Natural Environments:

A Letter From a Mother to Friends, Families, and Professionals

Dear New Early Intervention Friend:

It seems that I use the phrase “new friend” frequently since our youngest son, JP, was born. Almost every time I meet another family who has a child with special needs, there is a connection that comes from sharing similar experiences, hopes, dreams, tears, disappointments, triumphs, and even battles. I feel a similar connection with the early intervention professionals whom I have met and who have helped us. Our circle of friends has expanded during the three years our family has been in the early intervention program.

Until JP was born, our lives were hectic and fairly “normal.” We were living in a small two-bedroom apartment with three children, and my husband was going back to school and trying to start his own business. You can imagine our surprise when we learned that we would have a sixth person joining our family. Surprise soon turned to concern as I was placed on bed rest for two months due to problems with the pregnancy. The concern proved to be well founded when JP was born. He had trouble during delivery and had to be resuscitated and placed on oxygen. I never even got to hold him. He was whisked away to the nursery and placed in an incubator. I will forever have frozen in my mind the scene as the pediatrician, nursery supervisor, and my husband came into my room the next morning. I thought that they had come to tell me that JP had not made it through the night. I was almost relieved when the doctor told me that he suspected JP was born with Down syndrome. At least he had a fighting chance to live.
Our lives were like a pyramid before JP was born. We had a nice, broad, solid foundation of family on which our lives were built. After JP was born, I felt like the pyramid flipped and we were trying to balance on the tip. We were almost instantly involved with cardiologists, geneticists, ear/nose/throat doctors, occupational therapists, speech therapists, physical therapists, and social workers. We were expected to become experts on Down syndrome, early intervention, insurance, Medicaid, and more.

As parents we felt the urgency to do as much as possible, as quickly as possible. Time was our enemy. We wanted to do it all, hoping that something would “fix it quick.” JP was just six weeks old when we first started receiving services in what was described as a traditional or medical model. Everything centered on this cute little fellow who did not even want to wake up to eat. Our son’s life seemedly had become everyone’s life. Our family lost its identity as a family, and his schedule dictated our schedule.

The therapists were very nice and highly recommended. Unfortunately, they worked with each other while I watched. The therapists did not often include me in the actual “hands-on” therapy so I was not comfortable trying to solve what they did in the therapy session. I did not know what to do, or when or how or why to do it. I was not an expert on child development, but I did know that a person who is developing slowly or has a disability needs lots of opportunities to practice. JP was not getting enough of those opportunities by going to the clinic just once or twice per week.

As parents we wanted more, more, more for JP but there was no way that we could continue to add more appointments or specialists to our lives. We had four kids, I was working two part-time jobs, and my husband was trying to start his own business and going to school. “More” just would not have worked. We needed a different plan. We needed a plan that included JP as an active participant in our family—not the opposite. We wanted JP to enjoy playing with his brother and sisters and not have them resenting the extra time JP’s therapy took away from family time. We wanted to count how many crackers JP could eat with his friends at church during snack, not the number of blocks JP placed in a bucket during three-minute intervals.

When services began to be provided in our natural environments, we got that new plan. Now, JP gets services at home with us and at his child care. It has been wonderful. This allows both our family and the child care providers to work (or should I say play) with him at home, church, grandparents, or anywhere else we may go during the day. We are able to
The therapists did not often include me in the actual “hands-on” therapy so I was not comfortable trying at home what they did in the therapy session. I did not know what to do, or when or how to do it.

I take what we learn and use it anywhere. Supporting JP’s learning in daily activities is now a part of our lives and not our lives.

To understand how to make this change, we sat down and looked at the routines and activities our family would typically encounter each day. Now, instead of trying to carve out special time each day, we have learned to look at what JP and all of us would normally be doing and embed his interventions into those activities.

We started simple. We were trying to get JP to hold things and bring his hands together. Rather than sitting on the living room floor and handing objects to him, we let him hold the diaper or powder every time we changed his diaper. It became a game to him and because he changed his diaper a lot during the day, he had many opportunities to practice “bringing objects to midline.” It did not add any time or hassle and he enjoyed this activity. The routine expanded as JP learned new skills. Soon he transferred the object from one hand to the other, and then we began playing peek-a-boo. He laughed and learned to pull the diaper off his face when I said, “pee-pee.” He began taking his turn and eventually initiating the game. Changing his diaper (more times than I could count) gave us opportunities to practice many different and important motor, social, communication, and problem-solving skills.

As JP got a little bit older, his skills and goals changed. First we were trying to get him to walk and then walk with his feet close together. The physical therapist recommended we walk along the railroad ties at the child care. Yet our family spends incredible amounts of time at the baseball field during the spring, making it difficult to spend extra time elsewhere. Therefore, we needed a way to practice at the ball field and we found the perfect one! We call it “bleacher walking.” JP was encouraged (as if he needed it!) to walk back and forth on the bleacher lengthwise. Walking between two rows of narrow seats automatically made him narrow his base. It was simple; he enjoyed it, and all kids do it naturally anyway. This activity did not create a barrier between him and the other kids, it did not take any extra time, it worked, and it kept me from having to struggle with him to do something he didn’t want to do.

