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An Evaluation of IDEA Part C Interventionists' Knowledge and Use of Evidence-Based Practices for Young Children with Challenging Behavior

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An Evaluation of IDEA Part C Interventionists' Knowledge and Use of Evidence-Based
Practices for Young Children with Challenging Behavior

by

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A thesis submitted in partial fulfillment
of the requirements for the degree of
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Date of Approval:
December 8, 2016

Keywords: Behavior Interventions, Infants and Toddlers

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Acknowledgments

I would like to thank the individuals who guided me through the completion of my thesis. To my co-major professor, Dr. Linda Raffaele Mendez, you have been a continual source of support not only for my thesis, but also throughout my graduate studies. You have served as a phenomenal mentor and instructor and have indelibly shaped my values as a future school psychologist. To my co-major professor, Dr. Emily Shaffer-Hudkins, you have been unwavering in your support of this project. Your excitement about the outcomes of this research continues to remind me of the importance of this scholarly endeavor. To both Drs. Raffale Mendez and Shaffer-Hudkins, you two have always demonstrated faith in my abilities, which has encouraged me to achieve above and beyond what I thought possible. To my final committee member, Dr. Robert Dedrick, you have been a valuable resource to my statistical analyses. Without you, I would not have constructed a study that so thoroughly answered my research questions.

I would also like to thank the peers in my cohort who have each uniquely impacted my experience while in graduate school. You are all special to me. Thank you to Emily Esposito, Casie Peet, Elizabeth Storey, Sarah Thoman, and Emily Wingate for your services in data analysis. To my family, thank you all for encouraging me to achieve my dreams. You are the true joy in my life. To Matthew, I thank you for your confidence in my capabilities and support of my educational aspirations. Without your unfailing love and support, I would not be who I am today. You are my inspiration.

Table of Contents

List of Tables	iv
Abstract	v
Chapter One: Introduction	1
Problem Statement	4
Research Questions	5
Significance of the Study	5
Terminology	6
Intervention agent (interventionist)	6
Early interventionist (EI)	6
Infant and toddler developmental specialist (ITDS)	6
Challenging behavior	7
Evidence-based practice	7
Limitations	7
Chapter Two: Literature Review	8
Prevalence of Challenging Behaviors in Young Children	8
Prevalence rates and outcomes	8
Best Practices for Treating Challenging Behaviors in Young Children	9
Positive behavior supports	9
The pyramid model	10
Preventive practices (tier 1 and 2)	11
Early intervention practices (tier 3)	12
Assessment-based interventions	12
Teaching procedures	14
Alteration of activities and physical environment (using antecedents)	16
Multi-component interventions	18
Family-centered approach	19
Additional considerations	20
Methods of Accessing Support	21
The healthcare system	21
Child Find	22
Out-of-home care	22
Available Supports	23
Community mental health services	23
Individuals with Disabilities Education Act Part C	24
Individuals with Disabilities Education Act Part C and Associated Services	24
General guidelines and services	24
Florida Early Steps	25

Limitations to Individuals with Disabilities Education Act Part C.....	28
Inconsistent policies.....	28
Professional development.....	29
Use of evidence-based practice.....	33
Limitations to IDEA Part C: Florida Early Steps.....	35
Differences in training backgrounds of interventionists.....	35
Limited professional development.....	35
Limited progress monitoring.....	36
Little professional monitoring of service-delivery.....	36
Conclusion and Purpose.....	36
Chapter Three: Method.....	39
Research Design.....	39
Participants.....	39
Data Collection Procedures.....	42
Data Analysis.....	45
Ethical Considerations.....	47
Chapter Four: Results.....	49
Question 1: What is Early Intervention Providers' Knowledge of EBPs for Young Children with Challenging Behaviors?.....	53
Theme 1: Insufficient training.....	54
Theme 1a: Shallow toolbox.....	56
Theme 2: ABA confusion.....	57
Theme 3: Attention only.....	60
Question 2: To What Extent, if any, are there Differences between Licensed and Non- Licensed Interventionists in the Knowledge and use of Evidence-Based Practices? ..	66
Question 3: How do Providers Decide Which Interventions Best Meet the Needs of the Child/Referral Concern?.....	68
Theme 4: Straight to strategies.....	68
Theme 5: Self-guided research.....	71
Question 4: What are the Current Treatments or Interventions that are Being Used to Address Challenging Behavior?.....	72
Theme 6: Problematic progress monitoring.....	73
Question 5: What are the Needs of Providers in Terms of the Development of Skills to Identify Evidence-Based Interventions for Children with Challenging Behaviors (Needs Assessment)?.....	76
Theme 7: Systems-level issues.....	76
Theme 8: IFSP limitations.....	79
Theme 8a: IFSP constraints.....	80
Theme 9: Parental/caregiver buy-in.....	82
Theme 10: Advocacy.....	86
Theme 11: IFSP identification.....	87
Theme 12: Clear communication.....	89
Theme 13: Consult accessibility.....	91
Theme 14: Increased training.....	93

Theme 15: Supplementary resources	96
Chapter Five: Discussion	100
Providers' Knowledge of EBPs for Young Children with Challenging Behaviors.....	101
Differences Between Licensed and Non-Licensed Providers.....	104
Interventionists' Decision-Making Process	105
Current Strategies Used to Address Challenging Behaviors	106
Needs of Providers.....	108
Implications for Practice.....	115
Contributions to the Literature.....	117
Limitations	118
Directions for Future Research.....	120
Summary	122
References.....	125
Appendices	133
Appendix A: Interview Protocol Questions	134
Appendix B: Interview Protocol Vignettes	135
Appendix C: Coding and Scoring Guidelines	136
Appendix D: IRB Approval	144
Appendix E: Informed Consent	146
Appendix F: Recruitment Flyer	150
Appendix G: Journals	151

List of Tables

Table 1: Demographic Information.....	41
Table 2: Summary of Themes.....	50
Table 3: Summary of Scores and EBPs.....	52
Table 4: Frequency of Intervention Strategies.....	75
Table 5: Barriers to Service-Delivery and Identified Solutions.....	98

Abstract

There is a limited understanding of the practices provided by interventionists under the Individuals with Disabilities Education Act Part C, and there is no knowledge of how providers deliver services for children who have challenging behaviors. In particular, few studies have examined the extent to which Part C interventionists use evidence-based practices. Decreasing occurrences of challenging behaviors in early childhood is particularly important, as there are many negative ramifications associated with untreated challenging behaviors, including troubled peer and adult relationships, academic failure, and increased antisocial behaviors in adulthood. Research has shown that Positive Behavior Supports and the Pyramid Model are empirically supported frameworks for treatment of challenging behaviors among young children. Thus, interventionists should be utilizing PBS when serving young children with challenging behaviors.

The purpose of this study was to gain a preliminary understanding of Part C interventionists' knowledge and understanding of evidence-based practices for young children with challenging behaviors and to identify interventionists' process of intervention identification and implementation. Also examined were the challenges associated with service-delivery and the role of Part C in alleviating such challenges. This understanding was gained through semi-structured interviews with a sample of 10 interventionists who served young children with challenging behaviors. A thematic analysis resulted in 15 themes and two subthemes. In addition, interventionists were evaluated using a 4-point rating scale, which provided additional insight regarding the level of evidence-based practice utilized by interventionists. Themes and ratings

revealed interventionists have a limited understanding of best practice associated with identifying appropriate evidence-based interventions for young children with challenging behavior. Moreover, a number of barriers hindered consistent implementation of behavioral interventions. Results indicated a need for a wider scale study of Part C interventionists' practices. In addition, results demonstrated a critical need for ongoing professional development for Florida Part C interventionists.

Chapter One:

Introduction

Challenging behaviors occur at a rate of 10-20% in young children from birth to age five (Campbell, 1995). Untreated challenging behaviors result in a host of negative outcomes, including peer rejection, troubled family relationships, negative teacher interactions, academic difficulties, special education categorization, school drop out, low job success and low income, and general antisocial behavior patterns in adulthood (Fox & Smith, 2007).

The negative outcomes associated with untreated challenging behaviors of early childhood reflect an important need for early prevention and intervention services. Best practices for treating young children with challenging behaviors are derived from the broader public health model, wherein service-delivery occurs through a three-tiered support system (Fox & Smith, 2007). This service-delivery model is broadly known as Positive Behavior Supports (PBS; Dunlap & Conroy, 2003).

The use of PBS for children with challenging behavior has been increasing since 1984 (Conroy, Dunlap, Clarke, & Alter, 2005). PBS is derived from long-standing and empirically supported strategies such as applied behavior analysis and the normalization/inclusion movement (Carr et al., 2002). In particular, the field of applied behavior analysis has provided a significant platform of research upon which PBS is based (Carr et al., 2002). Ideas and methodologies such as the three-term contingency, functional analysis, and interventions for decreasing problem behavior and increasing desirable behavior have each been derived from the 30 plus years of research in applied behavior analysis (Carr et al., 2012). Applied behavior analysis promotes the

implementation of interventions within the natural environment, which is also a hallmark of PBS (Carr et al., 2012).

In addition to applied behavior analysis, PBS has a significant stake in the normalization/inclusion movement (Carr et al., 2012). This movement has had a long and significant history in the United States and promotes the inclusion of students with disabilities within the general education classroom (Carr et al., 2012). The inclusion movement relates to children with challenging behaviors by providing those who might otherwise be classified as having an emotional/behavioral disability with significant levels of support within the general education classroom (Carr et al., 2012).

Although PBS was developed for school-aged children, there is a model for young children known as the Pyramid Model (Fox & Smith, 2007). One hallmark of the Pyramid Model is its emphasis on family-centered practice. This is significant because at the pre-kindergarten level, parents are the persons spending the greatest amount of time with children (Dunlap et al., 2006; Fox & Smith, 2007). The Pyramid Model is a four-level, three-tier model (Fox & Smith, 2007). The first tier is made of the first two levels and is targeted towards universal supports (nurturing and responsive caregiving relationships and high-quality, supportive family and living environments; Fox & Smith, 2007). The second tier is made of one level and is targeted towards preventing the development of challenging behaviors for children who are at-risk for developing social-emotional difficulties (targeted social-emotional supports; Fox & Smith, 2007). The third tier is made of one level and is targeted towards children identified as having significant social-emotional difficulties (intensive intervention; Fox & Smith, 2007).

