Provider Use of Family-centered Early Intervention (FCEI) Behaviors in Telepractice

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Part C of IDEA Supports FCEI

- Active parent involvement
- Family’s needs and desires are recognized
- Professionals identify and enhance family members’ capabilities and competencies

"We really are in the business of empowering parents to be effective language teachers for the children," Kathy Sussman; Jean Weingarten Children’s Center

Brewer, McPherson, Magrab, & Hutchins, 1989; Dunst, 2006; Dunst, Boyd, Trivette, & Hamby, 2002; Dunst, Johanson, Trivette, & Hamby, 1991; McBride, Brotherson, Joanning, Whiddon, & Demmitt, 1993; Powell, 1996; Trivette & Dunst, 2006
Defining Participatory FCEI Behaviors

- Directly teach child
- Model for parent
- Facilitate child play
- Play
- Direct
- Facilitate
- Question
- Join parent in interaction with child

- Ask for information
- Provide information
- Observe parent-child
- Listen
- Converse
- Discuss child’s development
- Comment
- Explain to parent
- Caregiver practice with feedback
- Prompt
- Problem solve
- Reflective suggestions
- Color commentary
- Coach

Basu, Salisbury, & Thorkildsen, 2010; Campbell & Sawyer, 2007; 2009; Colyvas, Sawyer, & Campbell, 2010; Friedman, Woods, & Salisbury, 2012; McBride & Peterson, 1996)
FCEI is hard to do (in-person)
Current Study
Defining Telepractice

(Dixon, Hook, & McGowan, 2008)

Telepractice utilizes telecommunication technologies to deliver health-related services and information to support patient care and is provided from a distance to a client ( ).
Do providers use more FCEI behaviors when conducting sessions through telepractice?

Does the use of any one FCEI provider behavior influence the use of other FCEI provider behaviors?

If providers use more FCEI behaviors in telepractice, there may be benefits

- To the system (e.g., regulatory support, financial support)
- To providers (e.g., training opportunities)
- To families (e.g., family members more engaged in session; access to experienced therapists)
Variables in the Study
Independent Variables (Provider Characteristics)

- Pre-service discipline
- Additional certification
- FCEI Experience
  - # years
  - # children
- Telepractice Experience
  - # all ages
  - # Birth – 36 months
Dependent Variables (FCEI Provider Behaviors)

- Observation (OB)
- Direct Instruction (DI)
- Parent practice with provider feedback (PPF)
- Child behavior with provider feedback (CBF)
“….the caregiver interacts with the child while the early interventionist observes without offering any feedback or suggestions” (Friedman et al., 2012; p. 68)

“The therapists also rely much more on the parents to act as teachers themselves.”

Kathy Sussman; Jean Weingarten Children’s Center
Direct Instruction (DI)

“…specific, outcome-directed instruction by a competent teacher on a concept or skill to increase independent performance of the learner” (Woods et al., 2011; p. 386)

“Christensen marked down Dylan’s milestones and gave his parents suggestions for what to work on.”

“…the therapists help parents improvise with objects in their homes.”

Kathy Sussman; Jean Weingarten Children’s Center
Parent Practice with Feedback (PPF)

“...the caregiver is the primary partner with the child, and the provider offers encouragement and feedback” (Friedman et al., 2012; p. 70)

“They train them to act like radio commentators, constantly narrating and commenting on things that happen.”

Kathy Sussman; Jean Weingarten Children’s Center
“….. share information about the child’s actions or developmental sequence or about behaviors related to child’s goals” (Basu et al., 2010; p. 147)
Coding Procedures

- Original coding protocol based on the literature
- Code *predominant* behavior in 30-second (30-s) intervals
- Code *all* behaviors within each 30-s interval
- Noted when other behaviors occur (i.e., modeling, conversation, triadic play)
Inclusion Criteria

- **Children**
  - DHH (bilateral; any degree)
  - Birth – 36 months
  - English as primary language
  - Any communication approach (Listening and Spoken Language most common)

- **Providers**
  - Telepractice & recorded
  - 1 session/provider
Participants (n=16) (8 agencies)