For me, using a natural environment model has meant not being on a constant guilt trip because I had not done 30 repetitions of this, spent 20 minutes doing flash cards, and another ten minutes practicing pincer grasp with little beads. Natural environments are not just places for services like home and child care, but the natural routines and activities the child does...
Natural environments are not just places for services like home and child care, but the natural routines and activities the child does in those places. It is the process by which service providers inform, support, and encourage the family to use typically occurring routines and opportunities to help their child be successful. Because the professionals in our lives looked at what we could do, when and where we could do it best, and then showed us how to do it ourselves, working on JP’s skills has become such a natural part of our lives. I know that JP receives learning opportunities, without adding stress to our family (or at least not much).

It is important for you to know that working in natural environments is not a one-size-fits-all model. Each family has to examine what they value and what they need. For us, the best places have been a mixture of home, child care, and church, and the best routines are those we do with all the kids (such as meals, dressing, and play). The important point is to keep trying until you find the match that works for your child and family. And remember to enjoy your child and the chores of daily life.

I have learned over the last three years of raising a child with a disability that although I find myself eagerly (and sometimes very fearfully) looking toward the future, I must make that journey one step at a time. For my family, those initial steps toward the future began with JP receiving services in the same world in which he was going to live and grow: this world—our world—not a sterile, segregated, clinical world.

Sincerely,

Lorna
Script for Explaining an Evidence-Based Early Intervention Model

Dathan D. Rush
M'Lisa L. Shelden

This BriefCASE provides talking points and a script for how to explain an evidence-based model for providing early intervention services.

Introduction

The Individuals with Disabilities Education Act (IDEA), Part C regulations guide how early intervention services for infants and toddlers with disabilities and their families are to be provided. The IDEA also requires the use of evidence-based practices (U.S. Department of Education, 2007) that happen in real-life settings (i.e., natural environments), that families have access to a team of individuals representing multiple disciplines, and that early intervention practitioners work alongside parents to help them and other important people in the child’s life support child learning and development within and across all daily life activities.

This BriefCASE provides talking points and a script for how to explain an evidence-based model for providing early intervention services. The model described in this document has three interdependent components (1) natural learning environment practices, (2) coaching as an interaction style, and (3) a primary coach approach to teaming. This three-component model meets the requirements of Part C of the IDEA and uses family-centered helping practices as the foundation for the supports. While it is possible to use natural learning environment practices, a coaching interaction style, and a primary coach approach to teaming separately, the blending of all three components maximizes effectiveness and efficiency while also ensuring accountability for high quality supports and services.

Natural learning environment practices include use of everyday activity settings, child interests, and parent/adult responsiveness to the child. Everyday activity settings are used as the sources of early learning because they provide frequent opportunities for child use of existing abilities and development of new skills. Child interests are used because children are more likely to focus on a person or activity longer if they are motivated and engaged, which in turn, provides more practice and learning opportunities. Parent responsiveness involves ensuring that parents know and understand what they do that supports their child’s learning within and across activity settings.

Coaching is an evidence-based adult learning strategy used for interacting with parents and other care providers to recognize what they are already doing that works to support child learning and development as well as building upon existing or new ideas. Rather than telling the other person what he or she needs to do or doing something only to with the child, individuals using coaching start with what the other person knows and is doing in order to develop and implement a joint plan that meets the needs and priorities of the person being supported through coaching. Coaching involves asking questions; jointly thinking about what works; does not work, and why; trying ideas with the child; modeling with the child for the parent; sharing information; and jointly planning next steps. A coaching...
interaction style is as "hands-on" as necessary, and also ensures that what the practitioner is doing and discussing with the parent is meaningful and functional within the context of everyday life and builds parent capacity to support child learning and development during all of the times when the practitioner is not present.

A primary coach approach to teaming ensures that parents receive consistent, unduplicated, timely, evidence-based, individualized, and comprehensive information and support. A primary coach approach to teaming also ensures that every family has access to a full team of practitioners that minimally includes an early childhood educator or special educator, occupational therapist, physical therapist, speech-language pathologist, and a designee responsible for service coordination. The primary coach is the team liaison who supports the parent in promoting the child's participation in everyday life routines and activities, which for all children naturally serves to foster skill acquisition across multiple developmental domains.

As a primary coach needs the expertise of another team member, then that team member and the primary coach participate in a joint visit. Team communication and support occur through regular team meetings in which all team members participate.

This BriefCASE includes both talking points and a more detailed script with multiple options for how to explain an evidence-based model of early intervention to families. The script and talking points may also be used by program managers and early intervention coordinators for purposes of child find, public awareness, and recruitment of professionals.

A sample way to phrase this information:

*Hi, my name is __________. Thanks for choosing (Insert name of your Early Intervention Program), for your family. I'm glad you allowed me to meet with you today to explain our program. I wanted to let you know that I am a __________ and I have a degree in __________. I have been working with (Insert name of your Early Intervention Program) for ___ years (or substitute with ___ years of experience working with children and families) I have worked with more than ___ families in my years in the early intervention program. I have a lot of experience and information about child learning and development, so please feel free to ask me questions about anything that is on your mind. If I can't help you right away, I will get the information or support you need from one of my colleagues. I will be your primary contact but I work with a team of specialists who have a variety of backgrounds and qualifications such as special education, early childhood education, occupational therapy, physical therapy, speech-language pathology. I also work with social workers, psychologists, and nurses, so if at anytime we need to talk with them or get information from them or use them, I can pull them in easily."