Dunlap et al. (2006) reviewed the PBS literature to summarize the evidence base for prevention and intervention services delivered through the second and third tier of the Pyramid

Model. As a result, five major procedures for the identification and implementation of services were identified. The strategies identified included assessment-based interventions, which would include conducting a functional behavioral assessment to identify the environmental factors maintaining the behavior; teaching strategies, which would include Functional Communication Training and strategies for self-management (the purpose of these is to teach children appropriate replacement behaviors); antecedent-based interventions, which would include strategies like choice-making and including preferences in non-preferred activities (these modify the environment so the opportunity to engage in the target behavior is not presented); multi-component interventions, which would include elements of many intervention types and is typically the intervention method used in practice; and family-centered practices, which would include family as a central intervention agent for identification and implementation of services.

Young children with challenging behaviors can be identified through several venues. The most common ways children are identified are through caregiver referral, the healthcare system (pediatrician), or out-of-home care such as daycare or pre-school (Powell, Fixsen, & Dunlap, 2003). Once children are identified, they can access services through federal and state funded programs such as the Individuals with Disabilities Education Act (IDEA) Part C.

IDEA Part C is the federally mandated early prevention and intervention service for children birth to 36 months who are at-risk for developmental delay or who have been identified as being developmentally delayed (United States Department of Education, 2014).

“Developmental delay” is defined by state guidelines (United States Department of Education, 2014). A central component of IDEA Part C is the family-centered approach, wherein parents and caregivers are included as part of the service-delivery process and services are delivered in the child’s natural environment (United States Department of Education, 2014). As part of IDEA

Part C, states are given a degree of flexibility in service-delivery policy (United States Department of Education, 2014).

Problem Statement

The flexibility in state policy has created several limitations to IDEA Part C services. One limitation is inconsistent policies across states with regard to service-delivery (Stahmer & Mandell, 2007). Another limitation is that professional development opportunities for interventionists are inconsistent across states or non-existent (Bruder, Mogro-Wilson, Stayton, & Dietrich, 2009). When professional development opportunities are delivered, the extent to which they are applied in practice is variable (Campbell & Halbert, 2002; Salisbury, Cambray-Engstrom, & Woods, 2012). Finally, use of evidence-based practices (EBPs) among Part C interventionists has been studied very little. In fact, only two studies have examined the extent to which EBPs are used among Part C interventionists, and findings suggested limited knowledge and use of empirically supported practices (Stahmer, 2006; Stahmer, Collings, & Palinkas, 2005). Findings from such studies implicate the need for better training in order to ensure appropriate intervention services are provided to young children.

In terms of the Florida Part C Early Intervention Program known as Early Steps, little is understood about the treatment of children with challenging behaviors, interventionists' knowledge and use of EBPs, or the professional development needs of the interventionists. Further, there are some challenges with regard to the program. First, there is a vast difference in training backgrounds among interventionists. While some hold graduate-level degrees and are licensed, others hold Bachelor's degrees outside of the field of child development. Another challenge is the minimal professional development available to interventionists after they have been hired and trained. Training in and of itself poses some challenges, as it consists of only six

online modules. Another major concern is providers are not monitored with regard to the interventions they are implementing, so nothing is known about the extent to which interventions are grounded in research. Furthermore, the extent to which interventions are implemented with integrity is unknown, and progress-monitoring data are collected only once every three months (Children's Medical Services Early Steps Policy Handbook and Operations Guide, 2012). No research to date has examined any of the challenges associated with Early Steps.

Research Questions

The research questions for this study were related to the associated gaps in the literature with regard to IDEA Part C and Early Steps. Five research questions were posed:

1. What is early intervention providers' knowledge of evidence-based practices for children with challenging behaviors?
2. To what extent, if any, are there differences between licensed and non-licensed interventionists in the knowledge and use of evidence-based practices for challenging behavior?
3. How do providers decide which interventions best meet the needs of the child/referral concern?
4. What are the current treatments or interventions that are being used to address challenging behavior?
5. What are the needs of providers in terms of the development of skills to identify evidence-based interventions for children with challenging behaviors (needs assessment)?

Significance of the Study

Given the limited research surrounding the use of EBPs in Part C in general and the lack of research surrounding Early Steps in particular, the questions this study attempted to answer

contributed significantly to the literature, particularly with regard to organizational policy and practice of Early Steps. Examining the use of EBPs for young children with challenging behaviors was particularly salient, given the negative outcomes associated with untreated, or mistreated, challenging behaviors. The findings from this study also necessitated further evaluation of Early Steps and IDEA Part C as a whole. Thus, the purpose of this study was four-fold: 1) to gain a preliminary understanding of Early Steps interventionists' knowledge and use of EBPs for young children with challenging behaviors, 2) to identify the interventionists' process of intervention identification and implementation, 3) to examine the challenges associated with service-delivery, and 4) to determine how Early Steps can alleviate such challenges. This understanding was gained through semi-structured interviews with a small sample of Part C interventionists who served young children with challenging behaviors.

Terminology

Intervention agent (interventionist). An intervention agent was defined as any Part C or Early Steps provider who delivered services to a parent and child in the child's natural environment. Interventionists at Early Steps were subcategorized into Early Interventionists and Infant and Toddler Developmental Specialists.

Early interventionist (EI). An EI was any interventionist who had graduate training and held licensure in one of 20 areas (e.g., licensed clinical social worker, school psychologist, licensed mental health counselor) and had at least one year of post-degree experience with children birth to 60 months.

Infant and toddler developmental specialist (ITDS). An ITDS was any interventionist who held one of seven in-field Bachelor's degrees and had at least one year of experience working with the early childhood population. Alternatively, they did not need one of the in-field

degrees if they had at least five years of experience working with the early childhood population. ITDSs were also Board Certified Behavior Analysts, Board Certified Assistant Behavior Analysts, or vision or hearing specialists.

Challenging behavior. The definition of challenging behavior was taken from Smith and Fox (2003), and was conceptualized as a social-emotional impairment, which included “any repeated pattern of behavior, or perception of behavior, that interferes with or is at risk of interfering with optimal learning or engagement in prosocial interactions with peers and adults” (p. 5).

Evidence-based practice. The definition of evidence-based practices was also taken from Smith and Fox (2003), and was conceptualized as, “the level of evidence that supports the efficacy and generality of a practice as indicated by research” (p. 5).

Limitations

While this study contributed to the knowledge and understanding of intervention practices, it was not generalizable to other interventionists’ cases of challenging behaviors, statewide intervention practices, or nationwide Part C practices because of the small sample size. Further, the non-randomly selected sample could have resulted in data that were not representative of typical interventionists. Finally, there was a possibility for interventionists to respond to interview questions in a way they perceive to be socially acceptable (social desirability bias). However, if the perception of socially acceptable practices was to use EBPs, then the first research question was still answered. On the other hand, the extent to which EBPs are used is possibly unknown if the interventionists were dishonest.

Chapter Two:

Literature Review

This section gives a broad overview of the central elements of this research project. The elements include an introduction to the prevalence of challenging behaviors in young children and the best practices for treating young children with challenging behaviors; methods for accessing supports; supports available for young children with challenging behaviors, which include IDEA Part C services and the Florida Early Steps program; and limitations to IDEA Part C in general and Early Steps in particular. This section concludes with the significance of this research study.

Prevalence of Challenging Behaviors in Young Children

Prevalence rates and outcomes. In children from birth to age five, challenging behaviors occur at a rate of between 10 and 20% in the general population (Campbell, 1995) and between 10 and 40% among children served under IDEA Part C (U.S. Department of Education, 2001). These high prevalence rates mean the majority of Part C service providers will encounter at least one child with challenging behaviors.

Social-emotional and academic outcomes associated with children who have challenging behaviors are particularly negative. Socially, children with challenging behaviors often have poor peer relationships characterized by rejection and negative teacher and family interactions (Dunlap et al., 2006). Academically, young children with challenging behaviors are more likely to receive special education placement and are more likely to drop out of school (Fox & Smith, 2007). Children with challenging behaviors are less likely to have high paying jobs in adulthood

and are more likely to exhibit antisocial patterns of behavior in adulthood (Fox & Smith, 2007). Consequently, early prevention and intervention is the most economical avenue for reducing and resolving challenging behaviors and their associated outcomes (Dunlap et al., 2006). Not only do challenging behaviors have significant effects on the child, but they also affect the parents. In particular, challenging behaviors increase parental stress, which in turn affects parent responses to the child, which further exacerbates the child's behavior (Baker et al., 2003; Lecavalier, Leone, & Wiltz, 2006). The stress that results from behavior problems also negatively impacts parents' mental health, marital relationships, family relationships, and community relationships (Webster-Stratton & Spitzer, 1996). Thus, the need to understand how to treat young children with challenging behaviors is particularly important for promoting better social, academic, and life outcomes.

Best Practices for Treating Challenging Behaviors in Young Children

The outcomes associated with challenging behaviors and the high prevalence of challenging behaviors in young children calls for a strong understanding of best practice for service-delivery. A literature review of best practice for treating young children with challenging behaviors has shown PBS to be efficacious in decreasing challenging behaviors and increasing desirable behaviors. A description of PBS and its associated interventions are given below.

Positive behavior supports. PBS is “a group of intervention strategies that are highly individualized, based on scientific principles and empirical data, grounded in person-centered values, and designed to prevent the occurrence of challenging behaviors” (Dunlap & Conroy, 2003, p. 5). PBS is described across the literature and it includes a multi-component process for an evidence-based service-delivery model. Currently, PBS for young children lends itself to a framework known as the Pyramid Model (Fox & Smith, 2007).

The pyramid model. The Pyramid Model is a four-level framework for early intervention that was adapted from the broader public health model (Fox & Smith, 2007). The public health model for promotion, prevention, and intervention services is a three-tiered approach to develop children's social, emotional, behavioral, and academic skills (Fox & Smith, 2007). At the first tier, universal, program-wide supports are delivered; at the second tier (15% of the population), children at-risk for school failure are given more individualized supports that are typically delivered in the context of a small group; and at the third tier (5% of the population), intensive, individualized supports are delivered for children who show symptoms of a disorder (Fox & Smith, 2007).

The Pyramid Model as described by Fox and Smith (2007) is directed specifically towards young children with social-emotional difficulties and challenging behaviors. At the first tier, young children receive two levels of universal support: responsive supports and supportive environments. Implementation of universal supports should include components such as providing information for families to facilitate high-quality relationships with children and promote healthy social-emotional traits, providing mental health screeners for mothers at-risk for depression, providing mental health and behavioral support via early childhood programs, and developing environments that lend themselves towards preventing social-emotional and behavioral problems.

