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Side by Side: Transdisciplinary Early Intervention in Natural Environments

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Summary

Working in the natural environment means a shift in practice, but enhanced outcomes.

Part C of the Individuals with Disabilities Education Improvement Act specifies that infants and toddlers should receive early intervention services in settings where children without disabilities typically participate.[1] Making a shift from providing services in traditional settings to more family-centered locations and the accompanying changes in parent-professional relationships continues to challenge many practitioners, including occupational therapists. We depart from therapist-directed interactions to a side-by-side collaboration with families, creating the agenda together. The outcome we seek under Part C is to support parents' capacity to "captain their own ship" and not become dependent on professionals for all decision making. Making the shift takes time, organizational support, creativity, passion, and openness to role release with other team members.

Occupational therapists possess the clinical skills to engage very young children and help move them along the developmental continuum in accordance with their unique needs. However, that is only a part of what is required to embrace practice in natural environments. This article explores how working and *being* in natural environments—developing Individualized Family Service Plans (IFSPs), mentoring staff, coaching parents, collaborating in community settings—uses the fundamentals of occupational therapy practice.

Back to Basics

What does our training in occupational therapy provide that remains a part of each of us throughout our careers? For each person the answers may differ; however, one principle stands out: Activities of daily living (ADL), including play and social participation, are the foundation for learning opportunities that have meaning to both the client (child and family) and practitioner. They offer timely prospects for intervention and support within occupation-based practice. Working as part of a transdisciplinary early intervention team in natural environments, in which all team members' skills merge in a unified approach, means we

need not ever stray far from this principle. We don't have to create the environments—families do that for us. As stated by the parent of a child with special needs, "The family is the natural habitat of the child—any child, whether or not they're developmentally disabled.... Let's not underestimate the therapeutic value of the home—an organic, learning and teaching environment created by amateurs—people who are in it naturally, for the love."[2]

Applying another key principle familiar to occupational therapy practitioners, that learning takes place in the context of relationships, assumes that infants and toddlers with disabilities need services that enhance rather than disrupt the typical activities unique to each family. Recognizing this principle, siblings, extended family members, neighbors, familiar service people, and even pets become potential agents of developmental change. Thus combining the two principles of *relationship* and *areas of occupation* as likely learning opportunities provides a lens through which we perceive the child's world; hear from parents their hopes, dreams, and concerns; and craft the journey of early intervention. As often found when therapists hesitate to adopt service delivery in natural environments, letting go of our "tools of the trade" (e.g., ramps, tables, swings, and specific toys) can be difficult when practitioners first begin working in natural environments with children and families.[3] Yet an astute mentor might say, "Go in bare-handed and see what happens." By entering a child's home with an array of objects or activities carefully planned to help achieve a certain goal, therapists or other team members may counteract their own intentions. When we remove the activity, we reduce the likelihood that the family will re-create the child's performance. By going in bare-handed, a therapist must identify and show parents the therapeutic activities that can be sustained between visits. Although it sounds simple, asking a parent to find a ball, a box with a hole in it, or a stuffed toy will be much more empowering than coming and going with these things in a bag. Or perhaps dramatic play with siblings is an activity of occupation that can be enhanced to address cognitive and motor needs. Occupational therapy practitioners can bring their "therapeutic use of self" to *all* team and family interactions, coaching and guiding rather than directing and doing.

In an excellent resource for transdisciplinary early intervention practice, *Coaching Families and Colleagues in Early Childhood*,[4] Hanft, Rush, and Shelden describe indicators of coaching. Coaching should be collaborative (voluntary, mutually trusting participation between learner and coach), reflective (actively engaging in discussion and analysis with nondirective feedback), and reciprocal (shared observation resulting in two-way learning). Coaching is also performance-based, assisting individual learners (a family member, caregiver, or colleague) to acquire and refine desired skills and knowledge. Lastly, it is context-driven within the array of family—centered settings and situations in natural environments. Like letting go of the accoutrements of clinic-based practice, coaching, too, enhances the development of a side-by-side relationship with the parent and child.[4]

