

What Happens When Young Children Do Not Meet Criteria for IDEA Part B/C?

Early Discovery for Mild Delays

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Abstract

Early Discovery is a program that supports mildly delayed young children who did not qualify for Part B/C services. Our goals were to: (1) provide high-quality services; (2) educate and empower parents/caregivers; (3) link families to community resources; and (4) reduce the need for special education. Services included speech–language, occupational, behavioral, or general developmental intervention. Significant improvement from pre- to post-intervention were seen. Eighty-six percent of children did not require special education 1–3 years post-intervention. Results suggested intensive interventions for children with mild delays prevented developmental decline. Discussion focuses on the need for continued research and programming in early intervention for children with mild delays.

It is well documented that early intervention services are effective in improving outcomes for children with developmental delays. However, limited federal funding and state-level policies have limited eligibility for early intervention programs (Jenkins, 2014) to only children who are moderately to severely delayed; children who are mildly delayed are not eligible for federally funded services. Given increasing rates of diagnoses (Zablotsky et al., 2019) and the need for early intervention services, children with mild developmental delays will likely continue to be excluded from funded services.

Early Detection and Intervention

Research suggests it is best to intervene earlier rather than later to change the developmental trajectory of all young children with a delay or disability, including children whose severity of delay is in the mild range (American Association on Intellectual and Developmental Disabilities, 2013; The National Early Childhood Technical Assistance Center, 2011) as the first 3 years of life are critical for brain development. The foundation of language, communication, social–emotional, cognitive, physical, and behavioral skills are established during this critical developmental period, laying the groundwork for later academic success (Darling-Churchill & Lippman, 2016; National Scientific Council on the Developing Child, 2007). Thus, early detection of delays and intervention (a) ameliorate and/or prevent further developmental problems, (b) improve cognitive functioning and academic achievement (Barnett, 2011; Gorey, 2001; Nelson, Westhues, & MacLeod, 2003), (c) minimize the

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It is well documented that early intervention services are effective in improving outcomes for children with developmental delays.

need for special education services later (Anderson et al., 2003), (d) decrease the likelihood a child will be retained (Gorey, 2001), and (e) improve the quality of parent–child relations (Hebbeler et al., 2007; National Scientific Council on the Developing Child, 2007; The National Early Childhood Technical Assistance Center, 2011). Investing in early identification and intervention for all young children, including those with mild delays, leads to reduced educational costs to school districts (Florida Developmental Disabilities Council, 2013).

The Centers for Disease Control and Prevention has estimated that 1 in 6 children from 3 to 17 years old in the US has one or more developmental disabilities or delays (Centers for Disease Control and Prevention, 2013). Yet, Rosenberg and colleagues (2013) approximated that only 1.48%–6.96% of U.S. children with developmental delays were enrolled in federally funded services. In states with the highest discrepancy between eligible children and percentage of children served, there was an estimated 26 times more children in need than were enrolled in early intervention, leaving a large portion of this population untreated (Rosenberg, Robinson, Shaw, & Ellison, 2013). This discrepancy underscores the need for early detection of developmental delays so intervention services can be initiated promptly (First & Palfrey, 1994; Guevara et al., 2013; Rosenberg et al., 2013). However, though it would be ideal if early detection alone promptly led to early intervention for mild delays, that is not the case given strict eligibility criteria for federally funded services.

Eligibility for Early Intervention

Early intervention programming serves children with developmental disabilities or a condition qualifying them for services under Part B or Part C of the Individuals With Disabilities Education Act (IDEA; Florida House of Representatives, 2010; Individuals With Disabilities Education Improvement Act of 2004). The goal of these services is to minimize the need for special education services once children enter