Research in child learning and development has helped us see the value of everyday activities that occur in your home or in your community as sources for children's learning opportunities. Our approach supports you in finding the best opportunities for promoting your child's growth and development. These opportunities center around your child's interests and your family's
everyday activities. Research has shown that, just like adults, children are more likely to pay attention to and learn during activities that they find fun and interesting. (Insert an example relevant to family.) Because you (and other caregivers as appropriate) are an important person in your child’s life, our time together will be spent identifying the things you do or want to do in order to provide your child increased opportunities to take part in activities that he/she finds interesting.

Content: When and Where We Meet

Talking Points

Content of visits
- When we meet
- Where we can meet

A sample way to phrase this information:

You and I decide together where to meet based on what we are focusing on at the time. Since we know children are learning all the time in their everyday activities, we try to meet you in those places and during those activities you identify as learning opportunities. I have met families in a variety of places based on what we want to accomplish. (Insert example specific to family’s activity settings). I can come to your home, but I have the flexibility to meet with you in other settings too. I have met families at parks, McDonalds, Family Resource Centers, child care settings, schools and even where they work. Even though the places we meet may change, the methods I use to help you and other people in your child’s life are the same.

Other additional content for clarification (Select examples. Do not use all bullets.)
- Park: Sometimes we may pick a location such as a park because that is a setting you go visit and your child really likes. We would look at ways to promote his or her development in that setting.
- Child Care: If your child goes to a child care program I may rotate visits between your home and the child care center so we can all work together and share what is happening in these settings.
- At Lunch: I have even met parents on their lunch hour if we were doing some planning, paperwork, or discussions around a practice such as behavior strategies, where we agree it might be better or less distracting.

Parent Role

Talking Points

Parent role
- Active parent participation is key
  - Identify activities, learning opportunities, and practices
  - Try some of the practices we talk about
  - Decide which practices work or what needs to be done differently
- Parent reflection promotes improved child participation

A sample way to phrase this information:

You know your child best, so you and I will be working closely together to figure out what opportunities your child has to take part in your daily activities, what he/she likes to do, and what you and other members of your family are doing and can do to help him/her take part in these activities. So when we meet, we’ll be talking about what you’ve been doing since our last visit and how, or if, it has helped your child do the things that he/she likes and needs to do. During our visits we may try some things together to help him/her take part in playtime, mealtime, getting ready in the morning, taking a bath, or other activities that are important for him/her and your family. I can also talk with you about child development, parenting ideas, and resources in the community that could help your child’s learning. Before I leave, we will always come up with a plan for what we are all going to do until the next time we get back together.

Practitioner Role

Talking Points

Practitioner role
- Primary person/coach supported by a team of skilled professionals
- Focus of intervention
  - Identify activities, learning opportunities, and practices with the parent
  - Try some of the practices we talk about
  - Find out which practices work and what we might need to think about doing differently
A sample way to phrase this information:

Even though I will be the person from (Insert name of your Early Intervention Program) that you will probably see most often, I am a member of a much larger team of highly experienced and skilled professionals. They support me as I work with you. If you and I have a question we can't answer or need some specific help, you and I can ask for help from the team. When we ask for support, I can go back and talk with all of the team members during our weekly team meeting or I may talk with one or two of them and share what you and I have tried or talked about and get some ideas, or another person from the team may come with me to visit you.

You may be wondering or others may ask you why we just have one person from (Insert name of your Early Intervention Program) who comes to see you on a regular basis. The reason is because the latest research tells us, and families report that it's more beneficial to have just one person supported by a team of people than it is to have a number of people working directly with you and your child. When a lot of people ask you to do something else or something different, it's time taken away from the things that you and your child enjoy doing or need to do together, or worse, it may mess up your routine and activities.

Another way to explain this component:

At (Insert name of your Early Intervention Program) we understand the value of participating in activities that your child and family find fun and meaningful, therefore we want to reduce the number of people coming into your home by having only one person, me, be a primary contact person. This notion of a primary person is based on research that points out how conflicting ideas brought in by multiple people can be confusing and not helpful to families.

Although I will be the one you have contact with at (Insert name of your Early Intervention Program) we have a team of professionals that supports me. They will work with me when we have questions that I take back to the team and when necessary they will work with both of us to identify the information that we need to continue to support your child. Our (the team's) focus will always be to support you in obtaining the information or the skills you need to support your child. We want to support all the things you are doing well and we want to provide information in a way that matches how you want information. Together we will develop goals and actions plans to meet those goals. Sometimes I or someone else on the team will provide the needed information, and other times we will look at different resources that are available in your family or in the community.

How We Compare

<table>
<thead>
<tr>
<th>Talking Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>How we compare</td>
</tr>
<tr>
<td>• Interest/asset based early childhood intervention and therapy versus other approaches</td>
</tr>
<tr>
<td>• Child-initiated versus adult-directed</td>
</tr>
<tr>
<td>• Active parent participation/parent capacity building</td>
</tr>
</tbody>
</table>

A sample way to phrase this information:

I described several important differences between the kind of therapy or intervention you receive at (Insert name of your Early Intervention Program) and what you might get from other professionals. First, our intervention uses ordinary life situations (dressing, eating meals, brushing teeth, riding in the car, eating at a restaurant, etc.) and the opportunities for children to learn within those situations as the best ways for children to learn. Other approaches teach skills or behaviors in isolation or separate from how children will use them in real life. For a child to practice going down stairs on her way to play outside is much more meaningful than for a child to go up or down steps in a therapy room or even in your home when it is not part of a real life situation for the child.

