

2014



Wendy Whipple, Program Specialist
With Support from the RRCP, Early Childhood Service Delivery Priority
Team

**KEY PRINCIPLES OF EARLY
INTERVENTION AND EFFECTIVE
PRACTICES IN NATURAL
ENVIRONMENTS: A CROSSWALK WITH
OCCUPATIONAL THERAPY
LITERATURE**

Many states have been evaluating their early intervention practices and undergoing system change to incorporate effective practices related to providing services within the natural environment, as well as implementing a primary service provider approach based on the family and child's needs. This document provides a crosswalk that illustrates effective early intervention practices and relevant statements from disciplines providing early intervention services.

This document highlights how occupational therapy literature supports the early intervention key principles and reflects how occupational therapy services align with high quality early intervention practices. It is intended to promote dialogue within the early childhood community about the key principles and provision of high quality early intervention services, which each profession provides within their profession's scope of practice.

The starting point for this document was the "AGREED UPON PRACTICES FOR PROVIDING EARLY INTERVENTION SERVICES IN NATURAL ENVIRONMENTS" document, which includes practices that support the key principles of providing early intervention services in natural environments. The document, developed by the Workgroup on Principles and Practices in Natural Environments, reflects practices validated through research, model demonstration, and outreach projects implemented by workgroup members. The document includes the consensus opinions of the workgroup members, who avoided endorsing any specific model or approach.

The national workgroup included Susan Addison, Betsy Ayankoya, Mary Beth Bruder, Carl Dunst, Larry Edelman, Andy Gomm, Barbara Hanft, Cori Hill, Joicey Hurth, Grace Kelley, Anne Lucas, Robin McWilliam, Stephanie Moss, Lynda Pletcher, Dathan Rush, M'Lisa Shelden, Mary Steenberg, Judy Swett, Nora Thompson, Julianne Woods, and Naomi Younggren.

Citations:

- Workgroup on Principles and Practices in Natural Environments (2007). *Agreed upon practices for providing early intervention services in natural environments*. OSEP TA Community of Practice—Part C Settings.
 [Agreed upon Practices for Providing Early Intervention Services in Natural Environments](#)
- Workgroup on Principles and Practices in Natural Environments (February 2008). *Seven key principles: Looks like/doesn't look like*. OSEP TA Community of Practice—Part C Settings.
 [Seven Key Principles: Looks Like/Doesn't Look like](#)

The principles identified in this document were cross-walked with statements from occupational therapy literature that supports the early intervention key principles. In some instances, the literature may use different terms to refer to the principles and practices. This document reflects statements found in American Occupational Therapy Association (AOTA) literature, as well as other resources, but it does not attribute meaning to those statements. References used in developing this publication are included at the end of this document.

Early Intervention Key Principles	Supporting Statements from Occupational Therapy Literature
<p>1. Infants and toddlers learn best through everyday experiences and interactions with familiar people in familiar contexts.</p> <ul style="list-style-type: none"> ● Learning activities and opportunities must be functional, based on child and family interest and enjoyment ● Learning is relationship-based ● Learning should provide opportunities to practice and build upon previously mastered skills ● Learning occurs through participation in a variety of enjoyable activities 	<ul style="list-style-type: none"> ● Occupational therapy works with children, families, and others to achieve health, well-being, participation in life through active engagement in occupations—activities of daily living (ADLs) and instrumental activities of daily living (IADLs)—such as education, work, play, leisure, sleep, and social participation. It facilitates the child and family’s participation in meaningful occupations that are desired and important in the school, family, and community contexts. ● Understanding the environments and contexts in which occupations can and do occur provides practitioners with insights into their overarching, underlying, and embedded influences on engagement. ● ADLs, sensory-based play, and social participation are the foundations for learning, which takes place in the context of relationships. ● Occupational therapists have expertise to address both mental and physical health in a variety of early childhood settings. In the neonatal intensive care unit (NICU), intervention is provided to enhance growth and development for premature or medically fragile infants and build family capacity to care for their child. Occupational therapists who work in early intervention programs in clinics, homes, or community settings provide interventions that incorporate individual learning opportunities for children within their natural routine and activities. In all of these environments, occupational therapists collaborate with others to support participation. ● Occupational therapy practitioners partner with family members and caregivers to promote the child's development by recommending learning opportunities within the family's daily routines. Conversations with the family help occupational therapy practitioners gain a perspective of how the child spends his or her time; what activities the child wants or needs to do; and how the environment in which the child lives, plays, and attends school supports or hinders occupational engagement. ● Services in the home allow the practitioner to gain a perspective on the