- **Certification**
  - AVT or AVEd: 9
  - Other/None: 7

- **Highest Degree**
  - Comm. Dis.: 10
  - Deaf Ed.: 6

- **FCEI Experience - # Years**
  - 0-9 years: 7
  - 10+ years: 9

- **FCEI Experience - # Children**
  - <5 – 20: 5
  - 21 - >40: 11

- **Telepractice Experience – all ages**
  - <5 – 20: 4
  - 21 - >40: 12

- **Telepractice Experience – B-36 mos**
  - <5 – 20: 7
  - 21 - >40: 9
### FCEI Provider Behaviors

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Range</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Variance</th>
</tr>
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<tbody>
<tr>
<td>OB</td>
<td>16</td>
<td>92.00</td>
<td>20.00</td>
<td>112.00</td>
<td>69.5000</td>
<td>25.29295</td>
<td>639.733</td>
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<tr>
<td>DI</td>
<td>16</td>
<td>43.00</td>
<td>.00</td>
<td>43.00</td>
<td>15.9375</td>
<td>13.69900</td>
<td>187.663</td>
</tr>
<tr>
<td>PPF</td>
<td>16</td>
<td>27.00</td>
<td>1.00</td>
<td>28.00</td>
<td>13.0625</td>
<td>8.94031</td>
<td>79.929</td>
</tr>
<tr>
<td>CBF</td>
<td>16</td>
<td>50.00</td>
<td>.00</td>
<td>50.00</td>
<td>15.6875</td>
<td>13.33026</td>
<td>177.696</td>
</tr>
<tr>
<td>Valid N (listwise)</td>
<td>16</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>
Relationships Between DVs
Parent Practice with Feedback and Child Behavior Provider Feedback

Significant relationship \((p = .03)\) (Cramer’s \(V = .547; p = .042\))
Are provider attributes (IV) associated with the use of FCEI behaviors (DV)?
FCEI Experience (# of Years) : FCEI Behaviors

- FCEI Experience (# years) (Created 2 categories)
  - 0-9 years
  - 10+ years

- Results
  - Relationship between experience with FCEI (# of years) and use of FCEI behaviors did not show significance for 2 behaviors (OB, PPF)
  - Marginal significance for DI ($p = .207$)
  - Significance for CBF ($p = .012$)
FCEI (# of Years) : CBF
Provider Use of FCEI Behaviors

In-person sessions versus telepractice
<table>
<thead>
<tr>
<th>Type of Provision</th>
<th>Mean</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Observation</td>
<td>79%</td>
<td>56-100%</td>
</tr>
<tr>
<td>Direct Instruction</td>
<td>12%</td>
<td>0-36%</td>
</tr>
<tr>
<td>Provider Feedback to Parent about Parent</td>
<td>3%</td>
<td>0-10%</td>
</tr>
<tr>
<td>Provider Feedback to Parent about Child</td>
<td>6.5%</td>
<td>0-23%</td>
</tr>
</tbody>
</table>

*Provided at 30-second intervals; predominant behaviors only*
<table>
<thead>
<tr>
<th>Type of Provision</th>
<th>Mean</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Observation</td>
<td>63%</td>
<td>40-93%</td>
</tr>
<tr>
<td>Direct Instruction</td>
<td>14%</td>
<td>0-35%</td>
</tr>
<tr>
<td><strong>Provider Feedback to Parent about</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Parent</td>
<td>10%</td>
<td>1-22%</td>
</tr>
<tr>
<td><strong>Provider Feedback to Parent about</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Child</td>
<td>12%</td>
<td>0-31%</td>
</tr>
</tbody>
</table>

*Provided at 30-second intervals; all occurrences*
Observation (OB)

- **In the literature** (range = 6% - 36%)
  - NERS @ 27%; HVOF-M @ 24% (Campbell & Sawyer, 2007)
  - NERS > 1 training @ 6%; NERS > 2\textsuperscript{nd} training @ 12% (Campbell & Sawyer, 2009)
  - TCS @ 36% (Colyvas, Sawyer & Campbell, 2010)
  - HVOF @ 7% (McBride & Peterson, 1997)
  - HVOF @ 7% (Peterson, Luze, Eshbaugh, Jeon, & Kantz, 2007)