kindergarten. To qualify for services through Part B or C, IDEA requires a developmental delay in one or more of the following areas: (a) physical, (b) cognitive, (c) communication, (d) social–emotional, and (e) adaptive development (IDEA, 2004). Per IDEA, the definition of “a child with a disability” is at the discretion of the state or local education agency. States are required to define “developmental delay” and determine diagnostic criteria for eligibility for federally funded services (Florida House of Representatives, 2010). In Florida, criteria for eligibility for federally funded special programs for children birth to 2 years old is restricted to the following criteria: (a) A score of 1.5 standard deviations below the mean in two or more developmental domains as measured by at least one appropriate diagnostic instrument and procedures, and informed clinical opinion; or (b) a score of 2.0 standard deviations below the mean in one developmental domain as measured by at least one appropriate diagnostic instrument and procedures, and informed clinical opinion; or (c) based on informed clinical opinion, a determination has been made that a developmental delay exists (Florida Department of Education, 2013). Children who do not meet these criteria are considered mildly delayed and therefore do not receive services through IDEA-funded agencies.

Children who are ineligible for services because their delays are mild are at risk of further delay (Guralnick, 2017; Guralnick et al., 1998), potentially increasing their need for more costly interventions when they are older. Specifically, children with unresolved, mild developmental delays were at risk to experience stagnation in development, or decreased trajectory of developmental velocity relative to increasing age, or both (National Scientific Council on the Developing Child, 2007). Evidence suggested declines in intellectual functioning occur in the absence of intensive early intervention

The Early Discovery Intervention Model

Early Discovery was designed to fulfill the community’s demand for early intervention services for children who had developmental delays but were not eligible for Part B/C because their delay was designated as mild. A national longitudinal study approximated that 7–14% of children with cognitive delays did not meet criteria for services, leaving thousands untreated (Rosenberg, Zhang, & Robinson, 2008). In order to fill the gap in services, The Children’s Trust of Miami-Dade County funded Early Discovery to provide early intervention services to children birth through 5 years old in the county with mild developmental delays who did not meet eligibility requirements for IDEA, Parts B or C. The program was designed to serve children from diverse socioeconomic and cultural backgrounds.

Early Discovery’s preventive intervention model of care was designed to provide evidenced-based, short-term intensive intervention (Guralnick et al., 1998; Smith, Groen, & Wynn, 2000) in naturalistic environments (Franzone, 2009) to prevent the need for future special education services (Reynolds, Temple, Robertson, & Mann, 2001). Early Discovery as a prevention program espouses an interagency model of care

in which service providers across the county collaborate to serve families and children (Stroul, Blau, & Friedman, 2010). This approach was intended to improve service quality and access for children with special needs and to expand support to their caregivers. Based on the values and principles of this model, Early Discovery used a family-driven and child-guided approach to gauge the strengths and needs of the child and family and determine the therapeutic services and supports required. Therapeutic services were provided in the child and family's natural environments of home and early learning setting within a supportive infrastructure of relationships at the community level. Finally, Early Discovery strived to provide culturally competent services, with program staff reflecting the ethnic and linguistic differences of the populations served to facilitate access and to eliminate disparities in care (Stroul et al., 2010).

Guralnick's (2011, 2012) Developmental Systems Approach was the framework used for program implementation. This model integrates children's social and cognitive competence, family patterns of interaction, and family resources (Guralnick, 2013). The delivery of services used a relationship-based approach that optimized learning and promoted child development (Edelman, 2004). Research has indicated that relationship-based coaching practices improve caregiver participation and competency and enhance professionals' practices (Fleming, Sawyer, & Campbell, 2011; Gupta & Daniels, 2012; Kemp & Turnbull, 2014; Reinke, Stormont, Herman, & Newcomer, 2014; Salisbury & Cushing, 2013). Early interventionists employed by our agency, the University of Miami Miller School of Medicine, as well as subcontracted community-based agencies, worked closely with the child and the caregiver (i.e., parent, guardian, or teacher) as the primary vehicles of change. This evidence-based approach created an interactive process whereby the practitioner used coaching to teach techniques intended to: (1) develop new skills in children to overcome delay, and (2) help caregivers maintain skill development to prevent the need for future special education (Solomon, Van Egeren, Mahoney, Huber, Zimmerman, 2014). Relationship-based coaching practices improved caregiver participation and competency and were beneficial to teachers to enhance professionals' practices (Fleming et al., 2011; Gupta & Daniels, 2012; Kemp & Turnbull, 2014; Reinke et al., 2014; Salisbury & Cushing, 2013). Further, a care coordination model was an essential aspect of Early Discovery. Coordinating care for families with multiple health and social needs has been shown to improve overall intervention outcomes (Craig, Eby, & Whittington, 2011; Shier, Ginsburg, Howell, Volland, & Golden, 2013) by providing case management, systems navigation, and support for families who needed to access additional resources (Rizzo, Rowe, Shier Kricke, Krajci, & Golden, 2016).