Early Intervention Key Principles	Supporting Statements from Occupational Therapy Literature
	<p>family's values, routine, and relationships; consequently, he or she can suggest therapeutic activities that easily fit into the family's daily routine. In home-based services, occupational therapists provide the culturally relevant strategies that match the child's environment and the family's resources. They focus on the child's participation in play and everyday activities, recognizing that children can easily generalize skills when learned and practiced in their natural environment.</p>
<p>2. All families, with the necessary supports and resources, can enhance their children's learning and development</p> <ul style="list-style-type: none"> • All means ALL (income levels, racial and cultural backgrounds, educational levels, skill levels, living with varied levels of stress and resources) • The consistent adults in a child's life have the greatest influence on learning and development-not EI providers • All families have strengths and capabilities that can be used to help their child • All families are resourceful, but all families do not have equal access to resources • Supports (informal and formal) need to build on strengths and reduce stressors so families are able to engage with their children in mutually enjoyable interactions and activities 	<ul style="list-style-type: none"> • The family is assumed to be the constant in the child's life and have the inherent strengths that serve as a foundation for the child's growth and development. Family support strengthens a caregiver or parent's capacity to "captain their own ship" and not become dependent on professionals for all decision making. • Client-centered occupational therapy practice supports the perspective that families know their children best, that optimal developmental outcomes occur within a supportive family and community environment, and that each family is unique. • Occupational therapy practitioners use family-centered help-giving practices that strengthen the family and improve satisfaction, parenting behavior, personal and family well-being, social support, and child behavior. • Studies cited in the <i>AOTA Practice Advisory on Occupational Therapy in Early Intervention</i> (AOTA, 2010a) indicate that parenting programs can have a positive impact on a variety of outcomes for the family, the child, and familial relationships, such as reducing parental stress, anxiety, and depression.
<p>3. The primary role of the service provider in early intervention is to work with and support the family members and caregivers in a child's life</p> <ul style="list-style-type: none"> • EI providers engage with the adults to enhance confidence and competence in their inherent role as the people who teach and foster the child's development 	<ul style="list-style-type: none"> • Only children and families can identify the occupations that give meaning to their lives and select the goals and priorities that are important to them. By valuing and respecting children and families' input, practitioners help foster their involvement and can more efficiently guide interventions.

Early Intervention Key Principles	Supporting Statements from Occupational Therapy Literature
<ul style="list-style-type: none"> • Families are equal partners in the relationship with service providers • Mutual trust, respect, honesty and open communication characterize the family-provider relationship 	<ul style="list-style-type: none"> • The expertise of the occupational therapy practitioner—and, more importantly, the parent—emerge through the family–professional relationship. • Developing positive partnerships with the family and others is essential, facilitating the sharing of family and professional expertise and wisdom to problem-solve solutions and strategies together. • Regardless of the setting, collaborating with the family is essential for understanding and building trust for an ongoing partnership. • Occupational therapy practitioners can bring their "therapeutic use of self" to all team and family interactions, coaching and guiding rather than directing and doing. • Parents highly value training that facilitates their skills for improving their child's communication, play, and behavior. • Effective interventions for infants and toddlers served by early intervention programs incorporate parent education (e.g., child development, ways to enhance parents' sensitivity to their children's needs, and the encouragement of responsive interactions). • Studies reviewed in <i>Systematic Review of Occupational Therapy Interventions to Improve Cognitive Development in Children Ages Birth–5 Years</i> (Clark & Schlabach, 2013), demonstrated that providing parents with information about their preterm infant and activities to stimulate development or recognize their child's cues enhanced cognitive outcomes. • Studies reviewed in <i>Systematic Review of Interventions to Promote Social-Emotional Development in Young Children With or At Risk for Disability</i> (Case-Smith, 2013) revealed that interventions in which parents (most often mothers) are coached on strategies to increase their social-emotional support, responsiveness, sensitivity, and positive effect