Fox and Smith (2007) described the second tier as targeting young children who are at-risk for developing social-emotional and behavioral problems. Such children are identified through screening practices and are given targeted supports. Implementation of secondary supports for children who are at-risk should include providing families with mental health

services. In addition, individualized supports that include approaches to increase social-emotional skills should be developed.

Fox and Smith (2007) described the third tier as targeting children who are identified as having social-emotional problems or challenging behaviors. Such children are targeted for highly individualized intervention services. Implementation of tier three supports should include PBS identified through a team-based assessment procedure. Supports implemented by the child's parent or teacher in the home or at school. Additionally, supports should be individualized and aimed at parent-child relationships. Finally, supports should take a multi-disciplinary approach that ensures children and families receive the most comprehensive care. In order to effectively deliver PBS through tiered supports, interventionists must possess a number of skills to identify appropriate and evidence-based supports.

Preventive practices (tier 1 and tier 2). Dunlap et al. (2006) reviewed the literature to find protective factors that facilitated prevention of challenging behaviors among young children. Findings suggested children who accessed mental and physical healthcare were at reduced risk for the development of challenging behaviors. In addition, children who had access to a healthy, nurturing relationship were less likely to develop challenging behaviors. Finally, children who experienced quality relationships with parents and teachers tended to have greater social skills and lower rates of challenging behaviors. Thus, it may be most beneficial for prevention practices to be directed towards developing healthy relationships with others. For the purposes of this research study, more focus was placed on Tier 3 supports, given that the children served under IDEA Part C are in need of intensive intervention, rather than universal or prevention services.

Early intervention practices (tier 3). Intervention practice for young children with challenging behaviors is a multimodal process. Dunlap et al. (2006) identified five major procedures for early interventions through a comprehensive review of the literature: assessment-based interventions, teaching procedures, antecedent-based strategies, multi-component interventions, and family-centered intervention services. Caregivers or teachers in the home or at school can use these interventions. Empirical limitations to these procedures include small sample sizes and pre-school aged samples, not infants and toddlers.

Assessment-based interventions. The first procedure identified by Dunlap et al. (2006) was assessment-based interventions. Functional behavioral assessments (FBAs) provide valuable information such as the antecedents, consequences, and variables maintaining the challenging behavior. Thus, the assessment facilitates intervention identification and implementation. Further, Newcomer and Lewis (2004) found interventions that used data from an FBA were more effective than interventions that were not designed based on the function of the behavior.

Wood, Ferro, Umbreit, and Liaupsin (2011) used assessment-based interventions to decrease three children's challenging behaviors in the classroom. The study was implemented in three phases. During phase one, data were collected through an FBA. The FBA included parent/teacher interviews and direct observations. The data from the interviews and observations were used to identify the function of the behavior. In phase two, the researchers and teacher designed the interventions based on the results of the FBA. During phase three, the researchers implemented the intervention using a multiple-baseline across children design. For all children, interventions included modifying antecedent variables, reinforcing appropriate alternative behaviors, and withholding reinforcement in the presence of the target behavior. Results

indicated assessment-based procedures were effective at decreasing problem behavior and increasing on-task behavior. Furthermore, the gains were maintained at follow-up.

Similarly, Cho Blair, Fox, and Lentini (2010) evaluated the efficacy of assessment-based interventions for three children in an early childhood community program. The interventions aimed to decrease problem behavior and increase engagement. Researchers conducted an FBA to identify antecedents and consequences of the problem behavior. The FBA consisted of interviews with classroom staff and mothers and a structured videotape observation of the children during circle time (the targeted condition). The researchers collaborated with classroom teachers to develop hypotheses focused on environmental stimuli that functioned as the antecedents to the behavior. The researchers and teachers then developed behavior support plans based on the FBA and subsequent hypotheses. The interventions were implemented with a multiple-baseline across participants procedure. Elements of the intervention included prevention strategies, teaching strategies, and response strategies. Finally, researchers conducted generalization probes to find whether the effects of the intervention were present in other routines. Results indicated that assessment-based interventions were successful at reducing problem behavior and increasing student engagement. Further, the effects of the intervention generalized to other settings and were maintained at follow-up. Finally, teachers reported PBS impacted the classroom atmosphere positively and reduced teacher stress.

An additional type of assessment-based intervention strategy is the token economy, which is one of the most common and evidence-based class-wide interventions used to decrease problem behavior and increase desirable behavior (Klimas & McLaughlin, 2007). Klimas and McLaughlin (2007) implemented token economies with an individual six-year-old child with disabilities who had social and academic behavioral concerns. The authors conducted sessions

for 30 minutes each morning in the participant's classroom for two weeks. Behaviors recorded included time to completion (for assignments), number of assignments completed, and frequency of inappropriate behaviors. The intervention was implemented using an ABC design. Throughout the baseline condition, the student participated in classroom activities where she was asked to complete three assignments. The classroom response-cost procedure was implemented when the participant engaged in inappropriate behaviors or did not complete classroom assignments. During the first intervention procedure, the participant was asked to complete three assignments and earned one token for every assignment completed. When the participant earned three tokens, she was allowed to engage in a preferred activity for five minutes. During the second intervention procedure, the participant was asked to complete five assignments and earned one token for every assignment completed. When the participant earned five tokens, she was allowed to engage in a preferred activity for five minutes. Results indicated that during intervention, there was an increase in number of assignments completed and a decrease in amount of time to complete assignments and frequency of inappropriate behaviors compared to baseline. Thus, the results lend support for the use of token economies for young individuals with challenging behaviors.

Teaching procedures. The second intervention procedure identified by Dunlap et al. (2006), was teaching procedures. Children with challenging behaviors often do not have the tools to appropriately manage their emotions. Children can learn appropriate replacement behaviors through teaching procedures, which has been shown to be a particularly effective intervention for young children with challenging behaviors. Specific teaching interventions that have been shown to be efficacious include Functional Communication Training (FCT) and self-management.

FCT is a type of assessment-based intervention procedure, wherein the function of the behavior is identified through an assessment, and then the behavior is replaced with an equivalent communicative response (Dunlap, Ester, Langhans, & Fox, 2006). Dunlap et al. (2006) used a multiple-baseline across home routines procedure to evaluate the efficacy of FCT with toddlers in their home environment. Two children between the ages of two and three participated in the study. Researchers asked mothers to identify routines that were most concerning, and then mothers were interviewed as part of the FBA. After baseline data were collected, mothers were trained to use FCT. Throughout intervention implementation, two observers used the Severity Rating Scale to rate the children's behaviors. Both children's target behaviors decreased after intervention implementation, thus, demonstrating the efficacy of FCT in the home environment. In addition, the mothers were able to successfully implement FCT and reported the effectiveness and appropriateness of the procedure.

Another teaching intervention is self-management. Kern, Ringdahl, Hilt, and Sterling-Turner (2001) described two methods of self-management. The first method includes providing reinforcement at the end of a specified period of time if the target behavior occurred at or below a specified criterion. The second method includes monitoring either the target behavior or a behavior that is incompatible with the target behavior. Kern et al. (2001) used self-management procedures for three boys aged four, seven, and eight years with challenging behaviors. The researchers conducted a functional analysis, wherein the function of the behavior was determined by isolating conditions where escape, attention, and access to tangibles could occur. The researchers then implemented an intervention using an A-B-A-B design. During intervention, children were taught appropriate replacement behaviors and methods for recording the occurrence of the behaviors using a self-management recording sheet. Further, the participants

accessed reinforcement for engaging in behaviors that were either incompatible with or functionally equivalent to the target behavior. Each participant's behavior decreased during intervention, while use of appropriate alternative behaviors increased. Thus, use of self-management strategies informed by an assessment has evidence for its efficacy for children as young as four years of age.

Alteration of activities and physical environment (using antecedents). The third intervention procedure identified by Dunlap et al. (2006) was alteration of the child's activities and social and physical environment. Such procedures are identified as antecedent-based because they prevent the occurrence of the behavior, rather than interfering with the challenging behavior. Unlike teaching a replacement behavior, antecedent-based interventions promote the likelihood of an alternative behavior occurring by removing the stimulus that precedes the behavior. The increase in appropriate behaviors likewise increases the opportunities for reinforcement for engaging in appropriate behaviors. Specific interventions include choice-making, utilizing the child's preferences, and re-arranging the environment.

Although studies evaluating choice-making for young children (birth to five years) have seldom appeared in the literature, it has been cited frequently by others as a developmentally appropriate practice for young children (Green, Mays, & Jolivette, 2011; Jolivette, Stichter, Sibilsky, Scott, & Ridgley, 2002; McCormick, Jolivette, & Ridgley, 2003; Strain & Hemmeter, 1997). Dunlap et al. (1994) used choice-making strategies for a five-year-old boy with challenging behaviors. Prior to intervention, the child received reinforcement for emitting appropriate behaviors; however, disruptive behaviors still occurred during many of the observed baseline intervals. An A-B-A-B design was used to implement the choice-making intervention. During the choice-making condition, the child was allowed to choose the book read to him

during reading circle. Choice-making conditions rendered significant increases in task engagement and significant decreases in disruptive behaviors compared to the no-choice conditions.

Another antecedent-based intervention involves capitalizing on the child's preferences. Umbreit and Blair (1997) tested two hypotheses regarding the maintenance of a four-year-old boy's problem behavior. An FBA was conducted prior to hypothesis development. The FBA included an interview with the director and six staff members of the childcare center the child was attending. In addition, the FBA included a structured observation that identified antecedents and consequences of the behavior. The hypotheses were that the child would either a) improve behavior when preference was embedded in the activity, or b) improve behavior when choices were given. Once hypotheses were tested, it was evident the child's problem behavior decreased and appropriate behavior increased with the introduction of preference, but not choice. An intervention was then designed to incorporate preference into the child's routines. A multiple-baseline across activities design was implemented. When the intervention was implemented, the child's problem behavior decreased markedly, while rates of compliance increased and maintained throughout the study.