Using this program design, we projected that children with mild delays pre-intervention would score within the average age range on respective post-intervention assessments. It was also essential to determine whether participating children needed special education services after services ended. It was projected that less than 20% of participating school-aged children required special education upon follow-up.



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Therapy was provided through classroom or home activities such as feeding, hand strengthening activities, holding pencils and crayons, and completing puzzles.

Program Participants

Participating children were referred from two federally funded agencies in Miami-Dade County, Early Steps and the Florida Diagnostic and Learning Resources System, after a comprehensive evaluation determined them ineligible for state-funded Part B or C early intervention services. Children from birth to 5 years old who received a standard score between 71 and 84 in at least one developmental domain (i.e., speech, motor skills, behavior, development) on the Battelle Developmental Inventory, Second Edition (Newborg, 2005) were referred to Early Discovery. Children functioning in this range were generally considered by state policy in Florida to be "mildly delayed" and thus did not receive Part B or C services. Following the referral, each child was assessed using the instruments described in the next section to determine eligibility to participate in the intervention. One assessment instrument was chosen for each child on the basis of the referral (i.e., speech-language, occupational, behavioral, or developmental), and children were eligible to participate in Early Discovery based on the results of the measure that pertained to their specific difficulty.

Overall, 938 children were assessed, and 868 children met eligibility criteria. Thus, data were collected and analyzed for these 868 children participating in Early Discovery from August 2015 to May 2018. The mean age at pretesting was 2 years, 2 months old; 38.3% of children were female and 61.7% of children were male. Participants were 71.3% Hispanic, 18% non-Hispanic, 6.2% Haitian, and 4.5% other or unknown. See Table 1 for additional demographic data.

Instruments

The following instruments were used by Early Discovery interventionists to evaluate eligibility for Early Discovery and assess post-intervention outcomes. Evaluations occurred either in the

Table 1. Participant Demographics

Variable	Number (percent)
Child Demographics	
Child Gender	
Female	350 (38.3)
Male	563 (61.7)
Child Race	
White	680 (74.6)
Black	191 (21.0)
Asian/Pacific Islander	3 (0.3)
American Indian/Native	8 (0.9)
Multiracial	9 (1.0)
Other/Unknown	20 (2.2)
Child Ethnicity	
Hispanic	646 (71.3)
Non-Hispanic	163 (18.0)
Haitian	56 (6.2)
Unknown/Other	41 (4.5)
Language Proficiency	
English	301 (33.1)
Spanish	312 (34.3)
Bilingual English/Spanish	295 (32.5)
Creole	1 (0.1)
Parent Demographics	
Family Status	
Military	1 (0.1)
Migrant	5 (0.6)
Dependency Court	46 (5.0)
N/A	861 (94.3)
Education	
Elementary or less	5 (0.6)
Some high school	36 (4.1)
High school diploma/GED	145 (16.6)
Technical training	31 (3.6)
Some college	160 (18.4)
Associate's degree	80 (9.2)
Bachelor's degree	231 (26.5)
Graduate degree	183 (21.0)
Preferred Language	
English	421 (49.1)
Spanish	287 (33.5)
Bilingual	148 (17.3)
Other	1 (0.1)

home or in the early learning program, depending on which setting was most convenient to caregivers.

Preschool Language Scales, Fifth Edition (PLS-5)

The PLS-5 (Zimmerman, Steiner, & Pond, 2011) was individually administered and assessed receptive and expressive language. Standard scores between 71 and 84 indicated a mild delay in language development and qualified a child to participate in Early Discovery.