A second important difference is that (Insert name of your Early Intervention Program) interventions use not only ordinary life situations, but also those that children prefer and that keep their interest for longer periods of time. The longer the child stays involved in an activity the more the child has an opportunity to learn more complex behaviors. In other types of therapy and intervention, the therapist decides which activity the child should do and spends a lot of time and energy trying to get the child to do those things. The result is that the child is often bored and frustrated with the activity, which limits learning opportunities.

A third important difference between the (Insert name of your Early Intervention Program) approach and others is the role parents play in their children's learning. With the (Insert name of your Early Intervention Program) approach, parents are provided guidance and support on how to use everyday activities to promote...
learning so that your child is receiving learning opportunities anytime you interact with him/her. The (Insert name of your Early Intervention Program) staff do not have to be present for your child to be learning and developing. In other approaches, the therapy happens only to the child with or without the parent involved. The child gets far less intervention with little impact on his/her development. What questions do you have for me about our program or our approach?

Some families like to call or email when questions come up. Between visits you can reach me at ______ or my email ______ as listed on this business card (Hand family your business card). All of us at (Insert name of your Early Intervention Program) travel every day for appointments, so you may need to leave a message. I will get back with you as soon as possible. Let’s go ahead and schedule our next visit.

REFERENCE


AUTHORS


ACKNOWLEDGMENT

The authors wish to thank the members of the Family Infant and Preschool Program Family-Staff Communication Action Group for their contributions to the content and format for the original version of the script.

Take A Closer Look:

The Ten Myths about Providing Early Intervention Services in Natural Environments

The Individuals with Disabilities Education Act (IDEA) has always contained the provison that early intervention services for eligible infants, toddlers, and their families be provided in natural environments. The reemphasis on natural environments in the 1997 reauthorization of the IDEA, however, has caused states and early intervention programs to increase efforts to ensure that Part C services are provided in natural environments. This emphasis on natural environments and, in some cases, the move away from segregated, clinic-based service delivery models have been challenging. This article presents 10 common myths about service delivery in natural environments and the literature available to refute them. Key words: coaching, early intervention, natural environments

McLisa L. Shelden, PT, PhD, PCS
Assistant Professor of Physical Therapy
Department of Rehabilitation Sciences
College of Allied Health

Dathan D. Rush, MA, CCC-SLP
Clinical Assistant Professor
Lee Mitchell Tolbert Center for Developmental Disabilities
University of Oklahoma Health Sciences Center
Oklahoma City, Oklahoma

The reauthorization of the Individuals with Disabilities Education Act (IDEA) in 1997 reemphasized the requirement that states ensure that Part C services for eligible infants and toddlers be provided in natural environments. For many states this meant shifting the services from segregated, clinic-based programs (ie, therapy clinics, hospitals, developmental centers) to environments such as children’s homes, child care centers, and preschools. This requirement, however, has not only meant a shift in where services are provided, but also a change in how services are rendered. The shift from clinic-based early intervention services to supporting children and their care providers in everyday experiences has had major implications for many states including changes in policy and procedure, funding priorities, and training for providers and families.

Most early intervention service providers have been trained to provide—thus most families receive—services in a model where therapy is delivered to the child as the family watches, remains in the waiting area, or, at best, receives a home program to administer outside of therapy sessions. The transition of services to natural environments as required by the IDEA, Part C, has not necessarily been smooth, as therapists and parent groups have insisted that services are more effective and the needs of the child are best met in clinic-based settings.1

Inf Young Children 2001 1(4) 1-13
© 2001 Aspen Publishers, Inc.
The move from segregated, clinic-based services to a service model that promotes learning across natural environments continues to be challenged across the country. In the recent proposed rules for reauthorization of the IDEA, 200 of the 350 comments regarding Part C implementation pertained to issues surrounding service provision in natural environments. Many programs continue to have difficulty supporting this process and wish to challenge or change the law. Care providers, service providers, service coordinators, and early intervention administrators across the country have strong opinions related to serving infants and toddlers with disabilities in natural environments.

The goal of early intervention should be to support children in being and doing—being with people who want and need to be with and doing what they want and need to do. Many care providers, service providers, service coordinators, and early intervention administrators, however, do not agree. Although others may support this position and the mandate of the IDEA, Part C, they experience opposition from colleagues and families.

Based on experiences and interactions both with those who agree and those who disagree with the above and how of service delivery in everyday settings and the literature, the authors have compiled 10 myths about early intervention services in natural environments. The purpose in writing this article is to identify literature that supports service delivery in natural settings, not to describe how to provide these services. Existing myths are not limited to these 10; however, these are the most frequently mentioned as barriers to shifting service delivery models from clinic-based delivery to service delivery in natural environments.

**MYTH 1: A LACK OF CURRENT LITERATURE EXISTS TO SUPPORT EARLY INTERVENTION SERVICE DELIVERY IN NATURAL ENVIRONMENTS**

Ample current literature to support early intervention service delivery in natural environments does exist. Appropriate literature exists within several related areas that can be applied to service provision in natural settings. These related areas include, but are not limited to, naturalistic intervention, generalization, inclusion, home-based services, and consultation with care providers.