Supporting Families in Natural Environments

To be an effective early intervention team member, occupational therapists may look beyond their own discipline for insights and strategies that support a new "way of being." The study of infant-family mental health explored by Jeree Pawl, PhD, and others helps us to understand that it is not so much *what we do* but *how we are* that may have the greatest impact on the baby in the context of his or her family life.[5] To become comfortable moving beyond traditional practice (i.e., teaching children new skills in a therapy session), we realize that our interactions with teammates and families must play a central role in our early intervention. As we interact with our teammates, so will they interact with each other and the families they support. As occupational therapy practitioners interact with and care

for parents and other caregivers, so will parents and caregivers treat their children. A Hollywood movie described this as "pay it forward." For example, exploring with a teammate why a mother withdraws during a home visit might assist the therapist to do the same kind of reflection with the mother to understand her own child's behavior. In addition, the mother's interactions with the therapist—supportive and reflective—might translate to her interactions with her challenging child. Finding and practicing a reflective way of being within early intervention relationships enhances the evolution of a shared view of the child's development by the entire team, including the family. Asking open-ended questions, whether during home visits with parents, in team meetings, or in supervision with staff, promotes mutual understanding and respect for individual differences and perspectives. Probes such as "And what happened then?" "What do you think that meant?" "How did you discover that?" or "It sounds frustrating" provide a way for the therapist to show that he or she respects and attaches importance to another's experience.

We begin to see that broadening our perspectives on the meaning of therapy and intervention paints a picture, not of a therapist and child sitting opposite one another at a table, or with the baby in the practitioner's lap, but of the practitioner (even slightly blurry!) in a rich milieu of infant, toddler, child, family, home, and community, redolent of movement, touch, sounds, smells, and emotion. This is the world open to practitioners in natural environments!

We may also consider the innovations of T. Berry Brazelton, MD, and his Touchpoints model[6] that relate to individual practice and community collaboration. Brazelton and his colleagues have built on half a century of pediatric research and practice to create a framework for preventive thinking (a *wellness* rather than a *deficit* model) that values the individual strengths and capabilities of parents and children. We recognize Touchpoints as those episodes, in conjunction with a developmental spurt, that cause disorganization or regression in the baby and disruption of the family system. For example, a 9-month-old who is on the verge of mastering a gross motor milestone (pulling to stand) may suddenly be more fussy and not sleep through the night. This behavior affects the family as a whole. The role of intervention is to help parents recognize these episodes as contributors to the child's new skills. From these a period of reorganization occurs, once again regulating the family system and returning to the uneven but ongoing course of development.

In the Touchpoints model, building relationships with parents is of equal importance to the content of developmental interventions.[6] Service fragmentation and family isolation occur when systems focus on deficits and fail to integrate services of various professionals. Parents of children with or at risk for developmental disabilities are especially vulnerable in these environments because they may be receiving services of two or more different professionals or early interventionists. In the transdisciplinary team each member works to ensure a seamless service delivery for the family through role release, reflective interactions with each other and the family, and naturally occurring learning opportunities of the natural environment. In addition, if we build relationships with parents using the child's behavior as our language, mutual trust evolves. For example, "I notice that James really cries when his brother has a friend over. What do you think he's trying to say? I'll bet we could figure out some ways to help the situation." If practitioners use what they know about treating the whole child in the context of his or her family, and incorporate this knowledge as part of a transdisciplinary team, all can participate in a more caring, seamless system.

Evaluation in Natural Environments as Family Support

If we think of evaluation as an early intervention touchpoint, we see that it has the potential to disrupt the family system—possibly more than any other touchpoint. Even though the initial evaluation brings the opportunity for increased knowledge about a baby's special needs, it can also be extremely stressful for families. Grandparents may experience as much worry as parents during this process. Traveling to clinics or specialists' offices may mean additional stress for a particular family, especially if there are other family members' needs to address. Conducting the evaluation where and when a child is most comfortable is one way to alleviate anxiety and begin to build a positive relationship with the family. By using an ecological model of evaluation, the therapist can determine those interactions between the infant or toddler and significant persons in the environment in the context of daily activities that support the child's best performance.[7] If we use play as our modality in the evaluation process in natural settings, parents also begin to see how early intervention will take place, and to freely ask questions about future interactions. Involving the parents and other family members in the evaluation process also establishes the importance of including them from the outset of intervention. Under congenial conditions and with the therapist's clinical reasoning about the family's unique challenges, a therapeutic effect and cornerstone of the relationship has been formed.[8]

Receiving the written report of their child's developmental strengths and needs during the initial IFSP process presents added anxiety for parents, even though they have desired the results for a long time. When professionals from multiple disciplines are involved in evaluating young children with disabilities, families often find it most helpful to have one integrated report rather than a sequence of unrelated descriptions of the child. The report must be written in a family-friendly manner without professional jargon. Having a family-friendly team report enables parents to appreciate, for example, how oral-motor development, feeding, and language are connected. They can also begin to understand the underlying sensory processing factors that contribute to the baby's difficulty focusing and self-calming and can visualize their role in the intervention process.

