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Providing Early Intervention Services in Natural Environments

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by Juliann Woods

A child's first word is often marked with photos, video or audio recordings for the baby book, phone calls to grandparents, and multiple opportunities for a repeat performance for everyone who missed the exciting occasion. It is a moment to remember. For infants born with communication delays, however, this moment is delayed.

Communication is the most frequently identified delay for children with developmental disabilities (National Early Intervention Longitudinal Study [NEILS], 2007), and ASHA has just completed new policy documents on early intervention (see sidebar, p. 16). These documents reflect changes in legislation, social policy, and evidence-based practice that have occurred over the past 20 years. One of the most significant changes is in the area of service delivery. ASHA's new documents (ASHA, 2008a, b, c, d) provide guiding principles to help clinicians provide services that respond to these changes in contemporary practice, with services that are:

- Family-centered and culturally and linguistically responsive (aligned with each family's unique situation, culture, language/s, preferences, resources, and priorities)
- Developmentally supportive and promote children's participation in their natural environments (appropriate for child's age, cognitive level, strengths, family concerns and preferences)
- Comprehensive, coordinated, and team-based (effectively integrated to meet the needs of the child and family)
- Based on the highest-quality evidence available (merger of highest-quality, most recent research with professional expertise and family preferences)

The second guiding principle—providing services in the child's natural environments—focuses on the participants, setting, and context for early intervention.

Natural Environment Intervention

"Natural environments" is the term used in the Individuals with Disabilities Education Improvement Act, Part C (IDEA, 2004) to refer to settings that are typical for infants and toddlers without disabilities or delays. It is used as a contrast to more traditional treatment settings—such as clinical or medical-based programs—and includes families' homes, early care and education programs, and other community settings where families spend the most time with their children.

The natural environments paradigm is a consultation-based delivery of supports and services in which the speech-language pathologist acts as consultant, supporting the child and family's communication within their everyday activities and events.

With this change in focus from more traditional treatment settings, families with infants and toddlers eligible for and choosing to participate in their states' Part C early intervention programs find that services and supports—including speech-language and audiology treatment—are provided in the locations where the families typically spend their time, rather than the families having to go to

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appointments at multiple locations on different days. The most frequently identified natural environment location for families nationwide is in their homes (NEILS, 2007).

The new set of ASHA early intervention documents address the concept of the natural environment, and include many changes related to providing services. The term natural environment describes much more than a location for the service—it does not mean, for example, that the SLP moves the clinic to the home by taking a bag of toys and treatment materials into the living room. Instead, the concept includes the context for intervention, which is the child and family's typical and valued activities and events, and includes parents and caregivers as partners in the child's communication activities.

In a typical scenario, a partnership develops between the SLP and parents or other caregivers. Family members or caregivers offer information about their typical day, the child's communication opportunities and expectations, the child's and family's preferred activities, and any challenges. In turn, the SLP shares information and resources, and coaches the parents about including communication activities throughout the child's day, with content individualized to meet the specific needs of the child.

In this intervention model, typical routines such as getting dressed, walking the dog, picking up toys, getting the mail, eating a snack, or going to the store, serve as meaningful and functional opportunities for learning communication, social interaction, and other developmental skills. Children practice skills throughout the day as they communicate what they want, see, do, and enjoy during those common and repeatable exchanges.

A Process, Not a Place

Although "natural environment" seems to refer to a location, it is actually the process that is most important. Central to the process is the tenet that children learn through participating in their everyday activities and meaningful experiences with their family and caregivers. Authentic interactions that are interesting and fun result in more frequent and longer engagement, with subsequent positive outcomes for the child and family. When caregivers maximize learning opportunities in the child's daily routines and activities, the child has many opportunities for intervention every day, throughout the day, and in a meaningful and responsive manner.

Families realize benefits from the emphasis on natural environments. They don't have to set aside special treatment time or acquire special materials when intervention is accommodated within the family's daily routine. No matter how many unexpected events come up or activities change in any given day, the same familiar and necessary routines involving communication take place and can be used to enhance the child's growth and development.

Team-Based Services

Multiple professionals work together on a team with the family to develop the individualized family service plan (IFSP) and provide early intervention services in the natural environment. The team is responsible for selecting the most appropriate service delivery model based on the specific needs of the child and family.

In some instances, one professional on the team is designated as the primary service provider (PSP); this model helps avoid fragmentation of services and frequent home visits from multiple professionals (e.g., audiologists, educators, occupational and physical therapists). With this approach, which involves "role release" and "role extension," one professional is designated to provide services across disciplines, and the other professionals provide consultation to this designated primary provider. An SLP on such a team may serve as either the primary provider or consultant; when the child's main needs are communication or feeding and swallowing, the SLP should be designated as the primary service provider (ASHA, 2008b).

