Practicing Evidence-Based Early Intervention
Early Steps State Meeting
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Overview

In our hour together today:

• Shared understanding about definition for evidence-based early intervention

• Awareness of available evidence supporting components and practices associated with primary service provider (PSP) and response to support and intervention (RSI) approaches

• Knowledge about resources related to locating and synthesizing best-available evidence to help inform practice of evidence-based early intervention
Evidence-Based Early Intervention

Best-available research evidence

Family wisdom and values

Practitioner wisdom and values
Practicing Evidence-Based Early Intervention

Decision-making process that integrates the best-available research evidence with family & practitioner wisdom & values

Considers characteristics, preferences, strengths, and needs of child and family
Practicing **evidence-based** early intervention

Decision-making process that integrates the best-available research evidence with family & practitioner wisdom & values

Considers characteristics, preferences, strengths, and needs of child and family

- Buysse & Wesley (2006)
- Snyder (2006)

Practicing **eminence-based** early intervention

Using tradition, folklore, and loose bodies of knowledge to inform practice decisions

Making the same mistakes [decisions] with increasing confidence over an impressive number of years

Recommended Practices

- Systematically promulgated lists of practices or treatment protocols designed to help practitioners and consumers make informed decisions under specific circumstances
- Other terms: Clinical practice standards, clinical practice guidelines
- Offer general guidance
- Must always consider individual child and family circumstances
- So, recommended practices are important and necessary but not sufficient for informing evidence-based early intervention
Example Recommended Practices in Early Intervention

- DEC (Division for Early Childhood) Recommended Practices
  www.dec-sped.org
- Workgroup on Principles and Practices in Natural Environments
  http://www.nectac.org/topics/families/families.asp
- NAEYC Developmentally Appropriate Practices
  www.naeyc.org
### Recommended Practices

#### Key Components of PSP Approach

**Component 1: Functional Assessment**
- Focus on child functioning in context.
- Child and family strengths reflected in IFSP.


**Component 2: Functional Goal Planning**
- Intervention priorities based on child/family functioning.
- Goals align with family priorities, beliefs, and values.
- IFSPs understandable to families.
- Goals written in active voice.
- Goals address functional skills.


**Component 3: Linking Functional Goals to Service Decisions**
- Variety of supports and resources used to achieve outcomes.
- Supports chosen are known to be helpful.
- Least intrusive strategies are used.
- Services added based on specific need.

| Source | Bailey et al., 1988; Bennett et al., 1998; Boone et al., 1998; Hanft & Pilkington, 2000; 2003; Jung & Grisham-Brown, 2006; McBride et al., 1993; McGonigle et al., 1991; McWilliam & Scott, 2001; McWilliam et al., 1998; McWilliam, 2000; 2005; Notari-Syverson & Shuster, 1995. |

*From: TEIDS Plus (McWilliam, Snyder, Ridgley, & Davis, 2008)*
### Component 4: Integrated Service Delivery
- Services provided in natural environments
- Shared responsibility between families & professionals
- Use of integrated service delivery model & primary service provider (PSP) model
- All team members participate in implementation

| From: | Dunst et al., 2001; Hanft & Pilkington, 2000; Jung & Baird, 2003; Jung & Grisham-Brown, 2006; McBride et al., 1993; McGonigel et al., 1991; McWilliam & Scott, 2001; McWilliam et al., 1998; McWilliam, 2000; Notari-Syverson & Shuster, 1993; Rosenkoetter & Squires, 2000; Summers et al., 1990 |

### Component 5: Monitoring Progress and Child/Family Outcomes
- Goals include an evaluation component.
- Barriers to goal attainment considered.
- Multiple measurement strategies are used to monitor child and family progress.


### Family Participation and Decision Making: Embedded within each component
- Practices support participation of families.
- Practices support family decision making.

| From: | Bennett, Zhang, & Hojnár, 1998; Jung & Baird, 2003; Jung & Grisham-Brown, 2006; McBride et al., 1993; McWilliam et al., 1998; Rosenkoetter & Squires, 2000; Summers et al., 1990; Trivette & Dunst, 2000; Zhang & Bennett, 2003 |
Additional Evidence to Support PSP Approach and Integrated Service Delivery
“We start with the assumption that each day, that every hour in every day, is of great importance to a child, and that when an hour is neglected, allowed to pass without reason and intent, teaching and learning go on nonetheless and the child may be the loser.” (Hobbs, 1967, Am. Psych., p. 1109)

Children will learn… but maybe not what they need to learn
Understanding How Children Learn

Everyday Activities

Interests
Mastery
Engagement
Learning Opportunities

Adapted from Dunst (2000, 2001)
Bath time is so much fun!

Look at what Granny got me for my birthday.

