourage the children to try new foods. Apple slices that served as "spaceships" on Outer Space Night were a favorite!

Goal attainment was measured each week by one assigned student leader who marked the goal as achieved or not achieved. Weekly oral or e-mail feedback to parents was provided in general (e.g., what group activities took place) and in specific (e.g., their child's behavior, their child's progress toward his or her individual goals and objectives). Activities that the participants could engage in at home that would facilitate generalization of skills learned in the group were recommended to parents when appropriate.

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**Table 1. Sample activities during the group program.**

Time	Activity	Description	Domain
5:30–5:50	Introduction	Children will be given nametags, and will review a visual cues poster and behavioral rules and expectations. The children will be put in dinosaur groups for stations. We will review names and have the children tell their favorite dinosaur.	
5:50–6:05	Stations	Children will participate in three stations: 1. Dinosaur red light–green light game in the hallway upstairs 2. Digging for dinosaur fossils in play dough 3. Using a springboard to fly like a pterodactyl They also will take off their shoes and put them back on.	<ul style="list-style-type: none"> <li>• Interpersonal relatedness</li> <li>• Self-care</li> </ul>
6:05–6:30	Coloring dinosaurs and discussing them	Children will be in three groups to complete this activity: 1. The children will color a dinosaur picture. 2. The children will gather in a group to discuss their pictures and dinosaurs.	<ul style="list-style-type: none"> <li>• Intrinsic motivation</li> <li>• Social contribution</li> <li>• Interpersonal relatedness</li> </ul>
6:30–6:40	Restroom	Children will wash hands.	<ul style="list-style-type: none"> <li>• Self-care</li> </ul>
6:40–6:55	Snack	Children will eat snack, listen to a book about dinosaurs, and discuss the book if there is time.	<ul style="list-style-type: none"> <li>• Self-care</li> <li>• Interpersonal relatedness</li> </ul>
6:55–7:00	Closing	Children will fill out an assessment of the evening's activities. Leader will wrap up session and give parents feedback on the group.	

## Results

Outcome assessment of the groups indicated that the participants enjoyed all activities. At the conclusion of each group meeting, children were surveyed about their opinions with a 3-point Likert scale with facial expression visual aids. The children rated activities such as hand washing and shoe tying that were incorporated to increase functional performance in self-care and self-maintenance as their least favorites, whereas those activities designed for intrinsic gratification were the most liked. Interestingly, activities that encouraged reciprocal interpersonal relatedness were rated as enjoyable by participants. Postgroup interviews with 15 parents gave positive responses to Likert questions (1 = poor to 5 = very good/satisfied) about their child's progress ( $M = 4.13$ ,  $SD = 0.74$ ) and their feelings about the programming in general ( $M = 4.93$ ,  $SD = 0.258$ ). Parents also reported (1 = definite no to 4 = definite yes) that they would come back to this program again ( $M = 3.8$ ,  $SD = 0.414$ ). Eighty-eight percent of goals set for participants were met over the course of the group.

## Discussion

Recommendations for the future include further investigation of the LPM with group and individual interventions for children with autism. The model not only shows promise through the current group application, but also seems a particularly apt match for children with autism because the challenges they often experience in adaptive functioning, leisure skills, and social relationships are key elements of the LPM (Rhea et al., 2004). This model also could serve as a functional framework for goal setting, education or intervention planning, or even future planning, especially in relationship to challenges in adaptive behavior and effective transitional planning. Other recommendations include extending the overall length of the groups to at least 12 weeks and further exploration of effective ways to measure outcomes. The use of a community facility, such as a children's gym or YMCA, might enhance generalization of skills learned and decrease social stigma.

## Conclusion

Many of today's intensive intervention programs for children with autism follow a curriculum that is focused on structured, behavior-based table work, drill and practice of rote skills, and academically related tasks (Maurice, Green, & Luce, 1996). Although these are necessary and important life skills, the LPM and other functionally focused models may bring needed emphasis to quality of life and reciprocal teaching activities oriented toward supporting existing interests, life enjoyment, satisfaction, and the use of meaningful occupations and sibling or peer relationship building for children with autism. A need for this type of approach for autism was documented by Gernsbacher (2006), who called for reciprocity—looking at the world through the

eyes of the person with autism rather than insisting that the person change to fit the typical environment. Autism educational and therapeutic intervention has strongly emphasized intensive drilling and practice programs for many years. Currently, however, there may be a slight swing toward a more person- and family-centered approach to teaching and support. As family input becomes increasingly valued in the educational planning process, parents may be more interested in seeing changes in natural environments—changes that relate to their real life in the natural context of home and school—as opposed to a sole focus on a curriculum focused on more abstract and potentially less generalizable skills (Schwichtenberg & Poehlmann, 2007). The LPM as a functional, quality of life-focused model of practice may assist clinicians in this process as they provide assessment and intervention for clients' performance skills and patterns, including habits, routines, and roles (AOTA, 2002). ■

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