The designation of the PSP should be a team decision and individualized for each child and family. It is a viable model if it includes careful consideration of which team member offers the best match of expertise and relationship with the family, and is not based only on logistics, such as availability or cost. When using the PSP model, the team must communicate regularly to support one another—as well as the child and family—to ensure maximum progress.

All team members, whether acting as the primary service provider or as a consultant, focus on the interactions between the caregiver and child, rather than only on delivering services directly to the child. Embedding intervention into the family's identified routines throughout the day is the core feature of service delivery in the natural environment.

Facilitating Learning for Caregivers

Clinicians may want to adopt the following five adult learning strategies, based on the work of Malcolm Knowles, noted theorist and writer in the field of adult education. These strategies are

consistent with a natural environment process and support interaction between the caregiver and the early intervention provider.

1. ***Agree on learning priorities and roles.***

   Functional and meaningful child communication goals reflecting the family's priorities are critical. A thorough exploration of the caregiver's objectives for the child will enhance the development of goals for consultation and lead to clear, relevant, and jointly established expectations. Agreeing upon the learning priorities promotes collaboration.

   Establishment of goals, however, is not the only learning support needed for caregiver-implemented intervention. It is equally critical to clarify the role of the caregiver as intervention provider. It is important for SLPs to describe and demonstrate their role as consultant (rather than direct-service provider) to caregivers at the beginning of the relationship; a thorough understanding of the concept will decrease miscommunication later.

2. ***Join in rather than take over.***

   SLPs should look for ways to join in the caregiver-child interactions, rather than expecting the caregiver to observe or join the SLP-child activities. Active learning opportunities set the stage for informed discussion and problem-solving. Join a dad as he and his son walk the dog, or the child care teacher as she and her group play with building blocks. Your observations of how the caregiver provides and uses opportunities for communication enhance your ability to share evidence-based and individualized strategies, such as environmental arrangements or contingent imitation.

3. ***Build on the caregiver's strengths.***

   Learners keep and use new information more easily when they integrate the new ideas with what they already know (Bransford, Brown, & Cocking, 1999). Maintaining the caregiver's current routine or activity sequence will facilitate ease of learning. Anchors for learning are plentiful when the family or caregiver participates in identifying opportunities to embed different intervention strategies or outcomes. The routine sequence and use of everyday materials serve as learning anchors for the adult. Incorporating limited modifications or additional opportunities is easier within a familiar and comfortable framework.

4. ***The relationship does matter.***

   SLPs should not expect the caregiver to take risks early in the process of developing a relationship. Although there are some "just do it" learners who are ready to try anything, most benefit initially from supports. Confidence and motivation will grow from success in embedding intervention, improvement in the child's skills, and positive experiences with the consulting process. As trust in the consulting relationship increases, so does the likelihood the adult learner will try new ideas.

5. ***Provide specific and meaningful feedback to enhance competence.***

   Adults tend to prefer to learn one concept at a time, and they learn the concept best by applying it to relevant problems (Knowles, 1995). This tendency becomes more pronounced with age, during periods of illness or exhaustion, and when dealing with multiple priorities. "More isn't better" when the adult can't remember how or when to use the information. Learning to embed intervention opportunities in daily routines is a complex process, and caregiver competence typically will not result after a single brief conversation or demonstration. Parents and caregivers may not have had training in child development, disabilities, intervention strategies, data collection, and principles of instruction and reinforcement, or had multiple opportunities to practice intervention strategies with feedback from mentors and teachers. Help parents and caregivers to build competence by using instructional techniques that build their confidence. Feelings of inadequacy resulting from the complexity of the task inhibit learners and reduce the frequency of their attempts.

Working in the Natural Environment

SLPs working in early intervention need to have training on teaching adults, coaching caregivers, and providing consultative services. The ASHA early intervention documents identify multiple knowledge and skill sets that support the SLP in the roles of consultant, family educator, and team member. These knowledge and skills are in addition to—not replacements for—skills in other, more traditional, roles. For example, traditional practice emphasizes child-focused intervention; in natural environments intervention, the SLP must be fluent with child-focused intervention and have skills in teaching other adults, using effective and relationship-enhancing instruction.

Much of what SLPs are sharing or demonstrating about early intervention is new and often complex information for parents. Information may need to be shared more than once, in a variety of formats, applied to multiple settings and situations, and revisited as new circumstances occur. It's not sufficient, for example, to model an activity with the expectation that parents will then be able to repeat the activity after observing it.