A final antecedent-based intervention involves re-arranging the environment to prevent the occurrence of challenging behaviors. Re-arrangement of the classroom can include procedures like re-arranging furniture, using activity schedules, and modifying instructions (Dunlap et al., 2006). Dooley, Wilczenski, and Torem (2001) addressed challenges associated with transitions for a three-year-old with pervasive developmental disorder by implementing an activity schedule. A functional analysis and parent interview conducted by the researchers revealed the child's problem behavior was present during transition times and maintained by

escape. The researchers used an A-B design. The Picture Exchange Communication System, a type of FCT, was used to signal a transition and prepare the child to make the transition. During intervention, the teacher and the child reviewed the child's schedule board at the beginning of the day and moved the child's picture to the first activity. When it was time to make a transition, the teacher turned off the lights and gave a verbal cue at which time the child would move his picture on his schedule board to the next activity. During intervention, rates of compliance increased, while rates of disruption decreased relative to the baseline condition.

Multi-component interventions. The fourth procedure identified by Dunlap et al. (2006) was the implementation of multi-component interventions. Use of multi-component interventions is especially effective because they yield generalization of prosocial behavior to new settings. Frequently, multi-component interventions access antecedent-based and assessment-based strategies for reducing problem behavior.

Many of the previously discussed studies used multi-component interventions (e.g., Cho et al., 2010; Dooley et al., 2001; Wood et al., 2010). Chandler, Dahlquist, Repp, and Feltz (1999) implemented multi-component interventions for preschool children in at-risk classrooms ($N = 3$ classrooms) and special needs classrooms ($N = 8$ classrooms). The results were measured against control classrooms ($N = 4$) of typically developing preschoolers. Classroom "team members," were trained to conduct functional assessments. Four students from each treatment classroom were assessed and interventions were subsequently designed and implemented. The students were measured across several topographies, including challenging behavior; active-, passive-, and non-engagement; and peer interaction. Individual student's behaviors were observed and coded for the topographies, which were averaged per classroom to obtain a mean percentage. Further, observers measured teacher implementation of multiple behavioral strategies using the

Observer Rating of Ecobehavioral Variables Scale. The data were analyzed using a multivariate analysis of variance. The variables included were behavior, conditions/time, classroom type conditions, and classroom type interactions. Overall, challenging behavior and non-engagement decreased in both classroom types, while active engagement and peer interaction increased in both classroom types. Teachers' use of the identified behavioral strategies increased across students and classrooms as a whole. All variables for students (with the exception of prosocial behavior in the special needs classroom) maintained at follow-up to at least the level of the control classrooms. In addition, teacher use of functional assessments and use of behavioral strategies identified during intervention were maintained at follow up. Results provide support for use of multi-component interventions across many topographies at the preschool level.

Family-centered approach. Finally, Dunlap et al. (2006) illustrated the importance of a family-centered approach to intervention services. Families are large stakeholders in the social, emotional, and behavioral success of a child. Thus, parent and family training are integral to the success of early intervention practices. Family-centered interventions include teaching strategies for using reinforcement and increasing compliant behavior.

Parents can access support for challenging behaviors through parent training programs such as the Incredible Years program (Menting, Orobio de Castro, & Matthys, 2013); Helping Our Toddlers, Developing Our Children's Skills (HOT DOCS; Childress, Agazzi, & Armstrong, 2011); and the Positive Parenting Program (Sanders, Kirby, Tellegen, & Day, 2014), all of which provide support for parents and teach them effective problem-solving skills.

Another promising support for parents is that of training and coaching parents to use strategies targeted at the function of the challenging behavior (Fettig, Schultz, & Sreckovic, 2015). Fettig et al. (2015) implemented a multiple baseline across participants design for three

parent-child dyads. An FBA was conducted prior to baseline data collection, which included parent interviews and direct observations. Next, the researchers worked with the parents to create a behavior intervention plan and trained the parents to implement the plan. Following training, parents were asked to implement the intervention. The next phase of the intervention included a coaching component from one of the researchers, where the parents were given explicit guidance throughout intervention implementation. Results indicated parents intermittently administered behavior management interventions following training, but after coaching, they consistently implemented the interventions. Further, children's challenging behaviors decreased most following coaching procedures. Fetting et al. (2015) highlighted the importance of providing parent support as they learn behavior management strategies. Moreover, Fetting et al. (2015) added to the empirical research base for providing an in-home, family-centered collaborative approach to addressing young children's challenging behaviors.

Additional considerations. In addition to the procedures highlighted by Dunlap et al. (2006), Fox, Dunlap, and Powell (2002) noted considerations for implementing behavior supports for young children with challenging behaviors, particularly for those children living in poverty. One consideration is cultural competence. Fox et al. (2002) noted the need for interventionists to establish rapport with the families they serve and do their best to identify with cultural sanctions in order to provide services that are acceptable to the client. Another consideration is the use of strengths-based philosophies. This means interventionists should be adopting interventions that focus on the strengths of the caregivers and families. In addition, strengths-based philosophies refer to the importance of collaboration with families, where the role of the interventionist is not that of an "expert," but of a facilitator for effective interventions. A third consideration is service-delivery should be comprehensive. This means interventionists

must not only focus on the referral concern, but also on broader environmental concerns that affect the family, and thereby, affect the child. A final consideration is that children and families need supports on a continuum. This means that each case should be uniquely served, as the amount of support needed for particular concerns may differ depending on the case.

Methods of Accessing Support

There are a few ways in which parents or caregivers of young children with challenging behaviors are referred for support. Powell, Fixsen, and Dunlap (2003) noted, however, there is little research in this area, and in particular, there is virtually no research comparing the methods for which children are screened or referred for services. The methods for accessing support are as follows.

The healthcare system. The most prevalent method for identifying challenging behaviors is through the child's health care provider (Powell et al., 2003). Caregivers of young children with challenging behavior often refer themselves to the pediatrician as a preliminary method of accessing supports and identifying services. Pediatricians then provide screening and referral services for young children with challenging behaviors. In particular, the American Academy of Pediatrics provides recommendations for screening children for developmental and behavioral abnormalities. Specifically, children are recommended to receive developmental screenings at nine, eighteen, and thirty months; autism screenings at 18 and 24 months; and developmental surveillances and psychosocial/behavioral assessments 12 or more times within the first four years (American Academy of Pediatrics, 2014). Despite these recommendations, pediatricians infrequently use screening practices as directed (Radecki et al., 2011; Stancin & Palermo, 1997). In a seven-year examination of pediatricians' practices, Radecki et al. (2011) found pediatricians increasingly used at least one recommended screening tool from a rate of

23% of pediatricians in 2002 to nearly 48% in 2009. However, this still leaves an alarming number of pediatricians who do not frequently use screening tools. As a result, a large number of children who have a variety of concerns, including challenging behaviors, are not referred for appropriate early intervention services. Furthermore, an older approximation revealed just 50% of children with challenging behaviors specifically are identified by pediatricians (Stancin & Palermo, 1997). Moreover, only a small number of children are referred for mental health services when pediatricians successfully identify children with significant challenging behaviors (Stancin & Palermo, 1997).

Child Find. Caregivers may also self-refer to the state's Child Find program, which is a screening and referral program under IDEA (United States Department of Education, 2014). In Florida, parents who have concerns regarding their child's vision, hearing, speech, learning, behavior, or overall development are directed to contact the Child Find team via telephone (Florida Diagnostic and Learning Resources System, 2015). Different Child Find teams may also service infants, toddlers, and pre-school aged children by appointment on specific dates throughout the year (Florida Diagnostic and Learning Resources System, 2015). The Child Find screening is free, and children who qualify for services receive referrals to appropriate specialists (Florida Diagnostic and Learning Resources System, 2015). Children who qualify for services may be served under the federally funded IDEA Part C and Part B programs (Florida Diagnostic and Learning Resources System, 2015).

Out-of-home care. Another common method for identification and referral services is through out-of-home care such as preschool (e.g., Head Start) or daycare. Because many children spend their day with a caregiver other than the parent, preschool or daycare providers often identify children as having challenging behaviors or social-emotional difficulties. In particular,

children served through Head Start, Early Head Start, and Title I undergo screenings, including mental health screenings. The screenings allow for children with social-emotional and behavioral difficulties to be identified and referred for services.

Available Supports

Once children are identified as having social-emotional impairments, they are referred for services. Children can access several different types of support. In addition to pursuing behavioral therapy services via private insurance or Medicaid funding, Powell et al. (2003) discussed two primary methods available for children to receive services: the Community Mental Health Services Block Grant Program and the federally mandated IDEA Part C services. Powell et al. (2003) described the programs as follows.

Community mental health services. The Community Mental Health Services Block provides community mental health services to children from birth to age 18 who have serious emotional disturbances (Substance Abuse and Mental Health Services Administration, 2014). The Public Health Service Act authorizes the Community Mental Health Services Block Program (Substance Abuse and Mental Health Services Administration, 2014). The Substance Abuse and Mental Health Services Administration (SAMHSA) is responsible for the distribution of grant funds, and the use of the funds is granted to the recipients of the funds (SAMHSA, 2014). Grantees must satisfy a series of performance requirements in order for the grant to be distributed (SAMHSA, 2014).

Children who are diagnosed with a serious emotional disturbance as defined by any Diagnostic and Statistical Manual (DSM) diagnosis are eligible for community mental health services (Powell et al, 2003). However, the parameters for serious emotional disturbance often

leave young children birth to age six without support, especially given that not all children with challenging behaviors will be diagnosed under DSM criteria (Powell et al., 2003).

Individuals with Disabilities Education Act Part C. Another way Powell et al. (2003) suggest children with social-emotional impairments can access support is through the federal and state funded IDEA Part C program. Part C provides free services to children who are at-risk for having, or who have been identified as having, a physical or developmental delay. Each state has its own criteria for determining eligibility for services. It is the job of Part C programs to identify, locate, and evaluate children who may be eligible to receive services under IDEA Part C.

Individuals with Disabilities Education Act Part C and Associated Services

IDEA Part C is one of the most accessible service-delivery programs for young children with disabilities, including challenging behaviors. According to the 2014 annual report, 329,859 (2.8% of the resident population) infants and toddlers were served under IDEA Part C in the United States and the District of Columbia during 2012 (United States Department of Education 2014). In 2012, the Florida Part C program, Early Steps, served 12,036 children (United States Department of Education 2014). The general guidelines for IDEA Part C and for Florida Early Steps (the Part C program in Florida) are described below.

General guidelines and services. IDEA Part C ensures children with disabilities receive a free appropriate public education (FAPE; United States Department of Education, 2010). At the infant and toddler level, FAPE ensures appropriate prevention and intervention services are delivered to families and children aged 0-36 months who have, or are at-risk for having, a developmental delay (United States Department of Education, 2014).