**Naturalistic Intervention**

Naturalistic interventions are those strategies that identify and use opportunities for learning that occur throughout the child's natural activities, routines, and interactions; follow the child's lead; and use natural consequences. A brief synopsis of the literature available related to naturalistic intervention indicates that child-initiated instruction, activity-based approaches, and integrated interventions are as or more effective than adult-initiated instruction, directive approaches, and pull-out therapy.

Bruder and Dunsㇷ゚ for example, concluded from their research that natural environments can provide rich learning experiences for all children and that educators and service providers must change their approach to more naturalistic interventions in order to better serve children with developmental disabilities and their families.

We are discovering that early interventionists who have been trained to create and work within formal, planned learning opportunities for children may need to significantly reconceptualize their practice in order to help families make the most of their children's learning opportunities in natural environments.

McLean and Cripe reviewed 56 studies published between 1986 and 1995 involving communication development in children under 6 years of age. A total of 1,034 children participated in these studies. Generally, McLean and Cripe found that naturalistic interventions resulted in improved skills for young children at early stages of communication development. Because communication is a social act, the goal of language intervention is to provide opportunities for experience and practice in the use of communication skills with partners across environments.

Theorists looking at motor skill acquisition have questioned the hands-on approach and have supported interventions that emphasize attaining
needed skills for functional gains in real-life settings. The majority of studies conducted over the last 15 years that have examined motor intervention in children with disabilities under the age of 6 years have not supported hands-on interventions as an effective means for improving functional outcomes, supporting the need for additional research in the area of naturalistic motor interventions.

Generalization

Hanna's definition of generalization as the ability to respond appropriately in untrained conditions including the transfer of appropriate responses across persons, objects, materials, natural consequences, stimuli, and time. Intervention to improve specific skills without attention to generalization in daily life skills can be inefficient because learning does not always transfer from one environment to another. Because children with developmental disabilities often have difficulty generalizing and maintaining new skills, interventions that build on nonfunctional skills have not generally led to meaningful gains. Thus, infants and toddlers with disabilities need to learn skills through high-frequency, naturally occurring activities in their environment. The provision of services in natural settings decreases the problems related to generalization because the child has an opportunity to use and practice skills in the very environments in which the child needs to use those skills (i.e., task-specific intervention). It also gives the service provider an opportunity to use the toys and materials available in the environment to model activities that can be repeated by the care provider. Interventions within natural environments with key care providers and familiar toys and materials allow for generalization of skills, learning opportunities with natural consequences, task specificity, and functional outcomes.

Inclusion

The research on inclusion of children with disabilities in general education classrooms also provides support for early intervention service delivery in natural environments. Inclusive settings provide opportunities for enhanced natural learning with typically developing peers. Segregated or more restrictive settings do not prepare children for less restrictive or inclusive settings. In fact, the concept of "leaving one's way out of" a segregated environment to be included with typically developing peers has shown that most often, children never get out. Although opponents to service provision in natural environments argue that a continuum of options should be available including segregated settings, a continuum that includes segregated environments legitimates and prolongs their existence.

Three general points can summarize the available literature on early childhood inclusion related to service delivery in natural environments. Inclusive settings versus segregated settings result in (1) improved quality of care for all children, (2) increased numbers and a greater variety of learning opportunities, and (3) a readily available continuum of typical peer models.

Attitudes of care providers, skills and knowledge, and support systems are factors that contribute to positive results in inclusive settings. When the attitudes of care providers are positive, most likely the attitudes of the children and parents will be positive. When professionals in the inclusive setting are knowledgeable and systems are in place to support these professionals, inclusion is more often successful.

Home-based services

A child's home is an example of a natural environment where young children live, learn, and play. Literature indicates that home-based services are more cost-efficient, more effective in achieving child outcomes, can be performed, and are preferred by more parents than clinic-based services. Service providers often propose that higher quality services can be provided in clinic-based settings as alternative settings can be judged as substandard by those providers who have limited experience or appreciation of a variety of living conditions. For providers to believe that intervention is more meaningful in a clinic setting than a
natural one because the clinic is cleaner, has better toys, or provides a less distracting environment leads to the question, "Better for whom?" Many providers are uncomfortable in natural settings because these environments are different from what they are accustomed. Therapists must expand their views to embrace children and families where they are and provide meaningful support across a wide variety of settings and conditions. Where families live and the degree of parent involvement certainly affect the types of learning opportunities available, however, most children experience a variety of learning opportunities regardless of where they live.19

Parent involvement in intervention may be a viable time-saving alternative to clinic-based services. The time saved through the use of indirect approaches makes it possible for more children to be served at a lower cost per child.20.21.22 Children can be seen less often because intervention is ongoing and not separate from life experiences. Intervention is not tied to a specific person at a specific place at a specific time.

Research15 has shown that early intervention efforts conducted in the home with care providers can result in significant increases in developmental skill acquisition for children who are normal, at high risk, disadvantaged, and with previously diagnosed conditions. Parents can learn to use a variety of intervention techniques with appropriate supports.23.24 Furthermore, parents prefer home-based services. Mothers rate home visits as the most helpful service component, and a significant correlation has been found between the overall rating of program helpfulness and decreases in parenting stress.25.26

Consultation with care providers

The role of the service provider when providing services in natural environments is built on a coaching or collaborative consultation model in which the service provider supports the care providers and other members of the team. Campbell suggests that contemporary practice sup-
ports that "therapists view themselves as advisors, counselors, and purveyors of information to families ... (rather) than as direct care providers, and that they need to maintain a long-term perspective.

