Family-Centered Practices in Single-Case Research Design

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Introduction

- The importance of parent involvement during early intervention/early childhood special education (EI/ECSE) has been acknowledged in the field and supported by DEC Recommended Practices (RPs) (DEC, 2014).
  - Family participation during EI/ECSE has been linked to a range of positive child outcomes, including improved skills, developmental progress, and quality parent-child time (Bailey, Raspa, & Fox, 2012).
- DEC RPs emphasize family-centered approach (EI/ECSE).
  - There are many areas that early childhood practitioners can collaborate with families such as (a) gather information from parents about the child's strengths, needs, likes, dislikes, and past experiences, (b) include parents in the screening and assessment process, (c) decide intervention plans to support child's strengths and needs, (d) create opportunities for parents as intervention agents, and (e) support parents as advocates.

Purpose

- To examine the evidence provided by single-case research (SCR) design studies that applied an intervention with an effort to involve parents.
- Research questions:
  - What practices are used to support parent involvement?
  - What interventions are most effective?
  - What future research would expand the current evidence base?

Methods

- Database (Educational Resources Information Center, PsychINFO, Medline, and Academic Search Premier) searches with several keywords (e.g., early intervention and parent participation).
- **Inclusion criteria**
  - Published between 2000 and 2015.
  - Included parents/caregivers, who have young children with special needs during the intervention process
  - Utilized a SCR design.
  - Applied an intervention in child's natural environment.

Implications For Research

- Research studies should address:
  - How teams (including family members) incorporate **goals** listed in the Individual Family Service Plan (IFSP) or **objectives** in the Individualized Education Program (IEP) into to the intervention?
  - How the researcher collaborate with **EI/ECSE team**?
  - How generalization and **maintenance** phases are linked to the intervention so that parents continue to use new behaviors and skills over time and across contexts?
  - How **fathers** and **/or other primary caregivers** (grandparents) affect the intervention?
  - How the researcher observe child in his **natural environment** and **daily routine activities** to establish baseline criteria?

Parent Involvement in Selected Articles

Journal	Citation	Experimental Design	Children's Age	Diagnosis	Setting	Type of Parent Involvement
Topics in Early Childhood Special Education	Blair, Umbreit, Dunlap, & Jung, (2007)	Multiple baseline design	6	Dual diagnosis of mental retardation and autism	Inclusive classroom	Interview with parents; mother helped to develop intervention strategies.
	Blair, Fox, & Lentini, (2010)	Multiple baseline design	3	Speech, language delays	Inclusive classroom	FBA is conducted with a team of professionals including mothers; prevention strategies were developed with mothers.
	Blair, Lee, Cho, & Dunlap, (2011)	Multiple-baseline design across children	4 ½ to 5 ½	Dual diagnosis of autism and mental retardation; dual diagnosis of autism and cerebral palsy	Inclusive classroom	Collaboration with parents to design the intervention; to assess social validity, parents were asked to provide information.
	Duda, Dunlap, Fox, Lentini, & Clarke, (2004)	A-B-A-B design	3	Down syndrome, physical, developmental, and speech concerns	Inclusive classroom	Researchers formed a team with various professionals including child's parents.
	Hine & Wolery, (2006)	Multiple baseline across children	2 ½ to 3 ½	Autism spectrum disorder	Inclusive classroom	Interview with parents.
	Hunt, Soto, Maier, Liboiron, & Bae, (2004)	Multiple baseline across children	2 to 4	Severe physical and speech impairments and moderate cognitive delays, Down syndrome, severe cognitive and speech–language delays and orthopedic impairments	Inclusive classroom	Educational teams consisting of educators and parents developed and implemented plans of support for children.
	Jones & Schwartz, (2004)	Single-subject design counterbalanced across stimulus	4 to 5	Autism spectrum disorder	Inclusive classroom	Interview with parents.
	Park, Alber-Morgan, & Cannella-Malone, (2011)	Changing criterion design	2 to 3	Autism spectrum disorder	Child's home	Three mothers were trained to teach their child PECS.
	Rogers, Hemmeter, & Wolery, (2010)	Multiple baseline across behaviors	4 to 5	Language delays, PDD-NOS, and autism spectrum disorder	Swimming pool	Interviews with the parent. Parents were present during the intervention. Parents reported changes in their child's language development.
	Wood, Ferro, Umbreit, & Liaupsin, (2011)	Multiple-baseline design across participants	3 to 4 ½	Severe delay for language, communication, and fine motor deficits, and Down syndrome	Inclusive preschool	Prior to intervention development and implementation parents were interviewed regarding children's target behavior.
Journal of Early Intervention	Duda, Clarke, Fox, & Dunlap, (2008)	Multiple-baseline across-routines	2 ½ to 5	Failure to thrive, feeding difficulties, and expressive language delays	Child's home	Intervention was designed to fit family routines; developed in collaborative discussions with mother. Researchers provided coaching; developed rapport with the family, gained information about the family system and the parents' goals for their children. Initial family meetings were used to introduce the PBS model. The mother served as the primary intervention agent. To evaluate the acceptability, efficacy, and feasibility of the procedures and results, three parents of were asked to provide information.
	Dunlap, Ester, Langhans, & Fox, (2006)	Multiple baseline across home routines	2 to 3	Expressive language delay, speech delay	Child's home	Parents identified routines that were associated with challenging behaviors. Parent training and coaching were provided. The order in which routines were subjected to intervention corresponded to the level of severity described by the mothers.
	Jung, Sainato, & Davis, (2008)	Multiple baseline across children	5 to 6	Developmental delays in cognitive and language skills, autistics characteristics, PDD-NOS	Inclusive preschool	Parents were surveyed and asked to identify their children's preferences. To assess social validity, parents of the target children were asked to provide information.
	Morgan & Goldstein, (2004)	Multiple baseline across behaviors	3 to 4	Language delays	Child's home	Mothers were able to learn decontextualized language strategies.
	Peterson, Carta, & Greenwood, (2005)	Multiple baseline across parent-child dyads	2 to 3 ½	Language delays	Child's home	Parents were taught to use milieu language teaching skills: responsive interaction and incidental teaching.
	Woods, Kashinath, & Goldstein, (2004)	Multiple-baseline across caregiver strategies	1 to 2 ½	Developmental delays, language delay, traumatized birth with a history of seizures, and hypotonia	Child's home	Primary caregiver decided play routines. Caregivers embedded effective teaching strategies within daily routines to improve the communication skills of toddlers.
	Ziolkowski & Goldstein, (2008)	Multiple-baseline design across behaviors	4 to 5	Language delays	Inclusive preschool	Researchers suggested replicating study with parents of preschool children as interventionists.

Final Words

- SCR can support development and education of children with special needs within the parent-child context, taking advantage of the **natural environment**.
- **Modeling**, immediate and strength-based performance **feedback**, **technical assistance**, and proactive **monitoring** are important components of a family-centered intervention. To be most effective, parents must be included during the EI/ECSE process.
- **Intervention features** should include:
  - Training background of the researcher, specifically previous experience and education on working with families who have young children with special needs.
  - Sensitivity to family structure, culture, and routines.
  - Assessment of social validity and feasibility of implementation.