Early Intervention Key Principles	Supporting Statements from Occupational Therapy Literature
	<p>with their infant or toddler were found to have moderate positive effect.</p> <ul style="list-style-type: none"> Using modeling, coaching, and feedback, relationship-focused interventions can enhance parents' responsiveness, sensitivity, and flexibility. These characteristics, in turn, can have a positive influence on a young child's development, including social-emotional function. Parents' full engagement seems important to the success of these interventions. Parent-mediated interventions can have a high impact, given the constancy and importance of the parent-child relationships when they focus on the interaction between parent and child, while also considering parent variables (e.g., skills, style, and personality) and child variables (e.g., developmental level, sensory responsiveness, perception, and behaviors).
<p>4. The early intervention process, from initial contacts through transition, must be dynamic and individualized to reflect the child's and family members' preferences, learning styles and cultural beliefs</p> <ul style="list-style-type: none"> Families are active participants in all aspects of services Families are the ultimate decision makers in the amount, type of assistance and the support they receive Child and family needs, interests, and skills change; the IFSP must be fluid, and revised accordingly The adults in a child's life each have their own preferred learning styles; interactions must be sensitive and responsive to individuals Each family's culture, spiritual beliefs and activities, values and traditions will be different from the service provider's (even if from a seemingly similar culture); service providers should seek to understand, not judge Family "ways" are more important than provider comfort and beliefs (short of abuse/neglect) 	<ul style="list-style-type: none"> Occupational therapy intervention is individually designed and aims to improve the family and child's desired and expected occupational engagement and participation through the implementation of strategies and procedures directed at the child and/or family, the activity, and the environment. Occupational therapy practitioners working in early intervention use a family-centered model, in which the family members are active participants and ultimate decision makers for supports and services. Parents have reported that they learn intervention strategies best when they are actively involved and have opportunities to attempt strategies in the presence of a therapist. The needs of the child may be the initial impetus for intervention, but the concerns and priorities of the parents, extended families, and funding agencies are also considered. Occupational therapy practitioners understand and focus intervention to include the issues and concerns surrounding the complex dynamics among the child, caregiver, and family. Overall, services should be flexible, focus on relationships, consider all of the child's developmental strengths and limitations, and

Early Intervention Key Principles	Supporting Statements from Occupational Therapy Literature
	<p>emphasize family priorities.</p> <ul style="list-style-type: none"> Occupational therapy practitioners, with their holistic approach to clients, consider the influence of the family’s culture, values, beliefs, and spirituality. They recognize and support the value and importance of culturally sensitive practice. Occupational therapy practitioners support a family’s engagement in culturally meaningful occupations and recognize that culture influences the choice of activities. Occupational therapy practitioners gain an understanding of the relationships between aspects of the domain (e.g. occupations, child and family factors, performance skills, performance patterns, and the context/environment) that affect performance and support client-centered interventions and outcomes. Pediatric occupational therapy practitioners promote the participation of all children and their families in everyday activities or occupations, including morning routines. When there is a particular area of concern, the occupational therapist can create an individualized strategy based on the specific needs of the child and family.
<p>5. IFSP outcomes must be functional and based on children’s and families’ needs and priorities</p> <ul style="list-style-type: none"> Functional outcomes improve participation in meaningful activities Functional outcomes build on natural motivations to learn and do; fit what’s important to families; strengthen naturally occurring routines; enhance natural learning opportunities The family understands that strategies are worth working on because they lead to practical improvements in child & family life Functional outcomes keep the team focused on what’s meaningful to the family in their day to day activities 	<ul style="list-style-type: none"> When developing an IFSP with a family, outcomes reflect the family’s hopes for the child’s participation in home and community life. IFSP methods should describe coaching the parent within regular family activities, rather than exclusively outlining therapist–child interactions. Listening to and learning from what the family has to say goes a long way toward designing effective early intervention for a child with a disability. Implicit are clients’ belief systems and underlying assumptions regarding their desired occupational performance. Clients’ perception of success when engaging in desired occupations is vital to any outcomes assessment.