The IFSP Tells the Story

The IFSP provides a framework for all team models in early intervention. Interventionists discover and use *what is* rather than impose all things *new*.[9] The IFSP will reflect a partnership and a journey of shared learning that may be most effectively implemented through a transdisciplinary approach. When developing an IFSP with a family, outcomes, for example, reflect their hopes for the child's participation in home and community life ("We want our daughter to notice us") rather than discipline-specific objectives ("Jenny will look at her parents on prompting three of five trials"); *methods* describe coaching the parent within regular family activities rather than exclusively therapist-child interactions. *Locations of service* reflect the variety of places where learning takes place for all children (i.e., home, neighborhood, grandparents' homes, parks, shopping and restaurant venues, libraries, etc.). Importantly, the *frequency and duration of service* indicate a consultation model for the early intervention service providers. For example, if the team determines that direct occupational therapy at home to address the child's sensory processing is needed weekly for several months, that intensity and duration will be noted on the IFSP. If occupational therapy coaching for both the parent and primary interventionist toward adapting the child's routines to improve sensory modulation is the goal, a monthly visit may suffice. The role of service coordinators and their relationship with parents and providers bears significantly on the success of the IFSP process. The service coordinator may often be the first entrée of families into the system, setting the tone for future relationships, services, and parent-professional and professional-professional collaboration.

Finding successful service delivery approaches may take us beyond the traditional boundaries of therapy into situations that challenge families most. For example, a toddler with Down syndrome who refuses textured food may be more amenable to new foods as snacks at older siblings' baseball games. Another toddler with cerebral palsy who hesitates to use a walker may be more motivated if allowed to play in the front yard with peers and other parents. A single mother of twins may feel less overwhelmed by getting out of the house to appointments if she and the team find ways to streamline dressing time as well as to effectively respond to problem behaviors. Depending on the IFSP outcomes and needs of the child and family, the occupational therapist may be involved weekly or monthly, but always discovering and building on the parents' capacity to meet the developmental needs of their child within natural learning settings and exploring ideas with the team.

Engaging Families Versus Wearing a "White Coat"

Occupational therapy practitioners possess a wide array of abilities, skills, and knowledge to share with those with whom they work. Going into a home with an expectation of discovery, as opposed to the execution of a curriculum, means practitioners have begun to *be with* rather than *do for* the child and family. As Jeree Pawl said, "If you are thinking about your goal, you will not be able to hear the story the parent has to tell."[5] So, having a clinical plan *in mind* (and a "kit bag" of natural learning strategies) to explore with a family enables team members to be adaptive in natural environments. Listening to and learning from what the family has to say goes a long way toward designing effective early intervention for a child with disabilities. This way, the expertise of the occupational therapist, and more importantly, that of the parent, emerge through the family-professional relationship. For example, professionals need to reach parents and prepare them to recognize early plasticity in development through concepts such as overstimulation and threshold.[6] Nothing can be more stressful to a new parent than a crying or unresponsive baby. Helping parents identify the baby's cues leading up to a meltdown or withdrawal and discovering together the appropriate interventions can be immensely beneficial to the parent-child relationship. A mutually satisfying and nurturing relationship between parent and child is a boon to the entire intervention process, yet not always a traditional expectation of intervention. According to Brazelton, O'Brien, and Brandt, "If supportive providers can offer the necessary information and modeling for the parents to understand the infant's development and to enhance it, the providers can play a crucial role toward the success of the family system."[6]

