

Evaluation & Assessment in Early Intervention

Lisa Chiarello, PT, PhD, PCS, Chair of the Early Intervention Special Interest Group

In support of the Section on Pediatrics' strategic plan, over the next few years, the Early Intervention Special Interest Group will be focusing on developing resources to assist therapists in translating the published competencies for physical therapists in early intervention into practice (Chiarello & Effgen, 2006). In response to members' needs the first two competency areas that we will be addressing are evaluation & assessment and intervention. This newsletter article will focus on a few aspects of evaluation and assessment. For a more thorough discussion on the topic readers are referred to Chiarello (2012).

Therapists frequently inquire about which tests and measures are appropriate for use in early intervention. This question is extremely hard to answer because of two considerations. First, therapists individualize the evaluation and assessment based on the needs of the child, family, and team. Second, selection of tests and measures depends on the purpose of the evaluation and assessment, i.e. eligibility, program planning, or progress monitoring. For eligibility and progress monitoring, many states require the use of specific tests and measures that cover the various developmental domains {physical, cognitive, communication, social or emotional, and adaptive} and reflect the national child outcomes {positive social-emotional skills, acquisition and use of knowledge and skills, and use of appropriate behaviors to meet needs} (Hebbeler & Barton, 2007). The following two websites provide useful information and resources on evaluation and assessment, particularly in reference to measuring child and family outcomes:

■ Early Childhood Outcomes Center (ECO) - <http://www.fpg.unc.edu/~eco/>

■ National Early Childhood Technical Assistance Center -
<http://www.nectac.org/topics/quality/childfam.asp>

Current textbooks are a good resource for an overview of common measures used by physical therapists, especially related to motor development and function (Campbell, 2012; Effgen, 2005; Long & Toscano, 2002; Tatarka, Swanson, & Washington, 2000). When selecting which measure to use therapists need to consider if the measure is reliable and valid, what specific information the measure will provide (such as a focus on balance items), and any unique features of the test (such as promoting family involvement).

In addition to tests and measures on motor development and function, physical therapists in early intervention may also find it important to gather information on other aspects of the child that relate to motor function and influence the child's activity and participation. In some cases this may occur during the formal evaluation and assessment process, and at other times may be part of our ongoing service for the child. Following is a list of some suggested aspects of the child that therapists may consider depending on their clinical reasoning. The measure noted for

each area is only meant to provide therapists with an example. Therapists are encouraged to explore the various areas in more depth as well as to consider how these aspects can also be addressed during the family interview and observation of the child in his or her daily routines.

- Play and playfulness: It is important for therapists to understand children's interests and abilities to participate in a variety of play experiences. Playfulness refers to a child's approach to play.
 - Parham and Fazio (2007) provide an overview of assessment of play including a chapter on the Test of Playfulness. The Test of Playfulness (Bundy, 2005) measures children's engagement, motivation, social interactions, affect, and creativity during play.
- Adaptive behavior: Adaptive behaviors refer to behaviors children use in their daily life to meet their personal needs and respond to and interact with the physical and social environment (Zeitlin & Williamson, 1994).
 - The Early Coping Inventory (Zeitlin, Williamson, & Szczepanski, 1988) measures children's self-awareness, flexibility, motivation, and interactions with people in a variety of situations.
- Home environment: In early intervention therapists can offer guidance regarding the safety, accessibility, and affordances available in the home environment.
 - The Home Observation for Measurement of the Environment (Caldwell & Bradley, 2003) includes subscales on the physical environment and play materials as well as parent-child interactions.
- Parent-child interactions: "The child's relationship and interaction with his or her most trusted caregiver should form the cornerstone of the assessment" (Greenspan & Meisels, 1996, p. 19). Having an understanding of the social patterns as well as the sensorimotor component of interactions between a child and parent enables a therapist to support the parent-child relationship.
 - Keys to Interactive Parenting Scale (KIPS) (Comfort & Gordon, 2006) measures parental behaviors in supporting child development.
<http://www.comfortconsults.com/kips.htm>

Whatever tests and measures therapists use in early intervention, it is important to remember that the information gained from tests and measures supplements the key information gathered from the family interview and observations of the child in his or her daily routines and activities. Therapists are encouraged to use a strength-based approach to evaluation and assessment and to advocate for a process that links the information gathered into a meaningful individualized family service plan.

Bundy A. (2005). *Manual for Test of Playfulness*. Bolder, CO: Colorado State University.
Caldwell, B. M., & Bradley, R. H. (2003). *Administration manual: Home Observation for Measurement of the Environment*. Little Rock, AR: University of Arkansas at Little Rock.

- Campbell S. (2012). The child's development of functional movement. In S. Campbell, R. Palisano, & M. Orlin (Eds.) *Physical Therapy for Children*, pp. 37-86.
- Chiarello L. (2012). Serving infants, toddlers, and their families: Early intervention services under IDEA. In S. Campbell, R. Palisano, & M. Orlin (Eds.), *Physical Therapy for Children*, pp. 944-967.
- Chiarello L, Effgen S. (2006). Update of Competencies for Physical Therapists Working in Early Intervention. *Pediatric Physical Therapy*, 18(2), 148-158.
- Effgen S. (2005). Child development and appraisal. In S. Effgen (Ed.), *Meeting the Physical Therapy Needs of Children*, pp. 41-107.
- Greenspan SI, Meisels SJ: Toward a new vision for the developmental assessment of infants and young children. In Meisels, SJ, & Fenichel, E (Eds.). *New Visions for the Developmental Assessment of Infants and Young Children*, pp.11-26, Washington, DC, 1996, Zero to Three.
- Hebbeler, K., & Barton, L. (2007). The need for data on child and family outcomes at the Federal and State levels. *Young Exceptional Children Monograph Series* , 9, 1-15.
- Long T, & Toscano K. *Handbook of Pediatric Physical Therapy*, 2nd ed. Philadelphia: Lippincott Williams & Wilkins, 2002.
- Parham LD & Fazio LS. (2007). *Play in Occupational Therapy for Children* (2nd edition). Mosby.
- Tatarka, ME, Swanson, MW, & Washington, KA. The role of pediatric physical therapy in the interdisciplinary assessment process. In Guralnick, MJ (Ed.). *Interdisciplinary Clinical Assessment of Young Children with Developmental Disabilities*. Baltimore: Paul H. Brookes Co., 2000, pp. 151–182.
- Zeitlin S & Williamson GG. (1994). *Coping in Young Children: Early Intervention Practices to Enhance Adaptive Behavior and Resilience*. Baltimore, MD: Paul H. Brookes.
- Zeitlin S, Williamson GG, Szczepanski M. (1988). *Early Coping Inventory: A Measure of Adaptive Behavior*. Bensenville, IL: Scholastic Testing Service Inc.