My first experience pouring water – what fun!
Some children [and their families] benefit from additional support for engagement, learning opportunities, and mastery.

Families and practitioners can use additional supports and instructional procedures to embed learning opportunities within and across everyday activities, routines, or transitions.

Response to Support and Intervention (RSI; Snyder 2007)

From: Embedded Instruction for Early Learning (www.embeddedinstruction.net) (Snyder, Hemmeter, Sandall, & McLean, 2008)
Embedded Instruction Promotes Learning

Everyday Activities

- Interests
- Modifications & Arrangements
- Mastery
- Engagement
- Naturalistic Instruction
- Prompting & Feedback Strategies
- Learning Opportunities
My name is Brandon. My family and I participate in early intervention.

Mom and dad have identified walking as an important priority.

What supports might I need to help me walk?

What does the research evidence say about motor intervention for young children?
<table>
<thead>
<tr>
<th>Old Way: Neurofacilitation</th>
<th>New Way: Dynamic Systems/Motor Learning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work on <em>prerequisites</em> (e.g., strength, endurance, and flexibility) before ready to work on functional skills</td>
<td><em>Practicing functional activities</em> will assist development of strength, endurance, and flexibility; children may learn a task in spite of limitations</td>
</tr>
<tr>
<td>Hands-on intervention (mass practice, discrete trial) most effective</td>
<td>Hands-on intervention may help with skill acquisition, but hands-off intervention is required for generalization and maintenance</td>
</tr>
<tr>
<td>Elicited postural reactions (e.g., on a therapy ball) will <em>carry over</em> to functional skills (e.g., sitting on a chair)</td>
<td>Postural responses <em>organized to achieve a goal</em> (e.g., sitting on a chair) and are not the same as elicited postural reactions; carryover cannot be assumed during functional activities; responses often need to be predictive, not reactive</td>
</tr>
</tbody>
</table>
Neurofacilitation

- *Normal movement facilitated* through specific sensory stimulation; by experiencing normal movement, more normal movement will be “learned”

- During therapy, any activity can be used as long as it promotes desired movements

- Most therapy should take place in an environment that has a good supply of *therapeutic equipment*

- *Normal movement experiences* are the most important

Dynamic Systems/Motor Learning

- Facilitating normal movement is easy; getting it to *carry over* to independent movement and functional activities is difficult

- *Activities are critical*, movement is organized to accomplish specific tasks

- Most therapy should take place in *natural environments*

- *Appropriate practice and feedback* are most important

Look at me...I am practicing walking and having so much fun!
Empirical evidence supporting PSP and RSI approaches is growing

Where can Early Steps practitioners and families find best-available evidence syntheses?
Locating Best-Available Evidence: Example Sites

- Research and Training Center on Early Childhood Development
  www.researchtopractice.info

- Center on the Social and Emotional Foundations for Early Learning
  http://www.vanderbilt.edu/csefel/index.html
Locating Best-Available Evidence: Example Sites

- Technical Assistance Center on Social Emotional Intervention for Young Children
  http://challengingbehavior.fmhi.usf.edu/

- National Early Childhood Transition Center
  http://www.ihdi.uky.edu/nectc/
Locating Best-Available Evidence: Example Sites

• Center for Early Literacy Learning  
  http://www.earlyliteracylearning.org

• What Works Clearinghouse  
  (preschool focus primarily at this point)  
  http://ies.ed.gov/ncee/wwc/

• Cochrane Collaboration  
  http://www.cochrane.org/reviews/
Locating Information About Family Wisdom and Wisdom-Based Action

- Beach Center on Disability
Questions to Consider When Appraising Internet Sites

Who (agency or organization) sponsors the site?

Is there information about funder, mission, activities, board of directors? Reputation known?

Author’s credentials and relevant experience? Is a vita available?

What processes or framework was used to create the synthesis? Are complete citations for primary sources available?

Are dates provided (e.g., when material was posted, dates of inclusion for studies reviewed)?

Is the review process transparent?

Are syntheses validated by experts in the field?
Seven Key Principles
Evidence-Based Early Intervention

• Infants and toddlers learn best through every day experiences and interactions with familiar people in familiar contexts.

• All families, with the necessary supports and resources, can enhance their children’s learning and development.

• The primary role of the service provider in early intervention is to work with and support family members and caregivers in a child’s life.

• 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.

• IFSP outcomes must be functional and based on children’s and families’ needs and priorities.

• The family’s priorities, needs, and interests are addressed most appropriately by a primary provider who represents and receives team and community support.

• Interventions with young children and family members must be based on explicit principles, validated practices, best-available research, and relevant laws and regulations.

Bridging the gap between what we know and what we do for the benefit of children and families