Peabody Developmental Motor Scales, Second Edition

The scale (Folio & Fewell, 2000) assessed gross and fine motor skills of children birth through 5 years old and provided an overall estimate of motor ability. It consisted of six subtests, four of which assessed gross motor skills and two of which assessed fine motor skills. A Gross or Fine Motor Skills standard score that fell between 71 and 84 indicated a mild motor delay and designated a child eligible for occupational therapy.

The Devereux Childhood Assessment (DECA)

The DECA (LeBuffe & Naglieri, 1999) is a 37-item behavior rating scale which measured protective factors in children 2 through 5 years old. Parents rated 27 positive behaviors that comprised a Total Protective Factors composite and 10 behavioral concerns exhibited by preschoolers. The DECA provided scores in the following domains: (a) Initiative, (b) Self-control, and (c) Attachment, which comprised the Total Protective Factors composite, and (d) Behavioral Concerns. Subscale T-scores below 40 on the Initiative, Self-control, and Attachment subscales or above 60 on the Behavioral Concerns subscale rendered a child eligible for services (LeBuffe & Naglieri, 1999).

Brigance Inventory of Early Development II

The Brigance Inventory of Early Development—Second Edition (Brigance, 2010) is a developmental assessment for children from birth to 7 years old. It was designed to develop intervention strategies rather than to derive specific diagnoses. This assessment was divided into six areas of development: cognition, gross motor skills, fine motor skills, language, social-emotional development, and adaptive behavior. The cognitive domain was used for intervention evaluation. Standard scores between 71 and 84 indicated a mild delay and qualified children to participate in Early Discovery.

Program Staffing

Early Discovery was funded as a service partnership between the University of Miami Miller School of Medicine and community-based providers of early intervention. University staff included a contract/program manager, data tracking specialist, and three care coordinators. Community providers were private practice agencies contracted to provide therapeutic services. The program manager assigned a care coordinator to each child who was referred. Care coordinators maintained close relationships with families throughout intervention services and acted as a liaison between the family, community provider, and program manager. They assisted in supporting each family by providing additional community resources, educating the family

in collaboration with community providers, monitoring progress and satisfaction, and providing additional referrals if needed.

Intervention Services

Therapists administered a pretest within their scope of practice and constructed an individualized family intervention plan for each child. The intervention plan captured the strengths and needs of children with mild delays as well as the family's concerns, desired therapy, and expected outcomes. Similar to IDEA programs, individual intervention services were delivered in the least restrictive or natural environments in either the child's home or child care center. The duration of each intervention session was typically 45 minutes with a range of 30–60 minutes. Services for each child were provided one to three times per week and lasted 3 to 4 months, depending on the needs of the child. The number of sessions ranged from 12 to 16 as meta-analyses found the most effective early childhood interventions lasted fewer than 16 sessions (Bakermans-Kranenburg, van IJzendoorn, & Juffer, 2003). Upon completion of intervention, each child received a posttest to assess progress.

Care Coordination

The care coordination model was an essential aspect of Early Discovery. Coordinating care for families with multiple health and social needs was essential in improving overall intervention (Craig et al., 2011; Shier et al., 2013) and client outcomes (Rizzo et al., 2016). Care coordinators' duties were to provide case management, systems navigation, and support for families who needed to access additional resources. The goals were to assist the family in accessing needed services and resources, facilitate communication among multiple professionals, avoid duplication of services and unnecessary costs, optimize the physical and emotional health and well-being of the child, and improve the child's and family's quality of life.

The Early Discovery model of care coordination aligned closely with the Ambulatory Integration of the Medical and Social model (Rizzo et al., 2016). The following four steps were followed: (1) intake–patient engagement, (2) assessment and individual care plan development, (3) case management, and (4) ongoing care as needed. Services were delivered in person, by telephone, or both and were typically completed in 6 weeks.