The concept is more akin to being a coach or personal trainer than a hands-on provider."27.28 Coaching leads to commitment, involvement, and positive relationships between the service provider and care providers.29-30 Consultation provides an interdisciplinary perspective, is necessary for generalization, is required to maximize efficiency and effectiveness of intervention, and is not the preferred intervention strategy of most therapists.31-32 When using collaborative consultation effectively the care provider is the true facilitator of change or improvement in the child's skills and development.33

Collaborative consultation supports interventionists' use of an interdisciplinary perspective to develop congruent programs and delegate appropriate activities to other team members. Rainforth states that effective consultation involves "delegation, not abdication, and each therapist maintains accountability for the information and skills shared."34 This statement is consistent with the definition of a true team that consists of a small group of people with complementary skills, common purposes, goals, and approaches for which they hold themselves jointly accountable.35

Although interventionists believe that they engage in collaborative consultation, McBride and Peterson36 found that almost half of all observations revealed that interventionists were using direct therapy. Furthermore, Buysse et al37 found that the majority of interventionists involved in their study indicated that they practice consultation, though they actually preferred giving advice in a directive manner versus an indirect, problem-solving approach.38-39 Interventionists must learn that personal preferences cannot dictate an intervention approach or service delivery model. Interventionists must use contemporary literature and research to guide intervention decisions. Literature specifically addressing service delivery in natural environments is just beginning to emerge. The existing literature on naturalistic intervention, generalization, inclusive
child care practices, coaching and collaborative consultation, and home-based versus clinic-based settings, however, supports the rationale for intervention across a variety of settings and activities where children and their families live and play.

**MYTH 2: REQUIRING THAT EARLY INTERVENTION SERVICES BE PROVIDED IN NATURAL ENVIRONMENTS Restricts PARENT CHOICE AND IS NOT FAMILY CENTERED**

Family-centered care is one of the guiding principles associated with the implementation of federally mandated early intervention programs in the United States. The incorporation of family-centered care was meant to view the relationships among the child, care providers, and service providers with the care providers at the center and the service providers as collaborators. Family-centered services mean that families are not just consumers of services, but guide practices as well. Care providers are to be regarded as important decision makers in the early intervention process and function as equal team members. When addressing the perceived loss of family-centered services and parent choice when providing services in natural environments the following issues are most often raised: the true meaning of family-centered services, opportunities for parent-to-parent interaction, and the need for respite and socialization.

**Family-centered services**

The philosophy of service delivery in natural environments is consistent with the philosophy of family-centered care in that the approach supports families by promoting their strengths and addressing their needs and concerns within the context of the family and the community. The goal of family-centered care is to enable the family to meet their own needs. Family-centered service provision is not about doing something for families that they can do for themselves or their children. Research has shown that care providers desire information that is easy to incorporate into their daily lives and assists the child in being a part of the family and the community.

**Parent-to-parent interaction**

Providers in clinic-based programs often argue that services in specialized settings allow parents to informally network while their children receive therapy. Service delivery in natural environments does not prohibit parent interaction. If this service is identified by the team as necessary to achieve an identified outcome, it must be included on the individual family service plan (IFSP). Parent interaction should not be limited to chance encounters in a parking lot or clinic waiting area. Parents need opportunities for interaction with other parents, both parents of children with and without disabilities.

**Respite and socialization**

Parents also need respite and opportunities for socialization with other adults. Children also need opportunities to interact with other same-age peers. Therapy should not be the primary avenue to meet these needs. We must support families to identify respite and socialization opportunities within the context of their individual communities.

**MYTH 3: FAMILIES DO NOT RECEIVE STATE-OF-THE-ART SERVICES IN NATURAL ENVIRONMENTS**

In contrast, contemporary literature indicates that state-of-the-art services are most often provided in natural environments. Therapy practices have drastically changed over the last 10 years. During this time, therapists have been challenged to convert their practices from a clinic-based model to service provision in other settings. In the past, state-of-the-art services have been defined by clinical settings with the latest therapy equipment, private treatment rooms to inhibit distractibility, and therapists certified in popular therapeutic approaches. This definition has been replaced by naturalistic interventions that promote learning opportunities across environments with typical care providers and ordinary objects.
These environments include inherent distractions, such as ringing telephones, loud televisions, inquisitive siblings, barking dogs, and other opportunities for learning and generalization common to home and community settings. Providers are obligated to understand and plan for the need of children and care providers to learn strategies for functioning in environments where real life occurs.

**MYTH 4: CHILD CARE PROVIDERS IN COMMUNITY-BASED SETTINGS DO NOT HAVE THE EXPERTISE TO IMPLEMENT THE INTERVENTION PLAN**

All care providers can provide adequate intervention. Care providers can use appropriate intervention strategies with adequate supports. Wilcox and Shannon found that direct therapy without the involvement of care providers may not be valuable. Family-centered care emphasizes involvement of the care provider in intervention and supports service provision in natural environments. The extent and type of care provider involvement have emerged as strong predictors of child outcomes. Since the child spends the bulk of time with parents (or care providers), the more knowledgeable they are about child development strategies and activities, the greater is the impact of intervention. Useful information, ongoing technical assistance, and timely support increase the competency and mastery of the care provider.

Parents do not want to be seen as therapists who must find time within their day to conduct therapy exercises. If the focus of intervention is on increasing learning opportunities in existing or desired settings, instead of embedding therapy into everyday routines, this should be viewed as effective parenting, not as therapy.