Early Intervention Key Principles	Supporting Statements from Occupational Therapy Literature
	<ul style="list-style-type: none"> At various points in the provision of occupational therapy services, the occupational therapy practitioner and the family will discuss and prioritize outcomes so that the therapist's evaluation and intervention will match the child's and the family's desired outcomes.
<p>6. The family's priorities, needs and interests are addressed most appropriately by a primary provider who represents and receives team and community support</p> <ul style="list-style-type: none"> The team can include friends, relatives, and community support people, as well as specialized service providers Good teaming practices are used One consistent person needs to understand and keep abreast of the changing circumstances, needs, interests, strengths, and demands in a family's life The primary provider brings in other services and supports as needed, assuring outcomes, activities and advice are compatible with family life and won't overwhelm or confuse the family 	<ul style="list-style-type: none"> AOTA agrees with principle six in <i>Seven Key Principles: Looks Like/Doesn't Look Like</i> (Workgroup on Principles and Practices in Natural Environments, 2008), "The family's priorities, needs, and interests are addressed most appropriately by a primary provider who represents and receives team and community support" and that best practice includes "bring[ing] in other services and supports as needed." Further, practice should not result in "limiting the services and supports that a child and family receive," that the intent is not to "provide all the services and supports through only one provider who operates in isolation from other team members," and that no one should be "providing services outside one's scope of expertise or beyond one's license or certification." Under IDEA Part C, occupational therapy is a primary service. An occupational therapist may be the sole service provider and can also work as part of a collaborative team that enhances the family's capacity to care for the child's health and development within daily routines and natural environments. Occupational therapists can provide services as a primary service provider, service coordinator, and/or multidisciplinary team evaluator. Occupational therapists should receive team consultation and support in order to provide services using a primary provider approach.
<p>7. Interventions with young children and family members must be based on explicit principles, validated practices, best available research and relevant laws and regulations</p> <ul style="list-style-type: none"> Practices must be based on and consistent with explicit principles Providers should be able to provide a rationale for practice decisions Research is on-going and informs evolving practices Practice decisions must be data-based and ongoing evaluation is 	<ul style="list-style-type: none"> AOTA believes that occupational therapy practitioners working in early childhood and school settings should have a working knowledge of the federal and state requirements in order to ensure that their program policies are in compliance. Occupational therapy practitioners also should be familiar with their state's occupational therapy practice act and related rules and regulations in order to ensure that occupational therapy services are provided accordingly. Essentially, all occupational

Early Intervention Key Principles	Supporting Statements from Occupational Therapy Literature
<p>essential</p> <ul style="list-style-type: none"> Practices must fit with relevant laws and regulations As research and practice evolve, laws and regulations must be amended accordingly 	<p>therapists and occupational therapy assistants must practice under federal and state law, including laws regulating the practice of occupational therapy.</p> <ul style="list-style-type: none"> Occupational therapy practitioners apply evidence-based research ethically and appropriately to the evaluation and intervention process in accordance with <i>Standards of Practice</i> (OTA, 2010c) and the <i>Occupational Therapy Code of Ethics and Ethics Standards 2010</i> (OTA, 2010b). Throughout the intervention process, information from the evaluation is integrated with evidence from literature, professional judgment, client values, theory, frame of reference, and practice. Occupational therapy is a science-driven profession that applies the most up-to-date research to service delivery. Evidence supports the effectiveness of adding an occupational therapist to a treatment plan and IFSP team. Interventions are used as part of a broad approach that considers performance skills (motor, process, social interaction); activity demands; performance patterns (habits, routines, rituals, roles); and contexts/environments.

SOURCES

- American Occupational Therapy Association. (2010). *AOTA practice advisory on occupational therapy in early intervention*. Retrieved from http://www.aota.org/~media/Corporate/Files/Advocacy/State/Resources/State-Fact-Sheets/AOTA%20Practice%20Advisory%20on%20OT%20in%20EI%20%20Final%20Draft%20cw%20_3_.ashx
- American Occupational Therapy Association. (2010). *Occupational therapy code of ethics and ethics standards*. Retrieved from <http://www.aota.org/~media/Corporate/Files/AboutAOTA/OfficialDocs/Ethics/Code%20and%20Ethics%20Standards%202010.pdf>
- American Occupational Therapy Association. (2010). *Standards of practice for occupational therapy*. Retrieved from <http://www.aota.org/~media/Corporate/Files/Practice/OTAs/ScopeandStandards/Standards%20of%20Practice%20for%20Occupational%20Therapy%20FINAL.pdf>
- American Occupational Therapy Association. (2013). Special issue on occupational therapy and early intervention/early childhood. *American Journal of Occupational Therapy*, 67(4). Retrieved from <http://ajot.aota.org/issue.aspx#issueid=929914>