Speech and Language Therapy

Speech–language pathologists and speech–language interventionists conducted interventions targeting delays in speech and language development. The range of services provided targeted development of vocabulary, receptive and expressive language, articulation, social use of language, and reading readiness. A non-inclusive list of intervention strategies included: (a) games and activities designed to stimulate language development, (b) interactive storytelling, (c) vocabulary expansion, and (d) identification and use of targeted speech sounds. Early Discovery aimed for significant improvement in expressive and receptive scores from pre- to post-intervention and a standard score of 85 or greater on the expressive and receptive domains on the PLS-5 following intervention.



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Children who participated in speech–language therapy, occupational therapy, behavior therapy, or generalized developmental therapy showed significant improvements.

Occupational Therapy

Occupational therapists and certified occupational therapy assistants conducted sessions targeting gross and fine motor skill development. Therapy was provided through classroom or home activities such as feeding (e.g., picking up small, round pieces of cereal), hand strengthening activities (e.g., using play dough), holding pencils and crayons, and completing puzzles. Early Discovery aimed for improvement in gross and fine motor functioning evidenced by significant improvement in standard scores. Treatment aimed to improve post-intervention fine and/or gross motor scores to within the average range or above, suggesting age-appropriate development.

Behavioral Intervention

Mental health therapists and behavior interventionists completed a full biopsychosocial evaluation and provided individual and dyadic (parent and child) intervention. Sessions focused on the specific behavior problem(s) identified in the intervention plan (e.g., difficulty expressing feelings or difficulty following directions) and used evidence-based practices such as play therapy, social skill-building, and behavioral parent management (e.g., child-directed interactions, positive reinforcement). Early Discovery aimed for significant improvements in the Initiative, Self-control, Attachment, and Behavioral Concerns subscales scores pre- to post-intervention. The goals were a Behavioral Concerns T-score less than 60 and Initiative, Self-Control, and Attachment T-scores above 40 post behavioral intervention.

Developmental Intervention

Developmental intervention services were provided by infant toddler developmental specialists. Services focused on treating children who had generalized delays in two or more domains of speech–language development, motor development, cognitive development, and/or social–emotional development. A non-inclusive list of strategies included interactive stories, singing, learning games, puzzles, play dough, and various motor



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Kelly Slade knows professional development. As a professional development coordinator for the Ohio Child Care Resource and Referral Association (OCCRRA) Office for Quality and Innovation, she participates

in trainings and is responsible for creating professional development for early childhood professionals throughout the state of Ohio.

OCCRRA, a statewide nonprofit membership organization, drives quality outcomes for Ohio's children and families through statewide services to professionals and programs. Services include management of the Ohio Professional Registry, Workforce Development Compensation programs, Ohio's Instructor and Training Approval system, development of statewide professional development offerings, and support to Ohio's Tiered Quality Rating & Improvement System (QRIS). OCCRRA was an early participant in *ZERO TO THREE's Critical Competencies for Infant-Toddler Educators™*.

OCCRRA started Training-of-Trainers sessions with 19 infant-toddler specialists receiving certifications across

the state. Ohio now boasts more than 2,900 early childhood professionals trained across three competency areas; Supporting Social-Emotional Development, Supporting Cognitive Development, and Supporting Language and Literacy Development.

"The Critical Competencies training is different than other training out there. It goes so much deeper."

KELLY SLADE

OCCRRA saw the ground breaking *Critical Competencies* training as a compliment to the technical assistance and coaching the specialists were already providing. It was also a natural fit to provide more professional development opportunities to improve practice, increase knowledge and skills, but also to help infant and toddler professionals in the state meet the professional development requirements of Step Up To Quality, Ohio's QRIS system.

Unique elements and takeaways from the *Critical Competencies* Training-of-Trainers Course include audio, video, and activity-based engagement resources; an

intentional focus on practical application; and an opportunity to learn from ZERO TO THREE faculty with deep expertise. Participants are encouraged to present information in different ways and adapt the trainings and activities to meet the needs of their audience and build a sense of community. "We knew the process would be more intensive going in, and knew it would be content-rich. What exceeded my expectations were the epiphanies that the (Ohio) instructors had about themselves during the process," said Slade.