The screening process for identifying children eligible for services is determined by each state, but the United States Department of Education (2014) defines infants and toddlers with disabilities broadly as those who “are experiencing developmental delays, as measured by appropriate diagnostic instruments and procedures, in one or more of the following five areas: cognitive development, physical development, communication development, social or emotional development, or adaptive development; or have a diagnosed physical or mental condition that has a high probability of resulting in developmental delay.”

In addition, children served under IDEA Part C are entitled to receive services in the natural environment (United States Department of Education, 2014). The natural environment can be defined as the home or another setting where the child would typically receive services if a disability were not present (United States Department of Education, 2014).

Each family served under Part C receives an Individual Family Service Plan (IFSP), which includes a description of the areas of concern for the child, services the family and child will receive, and the goals for the child (United States Department of Education, 2014). A central component of IDEA Part C is the family-centered approach, as highlighted by the service-delivery in a natural environment and the IFSP.

Florida Early Steps. In Florida, the federally and state funded program is known as Early Steps. Children can be identified for services in Florida under six domains of developmental delay: physical, cognitive, gross and fine motor, communication, social-emotional, and adaptive development (Children’s Medical Services, 2012). Interventionists provide these services in the natural environment. While few children are referred for behavioral problems alone, many are referred for language and communication delays (Children’s Medical Services, 2012). The literature suggests language and communication delays often co-occur with

behavior problems; thus, these behavior concerns must be addressed in addition to the primary referral concern. In particular, Kaiser, Hancock, Cai, Foster, and Hester (2000) surveyed a sample of 259 three-year-old children and their caregivers using the Preschool Language Scale—3 (PLS), the Peabody Picture Vocabulary Test, the Social Skills Rating System, and the Child Behavior Checklist for Children Ages 2 to 3 to identify whether a relationship existed between preschool-aged children’s challenging behaviors and language delays. Kaiser et al. found that young children with challenging behaviors were more likely to also have language delays when compared to their peers without challenging behaviors. Similarly, when Ross and Weinberg (2006) surveyed 109 preschool-aged children using the PLS, the Behavior Rating Scale, the Bayley Scales of Infant Development—II, and the Vineland Adaptive Behavior Scale, they found overall language deficits were significantly more likely to co-occur with challenging behaviors. Finally, Long, Gurka, and Blackman (2008) examined the results of the 2003 National Survey of Children’s Health to find that more than 50% of parents who noted language delays in their children also noted the presence of challenging behaviors. While challenging behaviors may not be the primary referral concern for interventionists at Early Steps, they are likely to co-occur with language, thus, presenting additional considerations for intervention.

Two types of interventionists can provide services through Early Steps: licensed and non-licensed (Children’s Medical Services, 2012). Licensed interventionists are known as Early Interventionists (EI) and non-licensed interventionists are known as Infant and Toddler Developmental Specialists (ITDS; Children’s Medical Services, 2012). EIs hold at least a graduate degree and licensure in one of 20 areas (Children’s Medical Services Provider Handbook: Licensed Non-Physician Healthcare Professionals, 2013). EIs must have at least one year of post-degree experience with children birth to age 60 months that have special needs or

developmental delays in addition to a Medicaid number in order to work with children who are receiving services with Medicaid (Children's Medical Services Provider Handbook: Licensed Non-Physician Healthcare Professionals, 2013). If an EI does not have one year of experience, then they must undergo a mentorship with an approved Children's Medical Services or Early Steps provider who is in the same discipline (Children's Medical Services Provider Handbook: Licensed Non-Physician Healthcare Professionals, 2013). Finally, EIs must complete the Early Steps orientation modules (Children's Medical Services Provider Handbook: Licensed Non-Physician Healthcare Professionals, 2013).

ITDSs must have one of the following requirements to be employed by Early Steps: an approved in-field Bachelor's degree (early childhood education, early childhood/special education, child and family development, family life specialist, communication sciences, psychology, or social work) with one year of professional experience with young children, 18 credit hours in one of the approved fields of study with at least one year of professional experience working with young children, or five years of professional experience working with young children if an in-field degree has not been obtained (Children's Medical Services Provider Handbook: Non-Licensed Healthcare Professionals, 2013). In addition, ITDSs may be a Board Certified Behavior Analyst, Board Certified Assistant Behavior Analyst, a hearing specialist (as defined as having a Bachelor's degree in a related field), or a vision specialist (as defined as having a Bachelor's degree in a related field; Children's Medical Services Provider Handbook: Non-Licensed Healthcare Professionals, 2013). Finally, ITDSs must undergo online module training before they are enrolled as providers (Children's Medical Services, 2012). Training modules include: infant toddler development, teaming and systems in early intervention, observation and assessment, curriculum for infants and toddlers with special needs, partnerships

and alliances with families and the community, and intervention with children with medically complex conditions and/or intensive special needs (Children's Medical Services, 2012).

Limitations to the Individuals with Disabilities Education Act Part C

While children are eligible to receive services under IDEA Part C, the extent of the quality of service-delivery is unknown. The structure of IDEA Part C does not foster continuity in service-deliver across states, thus, there are several limitations to the organizational structure IDEA Part C. Research examining these potential organizational challenges to IDEA Part C is limited. Thus far, researchers have examined nationwide policies, professional development opportunities, and the use of EBPs for young children with Autism Spectrum Disorder (ASD).

Inconsistent policies. One limitation to IDEA Part C services as a whole is the inconsistent policies across states (Stahmer & Mandell, 2007). Stahmer and Mandell (2007) used a semi-structured interview to survey individual IDEA Part C representatives from 46 states to find the eligibility requirements for children with ASD and the services available for such children under state services. Categorical and continuous variables were measured using chi-squared analyses and t-tests, respectively. Results indicated variability in each state's policies and procedures. In particular, few states had clear diagnostic or treatment guidelines for infants and toddlers with ASD. Further, little or no training was provided in the area of ASD, and few states required a clinician experienced with ASD to make diagnoses. The results of this study cannot be generalized to policies for other diagnoses, such as behavior disorders. Further, the authors reported they did not validate the survey tool used in the study; thus, the reliability of the information is not high. Despite the limitations, this study provides preliminary evidence to suggest there are gaps in policy and procedure under IDEA Part C.

Professional development. Another limitation to IDEA Part C in general is the minimal amount of professional development offered to providers (Bruder, Mogro-Wilson, Stayton, & Dietrich, 2009). Bruder et al. (2009) surveyed 51 Part C coordinators via telephone. The surveys ranged from 25-75 minutes in length and included sections related to professional training and the state system. Each item on the survey was coded individually. Coordinators' answers were compared to a pre-identified definition of training, and 20 (39%) states met the criteria. Thus, while many states were providing professional development training that met all the requirements researched by Bruder et al. (2009), most were not providing complete professional development services. Professional development is integral to effective and empirically supported service-delivery. However, Bruder et al. (2009) did not examine the extent to which service providers extend the knowledge they gain from professional development to their individual practice.

Salisbury, Cambray-Engstrom, and Woods (2012) observed six IDEA Part C providers' report and use of coaching strategies and family-centered approaches during home visits following extensive professional development training. All providers observed had a Master's degree or higher and all had undergone a two-year professional development training (consisting of six 2-day sessions) focused on the implementation of family-centered services prior to data collection. Researchers watched 90 videotapes of home visits and used the Fidelity of Implementation Checklist and the Routine and Instructional Strategy Coding Protocol to evaluate the implementation of certain steps involved in a home visit and the implementation of collaborative consultation, respectively. Data were analyzed using descriptive and correlational statistics. Results indicated providers used coaching strategies and family-centered practice to a greater extent than was reported in previous research, which indicates the efficacy of the training

program implemented prior to data collection. In addition, most providers implemented strategies with an average of 77% fidelity. Interestingly, the providers tended to underreport actual use of coaching strategies. The limitations to this study include lack of generalizability to other Part C programs (particularly those with less professional development opportunities) or to other EBPs targeted at a child's specific needs (e.g., challenging behaviors). In addition, the information gathered may be biased to a certain extent due to provider knowledge of evaluation. Thus, the reported findings may be exaggerated. Although not noted by the authors, the results seem to indicate the efficacy of professional development in increasing best practices for a family-centered approach.

When professional development is delivered, it is not always effective. Campbell and Sawyer (2009) conducted a similar study to Salisbury et al. (2012), wherein they examined the effect of professional development on interventionists' attitudes about and use of participation-based practices. There were 96 multi-disciplinary early intervention providers who participated and over half held a graduate degree. The professional development included two 3-hour professional development sessions with one of two professional development leaders. In addition, self-study activities were included as part of the training and participants were required to submit two videotapes of home visits as part of the activities. Videotapes were used to evaluate interventionists' use of participation-based practices. The researchers used four scales to evaluate the videotapes: Natural Environments Rating Scale, Early Interventionist Q-Sort, self-guided reflective analysis, and follow-up interviews. The qualitative results were used to gain a better understanding of the quantitative findings. Results indicated 34.4% and 57.3% of the participants used participation-based practices in the first and second videotape, respectively. The participants were then categorized as providing traditional services at both time points,

providing participation-based services at both time points, or providing traditional services at the first time point and participation-based services at the second time point. Chi-square analyses revealed no significant difference between the groups based on classification. Additionally, chi-square tests revealed no significant differences between the traditional and participation-based providers based on the interventionists' discipline, ethnicity, educational level, or experience as a practitioner in the field or as an interventionist. Summative methods, criterion methods, and test-retest analyses showed personal beliefs and values did account for differences between the participation-based and traditional service groups. Thus, interventionists who held beliefs congruent with best practice were most likely to benefit from the professional development. A limitation to this study is that no baseline data were collected. In addition, the videotapes may not represent the interventionists' actual practice. Finally, more than one person conducted the professional development trainings at different times, thus, different training groups may have been influenced more or less depending on the day and on the trainer. This study shed light onto different groups for whom professional development activities can be most effective.