- American Occupational Therapy Association. (2013). *Tips for living life to its fullest: Establishing morning routines for children*. Retrieved from <http://www.aota.org/About-Occupational-Therapy/Patients-Clients/ChildrenAndYouth/Morning-Routines.aspx>
- American Occupational Therapy Association. (2014). *AOTA practice advisory on the primary provider approach in early intervention*. Retrieved from <http://www.aota.org/-/media/Corporate/Files/Practice/Children/AOTA-Advisory-on-Primary-Provider-in-EI.pdf>
- American Occupational Therapy Association. (2014). Occupational therapy practice framework: Domain and process, 3rd edition. *American Journal of Occupational Therapy*, 68 (Supplement 1), S1-S51. <http://dx.doi.org/10.5014/ajot.56.6.609>
- Case-Smith, J. (2013). From the desk of the guest editor: Systematic reviews of the effectiveness of interventions used in occupational therapy early childhood services. *American Journal of Occupational Therapy*, 67(4) 379-382. <http://dx.doi.org/10.5014/ajot.2013.007872>
- Case-Smith, J. (2013). Systematic review of interventions to promote social-emotional development in young children with or at risk for disability. *American Journal of Occupational Therapy*, 67(4) 395-404. <http://dx.doi.org/10.5014/ajot.2013.004713>
- Case-Smith, J., Clark, G. F., & Schlabach, T. L. (2013). Systematic review of interventions used in occupational therapy to promote motor performance for children ages birth–5 years. *American Journal of Occupational Therapy*, 67(4) 413-424. <http://dx.doi.org/10.5014/ajot.2013.005959>
- Clark, G. F. & Kingsley, K. (2013). *Occupational therapy practice guidelines for early childhood: Birth through 5 years*. Bethesda, MD: American Occupational Therapy Association Press. Retrieved from http://myaota.aota.org/shop_aota/prodview.aspx?TYPE=D&PID=149845756&SKU=2222
- Clark, G. F. & Schlabach, T. L. (2013). Systematic review of occupational therapy interventions to improve cognitive development in children ages birth–5 years. *American Journal of Occupational Therapy*, 67(4) 425-430. <http://dx.doi.org/10.5014/ajot.2013.006163>
- Clark, G. F., Jackson L., & Polichino, J. (2011). *Occupational therapy services in early childhood and school-based settings*. Bethesda, MD: American Occupational Therapy Association. Retrieved from <http://www.aota.org/-/media/Corporate/Files/Practice/Children/Browse/EI/Official-Docs/EI%20and%20Schools%20final%2022811.pdf>
- Hildebrand, K., Lewis, L. J., Pizur-Barnekow, K., Schefkind, S., Stankey, R., Stoffel, A., & Wilson, L. (2013). *AOTA frequently asked questions: How can occupational therapy strive towards culturally sensitive practices?* American Occupational Therapy Association. Retrieved from <http://www.aota.org/-/media/corporate/files/secure/practice/multicultural/faqculturalsensitivity.pdf> (accessible to AOTA members only)
- Howe, T.-H. & Wang, T.N. (2013). Systematic review of interventions used in or relevant to occupational therapy for children with feeding difficulties ages birth–5 years. *American Journal of Occupational Therapy*, 67(4). 405-412. <http://dx.doi.org/10.5014/ajot.2013.004564>
- Kingsley, K. & Mailloux, Z. (2013). Evidence for the effectiveness of different service delivery models in early intervention services. *American Journal of Occupational Therapy*. 67(4) 431-436. <http://dx.doi.org/10.5014/ajot.2013.006171>
- Workgroup on Principles and Practices in Natural Environments, OSEP TA Community of Practice: Part C Settings. (2008, March). *Seven key principles: Looks like / doesn't look like*. Retrieved from http://www.ectacenter.org/~pdfs/topics/families/Principles_LooksLike_DoesntLookLike3_11_08.pdf

The RRCP Early Childhood Service Delivery Priority Team provided review and technical assistance to the original version of this document. Members of the team included: Betsy Ayankoya, Sharon Ringwalt, Ann Bailey, Sharon Walsh, Sue Goode, Joicey Hurth, Anne Lucas, Karen Mikkelson, and Lynda Pletcher.

This document was updated October 2014, with assistance and review from the following people: Anne Lucas, Carolee Eslinger, Betsy Ayankoya, Karrie Kingsley, Barbara Hanft, and Gloria Frolek Clark, as well as members of the AOTA Early Childhood Workgroup, which included: Sandra Schefkind, Ashley Stoffel, Dr. Lisa J Lewis, Christy Morrison, Dottie Handley-More, Kris Barnekow, Rachel Stankey, and Annie Mori.