*"When we learned about the **Critical Competencies**, and understanding the depth of the content, it was really applicable to those who were new to the field, as well as those who were master-level teachers who have been in the classroom for years. It offered something for everyone."*

KELLY SLADE

The Training-of-Trainers is just one of the ZERO TO THREE *Critical Competencies* research-based products and services that build essential knowledge and skills. These trainings are not "one and done" as Slade puts it. "We do follow-ups with participants to help us inform our next move. The feedback that we get about the experience, between the content and the length of time they spend together, has been great. Participants are involved in deeper discussions about their own implementation strategies, and the practical application in the field."

Slade noted that during the trainings, participants are "learning as much about themselves as they are learning how to better help others. These trainings are an incredible foundation." ■

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activities. Early Discovery aimed for a significant improvement in cognitive functioning as evidenced by standard scores from pre- to post-intervention.

Follow-Up

Follow-up was conducted in 2015–2018 to obtain information regarding special education status for children enrolled in kindergarten through second grade. Research assistants contacted families who participated in Early Discovery from June 2014 to June 2017 via telephone to ask whether the child was receiving special education services at school at that time.

Data Analysis and Results

We conducted a program evaluation of Early Discovery by assessing improvement in each respective developmental domain and statistical analysis (paired sample *t*-tests compared mean pre- and post-test scores using SPSS) compared children's scores on each of the assessment measures before and after participating in Early Discovery. See Table 2 for additional results.

Speech Therapy Outcomes

Speech therapists administered the PLS-5 (Zimmerman et al., 2011) pre- and post-intervention to 573 children who were receiving speech therapy. Consistent with programmatic goals, analyses showed significant improvements on both the expressive and receptive domains. The expressive language mean standard score fell within the mildly delayed range pre-intervention and improved to the average range post-intervention. The receptive language mean standard score fell within the average range pre-intervention; however, the improvement is noteworthy nonetheless, as Early Discovery aimed for global improvement in addition to the treatment target. The post-intervention receptive language mean standard scores improved significantly.

Occupational Therapy Outcomes

Occupational therapists administered the Peabody Scale (Folio & Fewell, 2011) pre- and post-intervention to 158 children who were receiving occupational therapy. Analyses revealed significant improvements in standard scores for both gross and fine motor skills. The gross motor skills and fine motor skills mean standard scores pre-intervention improved significantly post-intervention.

Behavior Therapy Outcomes

Behavioral interventionists administered the DECA (LeBuffe & Naglieri, 1999) pre- and post-intervention to 102 children who were receiving behavioral therapy. Results showed significant improvement across all domains. Mean scores improved on the Initiative, Self-Control, Attachment, and Behavioral Concerns domains pre- to post-intervention.

Developmental Therapy Outcomes

Developmental interventionists administered the Brigance (2010) pre- and post-intervention to 35 children who were receiving developmental therapy. For the purpose of this study, the Cognitive domain was analyzed. The Cognitive composite score showed significant improvement pre- to post-intervention.

Long-Term Follow-up

Given that one important goal of Early Discovery was to prevent children from needing special education in elementary school, data were collected via a follow-up phone survey asking parents about their child's need for special education services upon school entry (1–3 years after Early Discovery participation). To date, we have contacted 313 families whose child was enrolled in kindergarten through third grade. Of those who received services from 2014–2017: 86% (269 of 313) of

Table 2. Pre- and Post-Intervention Scores

Assessment (Domain)	Pre-intervention Mean (SD)	Post-intervention Mean (SD)	<i>t</i>	<i>p</i>
PLS-5 (Expressive Language)	79.49 (5.72)	92.57 (10.63)	-30.43	<.001
PLS-5 (Receptive Language)	90.28 (12.88)	99.90 (13.05)	21.12	<.001
Peabody Scale (Gross Motor Skills)	83.55 (12.80)	90.54 (13.45)	-7.12	<.001
Peabody Scale (Fine Motor Skills)	84.58 (13.40)	91.11 (14.83)	-6.86	<.001
DECA (Initiative)	42.23 (10.03)	54.85 (9.85)	-15.97	<.001
DECA (Self-Control)	35.98 (8.77)	47.42 (9.66)	-11.67	<.001
DECA (Attachment)	41.49 (8.35)	52.43 (9.66)	-12.26	<.001
DECA (Behavioral Concerns)	67.94 (5.63)	56.96 (9.38)	12.29	<.001
Brigance (Cognitive)	82.66 (7.00)	97.06 (8.58)	-9.99	<.001