Thoughts on Intervention in Natural Environments

As occupational therapy practitioners now considering the whole child in the context of his or her relationships and natural learning opportunities, we remember the importance of developmentally appropriate experiences tailored to the child's unique strengths and needs. In addition to motor, sensory, cognitive, and communication domains, we must understand each stage of the child's *emotional* development in order to create effective intervention activities and to engage the parent and child in nurturing, contingent, empathic interactions.[10] What Greenspan and Wieder described in *The Child with Special Needs*[11] as Floor Time offers a fertile, multifaceted approach to intervention, building on the functional, emotional capacities of each stage of early development. Their Developmental, Individual difference, Relationship-based (DIR) model, which incorporates Floor Time, is a good fit for practitioners in natural environments in that it addresses the child's sensory processing and uses play that is intrinsically motivating to the child (through parent coaching) as a primary intervention strategy. Floor Time fuels and relies on the affective, gestural, emotional interactions between parent and child to move up the developmental ladder. This approach is valuable in working with all children, and is especially critical for children with autism and

their families when rote skills and scripted behaviors show diminished qualitative impact over time.

Natural Environments Extend Beyond the Family Home

Relationships with community partners weave a fabric of opportunities for therapy in natural environments. Again, *how* we are is as important as what we say when we seek to develop connections with people and places offering everyday activities for young children with special needs. Outreach and information sharing at community forums, coordinating resources with other agencies and providers, and jointly planning professional development activities provide ways to increase awareness of family-centered early intervention and the role of the occupational therapist.

Consulting and coaching in childcare settings requires a partnership and collaboration with the provider (parallel process of mutual reflection—the quality of the relationship between the practitioner and the child care staff carries over in the staff-to-child relationships) rather than a disconnect created by treating the toddler in isolation from his or her peers. Respecting and listening to the childcare provider and developing a shared view of the child's development, will go farther toward achieving IFSP outcomes than one-to-one intervention with the child for limited weekly sessions. If we can support the relationship of the parent with the childcare provider, we have done the greatest service of all. *IFSP hint*: Listen to parents for phrases such as "I never seem to be able to get the full attention of Jed's teacher." This could be written into an IFSP outcome such as "Mrs. Thomas will have productive interactions with Jed's teachers."

Therapists and all early intervention teammates use many strategies to build relationships with organizations and individuals in the community. Offering to teach a "Mommy and Me" class may open more possibilities for children with developmental disabilities and their parents. The motto "inclusion begins at birth" means that children and their families should not have to take a separate path through life simply because a child has developmental differences; nor should their families have to experience a world not of their choosing. We underestimate the potential of parents of children without disabilities to support parents of those who do. A parent once said, "Going to all the regular classes was not always easy for me, but I could see how much my daughter loved it, so that made it okay. The day she took her first steps during playgroup there was not a dry eye in the place. It was like everyone had a share of her success." This is the power of natural environments that can teach us to look for what is best in each individual.

And So It Goes

The being and doing of early intervention will always offer rich rewards of relationships and memories. How we choose to approach our work and to empower others along their own paths affects the intrinsic benefits we receive. Transdisciplinary teamwork in settings families desire, focused around relationships and likely learning opportunities, holds unlimited potential for occupational therapists. Go in bare-handed and see what happens!

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Transdisciplinary Teams and the Scope of OT

A transdisciplinary model may be new to some occupational therapy practitioners. We asked Leslie Jackson, MEd, OT, AOTA's Federal Affairs representative and Practice associate, to answer some common questions about its role in delivering IDEA Part C services.

Q: What is the connection between a transdisciplinary model and the natural environment?

Early intervention, as established in IDEA, recognizes a cross-disciplinary approach as necessary to meet the needs of young children. A transdisciplinary model takes this a bit farther, with all providers working on common goals. It also allows for providing services in many different environments. A transdisciplinary model with this age group emphasizes how very young children learn—through natural learning opportunities that generally occur at unscheduled times during daily activities (not only at a set therapy time). A transdisciplinary model can also address learning across domains, recognizing that young children's development is interrelated and does not occur in isolation.

The Individualized Family Service Plan (IFSP) team identifies the child's goals and outcomes, the services, who will provide them and the methods by which they will be provided, as well as the location of those services. The natural environment—generally recognized as places where children without disabilities spend their time, such as home, day care, grandma's house, and other community settings—is expected to be used whenever possible.