Fleming, Sawyer, and Campbell (2011) followed up the study by Campbell and Sawyer (2009) by investigating interventionists' perspectives regarding the implementation of actual versus optimal practice following professional development training. The participants were randomly selected and included 35% of the participants from the original study who were classified as using participation-based services and 29% of the participants from the original study who were classified as using traditional service-delivery methods. Semi-structured telephone interviews were conducted to gain information about interventionists' perspectives and practice. Two people independently reviewed participant responses for emerging ideas, which were then coded by one of the reviewers and a new reviewer. Two reviewers used a priori codes

to evaluate whether responses to two questions were consistent with the ideas taught in the professional development course that was part of the original study. Two of the reviewers then developed the main ideas into four broad themes: incomplete understanding of participation-based services; provider role of advancing children's development, not participation in activities or routines; caregiver role as involved, not teacher of the child; and ability/inability of optimal service provision attributed to caregivers. The themes were applicable to all providers, regardless of their type of service-delivery. The themes that emerged showed interventionists did not fully understand participation-based services and did not always have the ability to deliver ideal services. Inability to deliver ideal services was often attributed to families. Furthermore, providers could not explain the purpose of participation-based services. Limitations to this study include the sample was a small subset of the sample from the original study, the videotapes from the original study may not represent typical practice, and participation was voluntary. Thus, findings are not generalizable.

Similar to Campbell and Sawyer (2009), Campbell and Halbert (2002) used an open-ended survey to examine 270 Part C providers' changes in practice after attending professional development training and providers' opinions of family-centered practice. Finally, authors asked providers to share three wishes they had for early intervention practices to elicit ideas about practices providers believe might not be possible under the current policy. The data related to the final question were analyzed using thematic analysis. Results indicated six themes identified by providers, including a need for improvement in the work environment, provision of more services, an increase in opportunities for teaming, a change in opportunities for training, a return to center-based service delivery, and an increase in parent participation in service delivery. Responses provided by interventionists, including the return to center-based (rather than home-

based) care and increased parent participation, reflect a discrepancy in best practices for family-centered care and practitioner perspective. In particular, providers were less interested in best practice service delivery and more interested in the logistical challenges associated with serving clients. The data suggested barriers to effective implementation of best practice. A limitation to this study, however, was the authors did not explicitly ask for information about best practices. The generality of the question was not conducive to gleaning information about perspectives regarding use of best practices for early intervention.

Use of evidence-based practice. Limited research has focused on the extent to which Part C providers use EBPs. Stahmer (2006) identified the use of effective practices by examining three elements: 80 Part B and Part C providers across two counties for children with ASD, Part B and C program differences in practices by child's age, and elements of the Part B and C programs that were based on evidence. The author used structured telephone interviews to obtain information about practices for children with ASD used by early interventionists. The interview contained 41 questions and took approximately 25 minutes to administer. The author gauged four elements through the interview: provider background and experience, general program information, parent involvement, and curriculum and goal planning. The data were analyzed using descriptive statistics, a chi-square analysis (to obtain differences between counties and differences in services depending on age), and a bivariate correlational analysis (to obtain differences between school districts and dependent variables). Results indicated that while many interventionists reported using elements of evidence-based practice, the quality of such practices was inconsistent. Additionally, intervention implementation and provider experience and background with ASD was variable. Limitations to this study include significant lack of generalizability to other children served under IDEA Part C. In addition, the great number of

questions, but relatively little amount of time spent interviewing may have resulted in gaps in the data. A more in-depth interview with the interventionists could answer some of the research questions/aims in greater detail.

Stahmer, Collings, and Palinkas (2005) used focus groups with Part C early interventionists to identify the extent to which they understood evidence-based intervention strategies for children with ASD. In addition, the authors identified methods used by the interventionists and how the methods were adapted for individual children. Finally, the authors analyzed whether the methods used by the interventionists were common to the methods used in evidence-based programs. Four focus groups were conducted with 22 service providers from two different counties in California. Semi-structured interviews and vignettes were used to identify interventionists' knowledge and use of EBPs. In addition, interventionists were asked to identify whether interventions were specific to autism and whether the interventions were useful, valid, and feasible. Finally, participants noted whether they would change the intervention in the vignette. Data were analyzed using grounded theory first, and then the constant comparative method. Results indicated early interventionists had limited understanding of EBPs, and the interventions used were a mix of both evidence-based and non-evidence-based practices. Further, interventionists often reported mixing elements of interventions to fit with the interventionists' preferred teaching style and to individualize service-delivery. Despite the lack of evidence for the use of EBPs, many interventionists used elements common to successful programs described in the literature. With regard to behavior modification, many interventionists identified the use of functional analyses and techniques such as teaching alternative behaviors. However, the results of this study cannot be generalized to other locale or to other disorders. Further, the focus group discussion and self-report may have influenced the reliability of the data to an unknown extent.

For example, the extent to which practices reported and practices implemented are aligned is unknown. This study provides preliminary insight into early interventionists' practices with regard to children with ASD.

Limitations to IDEA Part C: Florida Early Steps

Discussion with Early Steps administrators revealed many concerns with regard to the program. Thus, the foundation for this research project was built on the limitations noted by administration. The biggest limitation to Early Steps is that, to date, no research has been conducted with regard to the interventionists' service-delivery practices. Thus, the limitations presented below are those perceived by administrators as having an impact on services provided by the interventionists.

Differences in training backgrounds of interventionists. The interventionists employed by Early Steps can range from having graduate education and licensure to having no in-field child development degree with five years of experience working with young children (Children's Medical Services Provider Handbook: Non-Licensed Healthcare Professionals, 2013). This difference in training background was hypothesized to create discrepancies in the quality of services delivered, as licensed professionals will most likely have more experience with identifying, developing, and implementing interventions appropriate to the referral concern.

Limited professional development. There are currently no requirements in place for maintaining the ITDS certification over time or maintaining one's status as a licensed Early Steps provider. While professionals holding a license must complete continuing education, no professional developmental specific to birth to three or to the Early Steps model of service delivery is required. Thus, it was hypothesized that little or varied professional development is provided across the state. This lack of professional development could potentially create

problems if the EIs and ITDSs do not understand or use appropriate interventions in their practice, as ongoing, specialized training for the birth to three population could help facilitate better service-delivery.

Limited progress monitoring. After an IFSP is created and interventions are implemented, progress-monitoring data are only required to be collected once every three months (Children’s Medical Services Early Steps Policy Handbook and Operations Guide, 2012). This sporadic collection of progress monitoring data could hinder the progress of the child, as the interventionist does not look at the efficacy of the intervention until progress-monitoring data are collected after 12 weeks. Thus, an ineffective intervention could be in place for at least a quarter of the year, which is a significant period of time for infants and toddlers.

Little professional monitoring of service-delivery. The majority of services delivered by EIs and ITDSs in Early Steps are done via contracted therapy services with community agencies. Many local Early Steps regions serve thousands of children via a few hundred community providers (Children’s Medical Services, 2012). Thus, each Early Steps program has limited professional oversight to track whether interventions are evidence-based or implemented with fidelity (Children’s Medical Services, 2012). This lack of professional oversight could be problematic if services are not empirically supported or implemented with integrity. Therefore, the children receiving services may not meet their goal or receive the FAPE outlined by IDEA Part C. This oversight could potentially be worsened by the lack of professional development in Early Steps.

Conclusion and Purpose

Challenging behaviors are highly prevalent among the early childhood population and are associated with poor academic, social, and life outcomes (Fox & Smith, 2007). Treatment for

young children with challenging behaviors is most supported by the Positive Behavior Support and Pyramid Model framework, which may include elements such as assessment-based interventions, teaching strategies, antecedent-based interventions, multi-component interventions, and a family-centered approach (Dunlap et al., 2006).

Young children with challenging behaviors may be referred for services regarding such behaviors via parent self-referral, physicians, or out-of-home caregivers. Children may then receive free services through IDEA Part C, which is known as Early Steps in Florida. Unfortunately, little is known about Part C and Early Steps interventionists' practices. Extant literature suggests variability in Part C policy. In addition, Part C providers receive little professional development opportunities, thus creating a gap between empirically supported interventions and actual practice for young children with developmental delays. Currently, no research has been conducted with regard to the evidence-base behind the interventions implemented by providers at Early Steps.

Therefore, the purpose of this study was to gain a preliminary understanding of Part C interventionists' knowledge and understanding of EBPs for young children with challenging behaviors, and to identify the process of intervention identification and implementation, while also examining the challenges associated with service-delivery and how such challenges could be alleviated by Early Steps.

The findings from this study necessitated a larger scale evaluation of the practices implemented by interventionists across the state of Florida. Further, the findings from this study informed professional development and training opportunities for interventionists at Early Steps, which are currently non-existent. Additionally, a thorough understanding of how typical interventionists might identify and implement interventions was gained through this study.

Finally, findings from this study contributed uniquely to the literature in that no one has studied knowledge and use of EBPs for young children with challenging behaviors among Part C providers.

Chapter Three:

Method

This chapter consists of four sections that present descriptions of the qualitative research design, participants from Early Steps, data collection and analysis procedures, and ethical consideration related to data collection.

Research Design

Because few researchers have examined the interventionists employed under IDEA Part C in general, and no researchers have examined Part C providers' knowledge and use of EBPs for young children with challenging behaviors in particular, a qualitative research interview study was designed. A qualitative design illuminated interventionists' knowledge, use, and process of identifying EBPs for young children with challenging behaviors. Although survey methods could have been used, interviews were chosen due to the flexibility they provided in understanding providers' knowledge and process of identifying EBPs. In addition, the interview protocol underwent expert review and pilot sessions to increase the reliability and validity of the measure.

Participants

This researcher used a convenience sample. The sample consisted of interventionists from Bay Area Early Steps in southwest Florida who had children with challenging behaviors on their caseload. There are approximately 260 interventionists in the Bay Area Early Steps program. It is unknown how many of these interventionists have children with challenging behaviors on their caseload because most children do not have challenging behaviors as their

primary referral concern. Three Early Interventionists (EI; these providers are licensed clinicians) and seven Infant and Toddler Developmental Specialists (ITDS; these providers traditionally have a Bachelor's degree in a field related to child development) were included in the study. The distribution was chosen because ITDSs are the most prevalent interventionists at Bay Area Early Steps.

To recruit participants, this researcher created and distributed a flyer to ITDSs and EIs through e-mail (see Appendix F). The flyer briefly explained the study and its potential benefits. This researcher also attended some monthly meetings for community providers associated with Early Steps to explain the purpose and potential outcomes of the study to the ITDS and EI interventionists affiliated with the provider. At this time, participants were notified of the potential to earn an incentive if they participated. Ten participants responded to recruitment techniques.

Participation in the study was incentivized with gift cards worth 10 dollars each. Each participant earned the incentive for participating in the interview.