- **In this study:**
  - Predominant position only: (mean = 79%; range = 56% - 100%)
  - Counting all behaviors: (mean = 63%; range = 40% - 93%)

- **Implications**
  - The telepractice platform lends itself to more OB
  - This is an acceptable form of FCEI; limits provider working with child (in in-person sessions)
  - In telepractice, can a lot of OB be “too much of a good thing”?
Direct Instruction (DI)

**In the literature:** TCS @19% (Colyvas, Sawyer & Campbell, 2010)

**In this study**
- Predominant position only: (mean = 12%; range = 0-36%)
- Counting all behaviors: (mean = 14%; range = 0-35%)

**Implications**
- Direct instruction does not occur frequently in either in-person or telepractice.
  - Is this acceptable?
  - Should there be more training supporting the provision of DI as a FCEI provider behavior?
Provider to Parent Feedback (PPF)

- **In the literature** (range = .36% - 6%)
  - Problem-oriented reflection @ 2%; Caregiver practice with feedback @ 6% (Colyvas, Sawyer, & Campbell, 2010)
  - Coaching-supporting parent @ .36% (McBride & Peterson, 1997)
  - Coaching-supporting parent-child interactions @ .36% (Peterson, et al., 2007)

- **In my study**
  - Predominant position only: (mean = 3%; range = 0% - 10%)
  - Counting all behaviors: (mean = 10%; range = 1% - 22%)

- **Implications**
  - The telepractice platform may lend itself to more PPF
  - Is this a valuable FCEI provider behavior? Should it be used more?
  - Is this an integral part of “coaching”?
In the literature (range = 0% - .36%)

- “Provider first directly interacts with the child while explicitly teaching the caregiver, and then the caregiver works with the child with provider feedback (p. 780).” 0% (Colyvas, Sawyer, & Campbell, 2010)
- .36% (Peterson, et al., 2007)
- “Parent is primarily working with child, but interventionist provides encouragement or suggestions, comments on child’s response (p. 220).” @ .36% (McBride & Peterson, 1997)

In this study

- Predominant position only: (mean = 6.5%; range = 0% - 23%)
- Counting all behaviors: (mean = 12%; range = 0% - 31%)

Implications

- The telepractice platform lends itself to more CBF
- Is CBF an effective FCEI provider behavior?
- Does CBF (and PPF) exemplify “coaching”?
Implications & Summary
Not many FCEI provider behaviors are influenced by providers’ degree, certification, or experience conducting telepractice with infants and toddlers.

Informally speaking, quantity of FCEI provider behaviors used in telepractice differs from the in-person condition:
- More observation; dominant behavior
- Less direct instruction
- A small increase in provider feedback to parent about parent
- More provider feedback to parent about child

Observation is used extensively in telepractice; Is this appropriate?

The use of PPF and CBF are influenced by one another.

The use of DI, PPF, and CBF occur in similar amounts (means)
It would be of interest to identify the FCEI provider behaviors that are most likely to improve child outcomes and parent satisfaction.

Coaching practices, a currently popular approach to FCEI, includes feedback to parents. This is not happening with regularity.

Regarding FCEI programs and systems of care:
- Programs initiating telepractice could benefit from training to support the infrastructure of the program (i.e., recording sessions, sharing recorded sessions with parent and other therapists).
- Uptake of telepractice seems to be most robust with NFP programs providing Auditory-Verbal therapy.

FCEI is hard to do! Telepractice may offer new opportunities for training (pre-service and professional development).
Future Research

Considerations and Adaptations
- Larger sample size
- Adapt coding scheme (add categories)
- Review and consider the benefit of coding *all* behaviors in any 30-second interval rather than the predominant behavior only
- Identify purpose of future research
  - Support for telepractice platform
  - Support for training providers in expanding use of FCEI practices
    - impact training in pre-service training programs
    - influence professional development activities
    - Impact supervision/mentoring practices