The emphasis on natural environments is related to increasing efforts to limit the number and amount of time professionals interact with children and families. Cautions surround who decides who provides services and how professional scopes of practice and licensure requirements are respected while maintaining the best interests of the child. In transdisciplinary approaches, members of the team determine how to use a team-based perspective to achieve the goals for the child and family. Ideally, the team identifies a lead for a particular outcome, considering expertise and scope of practice of team members, then decides where the service will be provided. With regard to natural environments, team members work to embed their intervention activities into the family's ongoing routines.

However, in the name of providing services in the natural environment, some state lead agencies are bypassing the role of the IFSP team to make determinations for individual children, saying they will only use a transdisciplinary model that recognizes only certain providers. The states go farther and designate that only certain providers can be leads. In this model some states have relegated occupational therapy only to a consultative role. If a transdisciplinary model is implemented properly, following the tenets of IDEA, there may be times when the occupational therapist should be working directly with the child, and other service providers become the consultative pieces.

The critical issue is who makes the decision and whether it is individualized to the child's and family's needs. The team should be talking about what to do and who should do it, but that's difficult when the state agency says "we will only do this and not that."

Q: Why have some states bypassed IFSP team decisions on how to provide intervention and family support?

States are reacting to pressure to move services into the community as well as to control costs. The natural environment requirement is not new. When states began implementing Part C in the late 1980s, many therapy providers were found in clinical settings. A Part C agency would contract with those settings, which is where the kids and families would receive early intervention services. With subsequent reauthorizations of IDEA, particularly in 1997, there was a growing emphasis on services in the natural environment. AOTA has long been a supporter of that policy. At the same time, the individual needs of children should not be affected by unfair restrictions on the breadth of options for occupational therapy service delivery.

Q: Is a clinical environment ever considered "natural"?

Some states consider anything clinical as not natural, which is not always the case. The clinic can be a natural environment for some children in certain situations, depending on the issue. If the child is hospitalized for a medical reason, then the hospital might be the natural environment for that child, for that issue, for that period of time. However, if eating a meal with the family is the outcome, then it's most appropriate to work on that outcome at home. The setting should be determined on an individualized basis, which has always been the intent of Congress.

Q: What if the IFSP team believes a particular child would be best served in a clinical environment, but the state disagrees?

In that instance, IDEA says the team would include a justification on the IFSP as to why occupational therapy services will be provided in the clinical setting. As with all decisions, the expectation is that it's not permanent and the IFSP team will revisit the decision on a regular basis. They will work out a plan with the family to ensure generalization of skills across settings so the child can participate in family and community life.

Q: What if the state or administrator does not support the team's decision?

Team members should trace back the steps to see who is actually determining that the IFSP team cannot make the final decision. Is this coming from a local supervisor or from the state agency, which has oversight responsibility? What is actually being said, and how is the information being shared? What kind of training and support are being offered to IFSP teams by the state agency? Next, go to the state's Web site for the policy. In most cases the policy is correct relative to IDEA, but someone is misinterpreting it or not explaining it well to others.

If there are concerns about the role of occupational therapy (e.g., being used only as a consultative role or being used to provide services that are not occupational therapy), advocacy may be necessary to change state policy. IDEA requires that occupational therapy and other services be provided in accordance with state law or regulation. Practitioners should know what their state practice act allows to determine what they can legally provide and to make arguments for policy or regulatory changes that ensure full and appropriate use of occupational therapy.

Types of Service Delivery Teams

Transdisciplinary services: This model assumes that any given team member can incorporate basic things into his or her interventions that other members may have expertise about. For example, if the educator is working on play, and the occupational therapist has concerns about the child using two hands, basic activities from the occupational therapist can be incorporated into those sessions. Evaluation and planning are shared across disciplines and team members. This model does not assume that all team members can provide the same services, although some role release is expected. Team building, ongoing communication, and collaboration are required for this model to be successful.

Multidisciplinary services: This is a traditional model in which team members have well-defined roles and usually provide distinct services. Although members may discuss a "shared" client, each professional conducts a separate evaluation, selects discipline-specific goals, and then provides intervention to address these goals.

Interdisciplinary services: In this model, discipline-specific roles are still emphasized and relatively well-defined, but joint decision making is used. Team members collaborate on evaluation, planning, and implementing a plan. Ongoing communication among team members about the child and family and their changing needs is central to this approach.

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