As a nation, we are currently at a critical crossroads in our need for improved quality of child care for all children. More children than ever before are in out-of-home care. Educational, financial, and legislative support are necessary to improve the quality of child care for all children. Many of these child care issues are magnified when parents of children with disabilities seek competent out-of-home care. Due to the lack of community child care providers that are willing to accept children with disabilities, most care for children with disabilities is provided by a parent, extended family member, or neighbor. Of the few studies examining inclusive child care, the outcomes have shown that the quality of care for all children improves when a child care setting includes a child with a disability and receives adequate support.

**MYTH 5: SEGREGATED PROGRAMS ARE NATURAL ENvironments FOR CHILDREN WITH DEVELOPMENTAL DISABILITIES**

An environment need not include children without disabilities to be considered a natural environment. If a child with disabilities, however, is of the age requiring opportunities for interaction with same-age typically developing peers, readily identified or available alternative options (i.e., typical child care settings, play groups, community preschools) have been scarce. Segregated child care centers, special preschools, and pediatric therapy clinics have been considered as the only, or primary, setting for children with disabilities to receive services and have thrived in the past primarily because sufficient inclusive opportunities have not existed. Parents report many benefits for their children and themselves as a result of the child being included in typical settings such as increased expectations of their child, increased opportunities for meaningful socialization, and access to information about child development and parenting.

**MYTH 6: PROVIDING SERVICES IN NATURAL ENVIRONMENTS DOES NOT ALLOW FOR INTERACTION WITH OTHER PROVIDERS OR CO-TREATMENT SESSIONS**

The IDEA, Part C, requires a team of multiple disciplines working together because no one discipline has all of the necessary expertise required to serve children with disabilities and their families.
adequately. The intent of service provision in natural environments was never to promote a unidisciplinary approach; however, coordination of service delivery does become more complicated. Joint intervention sessions must be carefully planned and fully reimbursable. Just because providers are located in the same building, no guarantee exists that collaboration or interaction will occur. Opportunities for collaborative assessment, intervention, and problem solving must occur, whatever the setting.

**MYTH 7: THERAPIST SHORTAGES WILL BECOME MORE SEvere IF SERVICES ARE PROVIDED IN NATURAL ENVIRONMENTS**

When considering the issue of shortages, we must rethink service delivery and consider alternative solutions. If therapists are expecting to transplant existing service delivery models in clinic-based settings to natural settings, more therapists will be required. In a model that supports family-centered care, the decision of frequency and intensity shifts from the service provider to the multiple providers who care for the child, across the environments in which the child functions, and the supports needed by the care providers to achieve the desired outcomes. Research is inconclusive regarding how much therapy is necessary to achieve identified outcomes. Hart and Striffler stated that the idea of "more is better in terms of frequency and intensity of services and consultation or indirect therapy... is unfounded." Therapists tend to perpetuate these misconceptions by practicing the way they were trained. Thus, shortages may be caused, at least in part, by a program's preferred service delivery model.

**MYTH 8: IT IS AGAINST PROFESSIONAL ETHICS TO PROVIDE SERVICES IN NATURAL ENVIRONMENTS**

The transdisciplinary approach has been promoted in the literature as the preferred model of team interaction in early intervention in order to provide coordinated and comprehensive services to children with disabilities and their care providers. In a transdisciplinary model, team members use a role-release process to learn and work across traditional disciplinary boundaries so that one person, in collaboration with the family and other care providers, accepts primary responsibility for implementing the IFSP. The result is less intrusion into the family system, increased communication among team members, and consistency in the implementation of the intervention plan. Many providers have resisted the idea of transdisciplinary service delivery and claimed liability issues exist when teaching others intervention strategies. In a study by Rainforth, physical therapy practice acts in all 50 states were reviewed for language refuting the legality of role release when providing services using a transdisciplinary model. Rainforth found no practice acts limiting role release and also stated, "Although some physical therapists may remain apprehensive about liability when they engage in role release, we need to raise as much concern for acts of omission as acts of commission." Use of professional ethics as a reason for continuing to provide clinic-based services may reflect provider preferences related to a particular service delivery model and location, rather than a real barrier.

Another concern voiced by providers is that of maintaining the confidentiality of the child and family when providing services within the community. Providers must follow established protocol for ensuring that confidentiality is maintained regardless of the location of service. The difference is that conversations must occur early on to develop a plan for addressing potential situations that could breach confidentiality.

**MYTH 9: PERSONAL SAFETY OF PROVIDERS IS AT RISK IN NATURAL ENVIRONMENTS**

Providers must demonstrate respect for the variety of living arrangements of families in the early intervention program. At the same time, it is vital that services be provided in an environment where all involved will be safe. When services are pro-
vided within natural environments, the provider must make an objective evaluation of the safety of that environment giving every consideration to the diversity and values of the family. If the setting is determined to be unsafe by the provider or family, rather than returning to a clinic-based setting, multiple options may exist that will continue to support the child in a natural setting. These options may include joint visits with another provider or service coordinator, providing services in another natural learning environment within the community, or suggesting an alternate service time (ie, early morning). The bottom line is that providers should not enter into situations where they feel unsafe. Feeling unsafe, however, is not sufficient rationale to return to a setting that is necessarily more comfortable or convenient for the provider. Prudent judgment and common sense refute this myth.