Previous researchers have interviewed between 22 and 80 interventionists (Stahmer, 2006; Stahmer et al., 2005). This researcher chose to interview a smaller sample of 10 interventionists for two reasons. First, no previous researchers had identified the extent to which Part C interventionists used EBPs for young children with challenging behaviors. Second, no previous researchers had examined the extent to which providers at Early Steps in particular had knowledge and use of EBPs. Further, a smaller sample size was chosen in order to gain a more detailed understanding of knowledge and use of EBPs, intervention identification, and needs of the interventionists. Finally, recruitment ceased when data were saturated (i.e., participants were reporting little to no new information; Guest, Bunce, & Johnson, 2006).

The 10 participants in the sample were 80% White and 80% female. Training background and years of experience were highly variable among interventionists. Most interventionists served children from a range of socioeconomic backgrounds. A breakdown of participant demographics can be viewed in Table 1.

Table 1

Demographic Information

<u>Pseudonym</u>	<u>Race/Ethnicity</u>	<u>License</u>	<u>Training Background</u>	<u>Years of Experience</u>	<u>Years at Early Steps</u>
Caitlin	W	EI	Developmental/Clinical Psychology (Doctoral)	27	5
Matthew	W	EI	School Psychology (Doctoral)	9	9
Melissa	W	EI	Special Education (Bachelor's)	15	9
Courtney	W	ITDS	Social Work (Master's) Psychology (Bachelor's)	7	3
Gina	H	ITDS	Education (Master's) Special Education (Bachelor's)	12	7
Jenn	B	ITDS	Communication Sciences and Disorders (Bachelor's)	10-15	2
Judy	W	ITDS	Human Development (Bachelor's)	17	17
Lindsey	W	ITDS	Curriculum and Instruction for Special Needs (Master's) Specialization: Early Intervention	3	<1
Meghan	W	ITDS	Child Development and Family Studies (Bachelor's)	8	2
Rhett	W	ITDS	Public Health with Behavioral Concentration (Master's)	10	<1

Data Collection Procedures

Data were collected using a semi-structured interview method similar to that of Stahmer et al. (2005). Unlike Stahmer et al. (2005), this researcher was concerned that each provider's perspective would not be adequately included if a focus group was conducted. In particular, it was of concern that some interventionists' input would overshadow the input of other, more reserved interventionists. Further, some interventionists may have been unwilling to make a contribution to the focus group if they perceived their practices to be discrepant from practices shared by others in the group. Thus, interviews were conducted with each participant individually. These interviews averaged 60 minutes in length.

The interview protocol was developed based on the framework provided by the PBS model and the Pyramid Model (see Appendix A). Questions and vignettes were developed to elicit responses related to whether the interventionist was using a functional behavioral assessment to inform the intervention, as this is a crucial first step to identification of an evidence-based intervention for young children with challenging behaviors (Dunlap et al., 2006). Initial interview questions were developed based on the information gathered about PBS through the literature review. Additional questions were developed to probe interventionists' process for identifying an intervention based on the referral concern. Further questions were used to gather information about the needs of providers. The vignettes were developed based on typical challenging behaviors seen in the literature and observed through personal experience (see Appendix B). Experts in challenging behaviors reviewed and provided feedback related to the interview questions and vignettes. In addition, an ITDS from Early Steps volunteered to help with interview development and provided feedback related to the preliminary set of interview

questions. The volunteer's input aided in developing an interview protocol that resulted in reliable data. Particularly, the feedback provided insight into the applicability of the questions and vignettes to a typical interventionist.

After the interview protocol was reviewed and revised, the protocol was piloted on a sample of two interventionists. Through the pilot, this researcher solicited feedback with regard to her skills in developing rapport and trust with the interviewees. In addition, feedback was solicited with regard to the quality, depth, and clarity of the interview questions. This feedback served to develop this researcher's interviewing skills and to further modify the interview protocol. Specific feedback from the pilot interviews resulted in the elimination of one vignette. Feedback also resulted in a more thorough description of the semi-structured interview procedures with further participants. Because minor changes were made to the interview protocol, the pilot participants' data were included in the final data analysis.

In addition, this researcher had previous experience with professionally interviewing others through participation in a qualitative research grant and through graduate coursework. This researcher's skills were further developed prior to interviews through a graduate course in consultation and collaboration. To help interventionists feel comfortable sharing information with the interviewer, this researcher spent approximately five to 10 minutes engaging in casual conversation in order to build rapport with participants. The pilot interviews, rapport-building techniques, previous interviewing experiences, and coursework in consultation produced an experienced and credible interviewer.

The interview was conducted at a time and place of the interviewee's choosing. Locations included libraries, observation rooms at the local Early Steps site, and coffee shops. To ensure children remained anonymous, no identifying information (i.e., names, housing locations, etc.)

about any child or case was verbally discussed. The participants were asked to choose the time and locale in order to build a level of comfort with the interviewer prior to the interview. Interviews were recorded and the interviewer collected field notes throughout the interview. To gather a more thorough understanding of service delivery, interventionists were asked to bring to the interview a de-identified plan of care report for a child who exhibited challenging behavior. However, few interventionists remembered to bring the plan of care, which may have been due to a number of factors, including interventionists' level of comfort sharing their plan with an outside researcher. Though it was thought the plan could be used in conjunction with interview data to determine whether EBPs were being utilized, the plans often contained little information to aid in the process of understanding the knowledge and use of EBPs among interventionists.

The interview began with an introductory question aimed to establish rapport with the participant. The proceeding interview questions were targeted towards knowledge and use of EBPs for young children with challenging behaviors (research questions one, three, and four). Following the initial questions, short vignettes of typical cases of children with challenging behaviors were presented to the interventionist. The provider was then asked to walk through his/her typical procedure for delivering services in similar cases. The purpose of the vignettes was to gain further understanding of the process a provider typically goes through before implementing an intervention or delivering services (research question two). The vignettes also minimized the potential for biased responding. In particular, interventionists could not describe EBPs if they did not know or understand them. Thus, the vignettes reduced the probability of respondents' answering in a socially desirable manner.

To ensure the interviews were completed with integrity, five graduate students rated the interviewer's application of the interview protocol following an interview protocol checklist.

Finally, data were collected with regard to the participants' gender, training background, race, socioeconomic status of children served by the interventionist, type of license held, and the number of years the interventionist had served Early Steps. This information was collected in order to better understand the diversity of the sample and to understand potential mechanisms for intervention development and implementation (e.g., training background and years at Early Steps may influence intervention development based on experience). See Table 1 for a breakdown of demographic variables.

Data Analysis

Following each interview, this researcher wrote a journal entry about her experiences during the interview (see Appendix G). Included in the journal were her own reactions to the interview and a summary of important ideas expressed by the interventionist. This researcher transcribed all interviews. Data from the transcripts were analyzed using a rating scale, wherein, interventionists' reported knowledge and use of EBPs were evaluated holistically using a 4-point scale: 0 (no knowledge or use of EBPs), 1 (little knowledge or use of EBPs), 2 (partial knowledge or use of EBPs), or 3 (complete knowledge and use of EBPs). Interventionists' responses to vignettes were scored separately on a 4-point scale that was similar to the holistic scale (see Appendix C). This evaluation method was chosen in order to assign interventionists to preliminary categories with regard to their service-delivery. This evaluation method also provided a reference to the number of interventionists with complete knowledge, partial knowledge, little knowledge, or no knowledge of EBPs. Evidence-based practices for challenging behaviors were considered based on the PBS framework. A rubric was developed to allow the researcher to rate each interventionist on this 4-point scale (see Appendix C). To score a three, interventionists described their intervention identification based on the definition of

EBPs presented previously and based on the guidelines presented by Dunlap et al. (2006). To score a two, interventionists demonstrated partial knowledge or use of evidence-based practice by using some of the guidelines presented by Dunlap et al. (2006). To score a one, interventionists demonstrated little knowledge or use of EBPs by utilizing research-based strategies that were not informed by the guidelines presented by Dunlap et al. (2006). To score a zero, participants demonstrated no knowledge or use of EBPs by implementing no research-based strategies and no guidelines recommended by Dunlap et al. (2006). In addition, an N/A category was applied to the vignette scoring to delineate interventionists who described specific behaviors presented in the vignette as either developmentally appropriate, thus needing no intervention, or so severe the interventionist would need additional help to treat the behavior. Participants were given a score for each vignette, and then the scores were collapsed into one average score for each participant.

The second step in the data analysis was to develop themes. Specifically, interview transcripts were read multiple times to generate common themes across interviews. The themes were then used to identify how often particular ideas occurred throughout the interviews. The major ideas were derived holistically from the interview, rather than question-by-question, as the knowledge and use of EBPs was established throughout the entire interview. The themes generated from the review of the transcripts were used to make a codebook (see Appendix C) and transcripts were subsequently be coded.

To increase the trustworthiness of the data, five peers were asked to review the acceptability of the codes. In addition, those peers were trained to code and score 100% of the data for the knowledge and use of EBPs and for the additional ideas identified through the needs assessment. By having others code and score the data, interobserver agreement was established,

and thus, reliability of the data was increased. Agreement was calculated by dividing the number of agreements by the number of agreements plus disagreements and multiplying by 100. Coding agreement (the reliability of the 17 identified themes and subthemes across transcripts) ranged between 73 and 100%. All disagreements were discussed and final coding agreement was 100% for all transcripts. Scoring agreement (the reliability of the scoring guidelines related to interventionists' general practice and analysis of vignettes across transcripts) ranged between 60 and 100%. All disagreements were discussed and the final scoring agreement was 100% for all transcripts. Finally, the general themes that emerged from the needs assessment were shared with the participants, who were then asked to identify whether the themes appropriately captured information shared through the interview. Participants had the option to review the information via e-mail for convenience.

Ethical Considerations

A central ethical consideration for this study was the involvement of the Bay Area Early Steps assistant clinical director. Because the assistant clinical director professionally evaluates the providers comprising the sample for this study, there were concerns for the reliability and validity of the information gained through data collection. Thus, a few steps were taken in order to protect the identities of the providers and ensure reliable data were collected.

First, providers were fully informed of the purpose of this study. Interventionists were told they would be interviewed about their general practice, including the process of intervention implementation, difficulties with implementation, and interventionists' ideas for how Early Steps could help improve service delivery. Interventionists were also informed the responses they provided in relation to their practices would be kept confidential with the exception of an indication of harm to self or others. If interventionists shared information about people in the

program (e.g., assistant clinical director), the name was not included in the transcription. In addition, interventionists were given a detailed description of the data analysis process and were reassured the assistant clinical director would not be present during interviews and would not have access to interview recordings. They were informed that the assistant clinical director would not evaluate the data for job performance, but for the professional development of Early Steps as a whole; thus, interventionists' jobs were in no way jeopardized. Providers were then asked to give informed consent (see Appendix E).