The presentation of information should always be meaningful to the caregivers and individualized for their priorities and interests, their daily routines and activities, and their preferred places for the child to learn and play. There are no "one-size-fits-all" handouts or activities that will support all adult learners. The SLP should use aids that help the learner organize the information and relate it to previously stored information; for example, a visual schedule for bath time with key vocabulary helps the caregiver remember "when" in the routine to label and offer choices, as planned during a session with the SLP.

SLPs also must present information at a pace that supports implementation. Systematic presentation of one concept at a time, demonstration and practice of that concept, and opportunities for feedback and problem-solving will help the adult learner build from knowledge to application and, more importantly, to generalization of the concept. Comprehension and use of the concept or strategy are further enhanced when competing demands (e.g., new or unfamiliar routine or activity, need to engage other children or siblings, limited time) are initially minimized. Often, caregivers learn the mechanics of a specific strategy that could be embedded in a child's routine, but are unable to use the strategy fluently because they have not had adequate practice and feedback on how, when, and where to use it. The learning curve for adults is maximized when the environment is arranged for their success.

Building the Evidence Base

As SLPs have gained familiarity with the concept of natural environments, questions about implementation have evolved from basic information about the meaning of the construct to more challenging issues. They seek solutions to real-world situations: What works best for which children? How do I support caregivers so that intervention occurs throughout the day? What environmental arrangements support early interactions?

The early intervention knowledge base increases when researchers and providers seek answers for "how-to" questions generated from practice. And answers are beginning to emerge. As summarized in the new ASHA guidelines (ASHA, 2008b), the evidence base is expanding and consensus is building on recommended early intervention methods and strategies. Increasing evidence supports parents as effective communication and play partners, with improved child outcomes as the result (Kaiser, Hancock, & Trent, 2007).

As the field advances, multiple intervention approaches are available for replication (see sidebar, p. 15). Early intervention in the natural environment differs based on theoretical perspectives (developmental or behavioral), role of the clinician (primary service provider or consultant), contexts (embedding in routines or natural learning opportunities), strategies for child intervention (responsive interaction or applied behavior analysis), and ways of facilitating caregiver participation (modeling with feedback or conversations). SLPs need to vary approaches for different children and families based on disorder type, age, other individual needs, and available evidence.

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Web Resources

TAcommunities
The National Early Childhood Technical Assistance Center (NECTAC) Part C Community of Practice site includes the documents developed by a national work group, links to presentations by various researchers describing components of the models under their development, state plans for implementation, and a bibliography database on natural environments.

Center for the Advanced Study of Excellence
This site provides a primary coaching model and tools for implementation, along with many research

and practice resources for enhancement and promotion of family-centered services and supports.

Project TaCTICS
This site describes intervention based on family-guided routines, offers resources and family stories illustrating the use of the model and materials, and provides links to recent research results.

References

American Speech-Language-Hearing Association.(2008a). Core knowledge and skills in early intervention speech-language pathology practice. Available from www.asha.org/policy.

American Speech-Language-Hearing Association. (2008b). *Roles and responsibilities of speech-language pathologists in early intervention* [Guidelines]. Available from www.asha.org/policy.

American Speech-Language-Hearing Association. (2008c). *Roles and responsibilities of speech-language pathologists in early intervention* [Position Statement]. Available from www.asha.org/policy.

American Speech-Language-Hearing Association. (2008d). *Roles and responsibilities of speech-language pathologists in early intervention* [Technical Report]. Available from www.asha.org/policy.

Bransford, J. D., Brown, A. L., & Cocking, R. R. (1999). *How people learn: Brain, mind, experience, and school.* Washington, DC: National Academies Press.

Hebbler, K., Spiker, D., Bailey, D., Scarborough, A., Mallik, S., Simeonsson, R., et al. (2007, January). *Early intervention for infants and toddlers with disabilities and their families: Participants, services, and outcomes.* Final report of the National Early Intervention Longitudinal Study (NEILS). Available from www.sri.com/neils/datacollect.html.

Individuals with Disabilities Education Improvement Act of 2004, 20 U.S.C. §1400 *et seq.*

Kaiser, A. P., Hancock, T. B., & Trent, J. A. (2007). Teaching parents communication strategies. *Early Childhood Services: An Interdisciplinary Journal of Effectiveness, 1*(2), *107-136.*

Knowles, M. S. (1995). *Designs for adult learning.* Alexandria, VA: American Society for Training and Development.

Knowles, M. S., Holton, E. F., & Swanson, R.A. (1998). *The adult learner: The definitive classic in adult education and human resources development*. Boston: Butterworth-Heinemann.