Note: PLS-5 = Preschool Language Scale-5 (Zimmerman, Steiner, & Pond, 2011); Peabody Scale = Peabody Developmental Motor Scales, Second Edition (Folio & Fewell, 2000); DECA = Devereux Childhood Assessment (LeBuffe & Naglieri, 1999); Brigance = Brigance Inventory of Early Development-Second Edition (Brigance, 2010).

families reported that their children did not have an Individual Education Plan (9.3% missing, 1.9% do not know), 84.3% reported that their child was not receiving any outside services, and 86.9% reported that their child was not receiving services through Miami-Dade County Public Schools (9.3% missing, 1.6% do not know).

Discussion

The long-term consequences to children of not providing intervention services for mild developmental delays are abundant. What may begin as a mild developmental delay could progress to a more significant delay, requiring greater intensity of services throughout the child's academic career. A single, isolated developmental delay that is initially mild may evolve to manifest as a multitude of developmental delays across distinct domains. Thus, it is critical to investigate the potential benefits of early intervention for children with mild delays. As projected, children who participated in speech–language therapy, occupational therapy, behavior therapy, or generalized developmental therapy showed significant improvements in each respective domain from pre- to post-treatment. These outcomes were similar to findings of short-term intensive early intervention services for children with moderate to severe disabilities (Eldevik, et al., 2009; Guralnick, 2017; Smith et al., 2000). Furthermore, we succeeded in one of our goals, ensuring that children entered kindergarten not needing special education services. At follow-up, we surpassed our expected goal that 80% of participating children would not need special education services in elementary school. In actuality, approximately 86% of children sampled were not enrolled in special education in kindergarten through third grade. This finding highlighted the potential significance of programs targeting children with mild delays and supported the concept that early interventions benefit children with mild delays by preventing further decline.

A key feature of success was the care coordination model that ensured assessments were completed, services were implemented, follow-up was timely, and referrals to resources were provided as needed. Another practice that contributed to the success of the program was service provision at flexible times and locations to meet families' needs. All services were community-based and occurred in the naturalistic environment. In addition, highly qualified staff who developed strong, positive relationships with participants were critical to implementing this program. A culturally diverse staff experienced in working with disadvantaged populations is an absolute necessity in community-based programs. All staff had prior experience providing direct services to ethnically diverse low-income children and families and were culturally reflective of the community served while maintaining cultural competency through staff trainings.

Limitations of the Current Study

Though preliminary data supported improvement, the lack of comparison to a control group created difficulty in determining



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A culturally diverse staff experienced in working with disadvantaged populations is an absolute necessity in community-based programs pre- to post-treatment.

whether outcomes were directly related to the interventions provided via Early Discovery or other factors (e.g., parental guidance, variations in developmental progress, maturation). Similar to other early intervention programs (Holmes, Levy, Smith, Pinne, & Neese, 2015), Early Discovery was not initially conceptualized as a research study; rather, the program was implemented as a practical means of direct service provision. As a result, this article offers a program evaluation of Early Discovery. Future research should aim to compare improvements in developmental progress to control groups to rule out developmental maturation processes.

Study findings should be interpreted while considering the limitations of the measurements used. The reliability and validity of measures assessing development in young children can be questioned as scores can change based on a child's behavior or physical state (e.g., hunger, sleepiness, mood). Furthermore, some of the instruments were based on parent report. Parents may or may not be reliable informants and may underestimate or overestimate a child's abilities or behaviors.