**MYTH 10: SERVICES IN NATURAL ENVIRONMENTS COST MORE**

More children can be seen in one day in a clinic-based setting than when using an itinerant-type service delivery model.11 12 13 14 Driving time and cancellations are other factors that can contribute to costs.15 These increased costs, however, may reflect a program's preferred service delivery model, rather than reflecting a true shift to meaningful intervention in natural settings. When using a transdisciplinary service delivery model in natural environments, for example, more total children can be served because fewer providers are required to routinely serve each child.16 17 18 19 20 Children can be seen less often in natural environments as intervention by care providers becomes a part of daily life.21 Providing coaching and support across settings and care providers enables the people in the child's life to gain skills, knowledge, and confidence in supporting the child in learning and growing. Although minimal evidence exists to delineate the costs of service provision in natural settings versus clinic-based settings,22 the rethinking of service delivery as supported in current literature suggests services may actually be less costly in natural settings.

**CONCLUSION**

No longer should providers continue to use these 10 myths as excuses to provide early intervention services in ways that conflict with current literature or that are most comfortable or convenient for them. Providers must strive to rethink their intervention paradigms to support children with disabilities in being with people who they want and need to be with and doing what they want and need to do. The lessons we have learned from the literature and interactions with children and their care providers have given us a clear mandate to accept the challenge of remaining current and continually assessing and changing our practices. Current practice guides us to coach care providers in supporting the child's learning in everyday moments. If we continue to provide services as we did 5 years ago, 2 years ago, or even last year, we must question our usefulness and work harder to bridge current knowledge to everyday practice.

**REFERENCES**


non-school instruction in educational programs for
severely handicapped students. J Assoc Persons Se-
verely Handicap. 1983;8:71-77.
34. Brown L, Schwartz P, Udvari-Solner A, Frattura
Kampichler E, Johnson P, Jorgensen J, Guentewald L. How much time should students
with severe intellectual disabilities spend in regular
education classrooms and elsewhere? J Assoc Pers-
35. McGowan R. Children with cognitive impairments.
In: Campbell SK, Vander Linden DW, Palisano RJ, eda. Physical Therapy for
36. Shumway-Cook A, Woollacott M. Motor Control:
37. Dunst CJ, Bruder MB. Increasing children's learning
opportunities in the context of family and commu-
MB. Everyday family and community life and children's naturally occurring learning oppor-
1998;78:948-949.
41. Warren SP, Horn EM. Generalization issues in
42. Bricker D. Inclusion: how the scene has changed.
43. Odom S. Preschool inclusion: what we know and
where we go from here. Top Early Child Spec Educ.
44. Taylor SJ. Caught in the continuums: a critical analysis
of the principle of the least restrictive environment.
45. Smith BJ, Rose DP. Preschool integration: recommenda-
tions for school administrators. In: Policy and
Practice in Early Childhood Special Edu-
sions. Pittsburgh: Research Institute on Preschool
Mainstreaming; 1994. ERIC Document Reproduction
Service No. ED 374027.
46. Stein PS. Least restrictive environment for
preschool children with handicaps: what we know and
what we should be doing. J Early Intervent.
47. Bailey DB Jr, McWilliam RA, Buyse V, Wesley PW.
Inclusion in the context of competing values in early
47.
48. Bruder MB, Brand M. A comparison of two types
of early intervention environments serving toddler-age
children with disabilities. Inf Toddler Intervent.
49. Buyse V, Bailey DB. The identity crisis in early
childhood special education: a call for professional
50. Buyse V, Wesley P, Keyes L. Implementing early
childhood inclusion: barriers and support factors.
51. Diamond KL, Hestenes LL, Carpenter ES, Innes FK.
Relationships between enrollment in an inclusive
class and preschool children's ideas about people
1997;17:320-326.
52. Fink D, Fowler S. Inclusion, one step at a time: a case
study of communication and decision making across
program boundaries. Top Early Child Spec Educ.
1997;17:357-362.
53. Gallagher PA. Teachers and inclusion: perspectives on
1997;17:363-386.
54. Guralnick MJ. Early Childhood Inclusion: Focus on
55. Guralnick MJ. The Effectiveness of Early Inclusion:
Second Generation Research. Baltimore: Paul
H. Brookes; 1997.
56. Janko S, Potter A. Portraits of Inclusion through the
Eyes of Children, Families and Educators. Seattle, WA: Early Childhood Research Institute on Inclu-
sion, University of Washington; 1997.
C. Beyond microsystems: unanticipated lessons
about the meaning of inclusion. Top Early Child Spec
58. O'Brien M. Inclusive Child Care for Infants and
Toddlers: Meeting Individual and Special Needs.
59. Liguori/Craft B, Santos RM. Integrating effective
teaching literacy with literature on instruction in
the natural environment: Exceptionalit.
1997;17:139-141.
60. Odom S, Diamond K. Inclusion of young children
with special needs in early childhood research: the
61. Miller P. Segregated programs of teacher education
in early childhood: immoral and inefficient practice.
62. Yoder P, Kaiser AP, Goldstein H. et al. An explor-
tory comparison of milieu teaching and responsive
The Ten Myths about Providing Early Intervention Services


121. Law M, Cadman D, Rosenbaum P, Walter S, Russell D, Denver C. Neurodevelopmental therapy and upper extremity casting for children with cerebral...