Implications

Despite these limitations, the implications of our findings could have a great impact on future early intervention service provisions and policy. From a neuroscience perspective, early brain development is characterized by the rapid growth in neural connections and is influenced by experiences, relationships, and the environment (National Research Council & Institute of Medicine, 2000). Our findings support the idea that children with mild delays benefit from early intervention. Other programs may seek to work with Part B and Part C to identify children who do not qualify for services as means to identify children with mild delays. By identifying children with mild delays, we can work to ensure that they do not "fall through the cracks" or get worse after they enter the school system. The care coordinator was an essential aspect of the

program that others should consider using to ensure program success. Having a care coordinator as the primary contact for families was important in ensuring the families remained connected to the program, consistent program services were received, and barriers associated with obtaining services were addressed.

It is these same at-risk children whose families may have the greatest difficulties engaging in services, resulting in a variety of barriers to treatment. For example, caregivers may experience time constraints due to demanding work schedules and inflexible work hours. As such, our services were provided in the child's natural environment and at a time and location most convenient to the family. Next, language barriers and culturally related concerns may prevent some families from seeking and obtaining services. To target this barrier, all families were assigned to providers that speak their primary language, and all providers were trained in cultural sensitivity.

Further, seeking services for young children may place a financial burden on the family. Therefore, the program is fortunate enough to have grant funding from The Children's Trust of Miami-Dade County. Through the years, the Trust funded approximately \$3.1 million to see 1,150 kids. In order to assist with program buy-in and commitment and to ensure grant funds reached the maximum number of families, families were given a sliding scale in which they were asked to pay a nominal fee for services. If the family's annual household income was less than \$70,000, no fee applied. If their annual income was \$71,000 to \$110,000, a \$5 per session fee applied, and if income was more than \$110,000, a \$10 per session fee applied. About 84% received services for free, 5% paid a \$5 co-pay, and 11% paid a \$10 co-pay. In addition to financial stress, families may be experiencing other stressors including housing situations, obtaining food stamps, finding child care, and unemployment. Our care coordinators expanded social service resources to help meet families' needs by creating new partnerships with community agencies to facilitate service linkage.

Occasionally, other caregiver issues such as their own mental health needs posed a barrier to effectively engaging in services for the child. Thus, we established partnerships with community-based mental health organizations to facilitate referrals. In addition, caregivers were provided psychoeducation; evaluation results were reviewed thoroughly before and after treatment, intervention plans were created in collaboration with caregivers, and parent coaching was provided throughout the intervention. Finally, if we believed that a child received insufficient services and would benefit from longer-term, more intensive intervention, we facilitated transition of care.

Recommendations for Future Service Models

Without further advocacy and research evaluating the benefits of early intervention for these children, they will continue to

remain underserved and at risk. It may be helpful for programs to take a similar approach in which intervention is less directive, less artificial, and relies more on the integration of intervention activities within the home and school.

It is well documented that early intervention services decrease developmental delays, prevent future delays, and reduce the need for costly special education placement and long-term therapies. Given the recent funding cuts to Part B and Part C services provided through IDEA, an increasing number of children do not qualify for federally funded services. These children are still at risk, however. Our outcomes suggested interventions targeting children with mild delays prevented further developmental declines. Early Discovery can act as a model for other clinical and research programs targeting at-risk children to prevent declines in abilities that may otherwise require intense and costly exceptional student education. More research and cost-benefit analyses of such programs would likely benefit all children requiring intervention and lead to improvements in policies and local intervention services.

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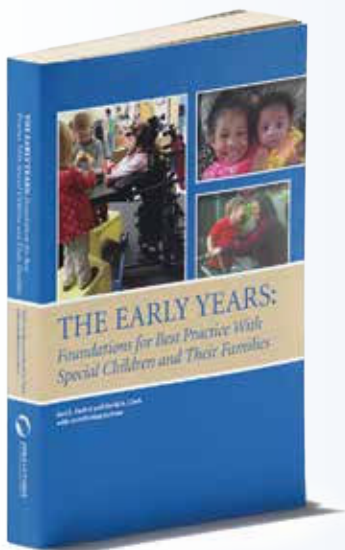
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