Second, confidentiality was maintained through the use of pseudonyms. Pseudonyms were used throughout the recordings, transcripts, and notes. In addition, participants were informed the interviewer was a researcher in a graduate program, and thus, not professionally affiliated with Early Steps.

Chapter Four:

Results

This chapter presents the results of the 10 interviews conducted with Early Steps interventionists. Data were analyzed through thematic analysis and rating scales in order to answer the five research questions. In particular, the rating scales answered the first two research questions, while the thematic analysis answered research questions one, three, four, and five. The rating scales included two 4-point scales, wherein interventionists were rated according to their knowledge and use of EBPs for their own service-delivery and for four vignettes (see Appendix C). Ratings were given based on the interventionists' utilization of best practice for treatment of young children with challenging behaviors in accordance with the Pyramid Model (Dunlap, 2006; Fox & Smith, 2007). Themes were generated based on the ideas expressed repeatedly by interventionists in response to interview questions and vignettes. Interpretation of themes and ratings according to how they answer each research question is presented in this chapter.

Table 2 represents each theme and subtheme described by interventionists in response to interview questions and vignettes.

Table 3 represents the EBPs utilized by each interventionist for a case they were treating at the time of the interview. Interventionists were scored on a 4-point to three scale. The scores ranged from zero to three. Lower scores indicated limited knowledge or use of EBPs, while higher scores indicated complete knowledge and use of EBPs for young children with challenging behaviors.

Table 2

Summary of Themes

<u>Theme Name</u>	<u>Description of Theme</u>	<u>Participants Discussing Theme</u>
1. Insufficient Training	Interventionists describe not having the training needed to meet the needs of all children they serve. Some interventionists note that prior to specific training such as HOT DOCS (Helping Our Toddlers, Developing Our Children's Skills) or PCIT (Parent Child Interaction Therapy), they did not have the appropriate skills to serve children with challenging behaviors. Other interventionists note that other providers do not have the training needed to effectively treat challenging behaviors.	Caitlin Meghan Rhett Melissa
a. Shallow Toolbox	Interventionists note they do not have enough strategies and need more strategies to effectively work with their clients. This can include a shallow tool box in terms of intervention strategies or in terms of strategies to facilitate parent/caregiver buy-in.	Courtney Lindsey
2. ABA Confusion	Interventionists indicate ABA strategies should be used only for children who have neurological or cognitive concerns or for specific cases of severe behavior such as biting or self-injurious behavior. Some interventionists conceptualize behaviorism only as a way to address attention-seeking behavior through planned ignoring (i.e., interventionists do not understand there is more to behaviorism than the function of attention). Alternatively, some interventionists indicate stark opposition to ABA (such as the validity of an FBA for young children), while asking for more training in strategies based in ABA.	Caitlin Lindsey Jenn Judy Meghan
3. Attention Only	Interventionists conceptualize most or all behaviors occurring as a result of an attention-seeking function. Some interventionists indicate a child's behaviors are related to neurological or cognitive concerns if a child does not engage in behaviors to access attention or if strategies targeted towards attention-seeking behaviors (e.g., planned ignoring) are unsuccessful. Some interventionists also conceptualize specific behaviors such as tantrums or self-injury as only attention seeking.	Courtney Caitlin Jenn Judy Meghan Melissa
4. Straight to Strategies	Interventionists jump from problem identification (i.e., a challenging behavior is present) to implementation of specific strategies like planned ignoring and differential reinforcement of alternative behaviors. Some interventionists ask some questions about the context of the behavior (e.g., antecedents to the behavior) but do not systematically use this information to inform the intervention strategies. This theme is particularly present throughout analysis of vignettes.	Courtney Lindsey Jenn Judy Meghan Gina Melissa
5. Self-Guided Research	Interventionists note they stay up-to-date on practices by identifying new strategies through their own Internet research or literary research (i.e., books).	Courtney Lindsey Judy Gina
6. Problematic Progress Monitoring	Interventionists do not monitor children and families' response to intervention through objective measures and analyses. Progress monitoring tools include observation during sessions and parent report of reductions of challenging behaviors.	Courtney Caitlin Lindsey Jenn Judy Meghan Gina Rhett Melissa

Table 2 (Continued)

7. Systems-Level Issues	Interventionists describe issues with the implementation of the Early Steps model. Some interventionists note that the model, especially with regard to only applying one intervention, is taken too literally, which can become problematic. Particular issues include concerns with screeners utilized by Early Steps, difficulties with the “generalist” approach applied by Early Steps, and/or problems with the seeming lack of a team approach to children’s concerns (for further description, see the codebook in Appendix C). Note: if a participant mentions any or all of these concerns with regard to the Early Steps model, a code of Systems-Level Issues would be warranted.	Courtney Caitlin Judy Meghan Rhett
8. IFSP Limitations	Interventionists note the IFSP includes little, if any, information about behavioral problems present, leaving the interventionist to learn about the behavior when they first visit the home or daycare. The scarce amount of information provided to the interventionist on the IFSP makes it difficult for the interventionist to prepare interventions.	Courtney Caitlin Lindsey Jenn Judy Meghan Gina Rhett Melissa
8a. IFSP Constraints	Because behaviors often are a major contributor to a child’s delays, particularly for language acquisition, interventionists must depart from the goals on the IFSP to first address behaviors. However, some interventionists feel constrained in their ability to address behaviors and also meet other goals related to the primary referral concern because behavioral issues are not noted on the IFSP.	Caitlin Jenn Rhett
9. Parental/Caregiver Buy-In	Parents or caregivers do not or are not anticipated to “buy-in” to behavior interventions. This is sometimes because they were not identified as an area of concern during evaluation. Other times, parents or caregivers deny a behavior problem exists or purport they have tried all the strategies suggested by the interventionist. Little buy-in leads the caregiver to be resistant or to refuse to implement behavioral strategies, which in turn leads to issues with consistency and follow through with the recommendations provided by the ITDS or EI. Some interventionists note that they have no way of knowing whether the intervention is implemented consistently. This could also include one parent being prepared to implement recommendations, while the other parent is not.	Courtney Matthew Caitlin Lindsey Jenn Judy Gina Rhett Melissa
10. Advocacy	Interventionists indicate their ability to obtain behavior consults is a result of their own self-advocacy and trustworthiness in their genuine need for help from a consult. Some interventionists also indicate it is the job of other providers to advocate for themselves to obtain a behavior consult.	Jenn Meghan Melissa
11. IFSP Identification	Interventionists suggest behaviors be identified more explicitly on the IFSP so the providers might have an indication of the additional services to be provided. Interventionists also suggest broadening the goals listed on the IFSP in order to provide a wider range of services.	Courtney Caitlin Judy Gina Rhett
12. Clear Communication	Interventionists suggest having greater clarity in the communication that circulates through Early Steps. This can include, but is not limited to, clearer communication about policy changes and additional services available to families.	Caitlin Meghan Gina
13. Consult Accessibility	Interventionists suggest that behavior consults should be easier to acquire. This includes access to behavior specialists and greater communication to service providers about the supports that are available in terms of case consultation. Some interventionists also suggest having regular case consultation with specialists or regular group consultation sessions in order to increase accountability.	Courtney Caitlin Lindsey Jenn Judy Meghan Melissa

Table 2 (Continued)

14. Increased Training	Interventionists suggest more training in the area of behavior for both service providers and families. This theme may be applied to requests in addition to behavior specifically (e.g., Autism).	Courtney Caitlin Lindsey Jenn Judy Meghan Gina Rhett Melissa
15. Supplementary Resources	Interventionists request additional resources in order to improve their service delivery. This can include, but is not limited to, handouts for parents, pamphlets, and information about research-based strategies. Interventionists also suggest having more community resources available for families.	Courtney Lindsey Jenn Judy

Note. The first six themes characterize general ideas and phenomena expressed, while the final nine themes represent common barriers to service-delivery (themes seven through 10) and suggestions for improvement to Early Steps in response to the needs assessment that was conducted during the interview (themes 11-15).

Table 3

Summary of Scores and EBPs

<u>Pseudonym</u>	<u>Evidence-Based Strategies Utilized</u>	<u>General Score</u>	<u>Averaged Vignette Score</u>
Caitlin (EI)	<ul style="list-style-type: none"> Trauma-Informed Care 	1	2
Matthew (EI)	<ul style="list-style-type: none"> Antecedent control Capitalizing on Preferences Pairing/Token economy/ Planned ignoring + DRA Successive approximations Temporal conditioning 	3	3
Melissa (EI)	<ul style="list-style-type: none"> Parent coaching Planned ignoring + DRA 	2	1
Courtney (ITDS)	<ul style="list-style-type: none"> Planned ignoring + DRA Positive Commands Redirection 	2	1
Gina (ITDS)	<ul style="list-style-type: none"> Antecedent control Choice-making DRA Positive commands 	2	1
Jenn (ITDS)	<ul style="list-style-type: none"> Least-to-most prompting Planned ignoring + DRA Positive commands 	1	1.25
Judy (ITDS)	<ul style="list-style-type: none"> Communicating Partners Program 	1	1.5
Lindsey (ITDS)	<ul style="list-style-type: none"> Choice-making Chunking Negative Punishment Planned ignoring + DRA 	2	2.3

Table 3 (Continued)

Meghan (ITDS)	<ul style="list-style-type: none"> Planned ignoring + DRA Positive commands 	3	1
Rhett (ITDS)	<ul style="list-style-type: none"> Capitalizing on Preferences Forward chaining Planned ignoring + DRA 	3	3

Note. The general score represents the analysis of interventionists' practices with regard to the child for whom they discussed their current treatment strategies. The average vignette score represents the mean score earned across the four vignettes for each interventionist.

A score of 0 indicates no knowledge or use of EBPs.

A score of 1 indicates little knowledge or use of EBPs.

A score of 2 indicates partial knowledge or use of EBPs.

A score of 3 indicates complete knowledge and use of EBPs.

*For more detailed information about the scoring criteria, see Appendix C.

The data obtained from providers were used to answer each of the research questions.

Themes 1-3 and the rating scales mapped on to Research Question 1. Results from the rating scales were used to answer Research Question 2. Themes 4-5 mapped on to Research Question 3, and Theme 6 mapped on to Research Question 4. All of the remaining themes (Themes 7-15) mapped on to Research Question 5.

Question 1: What is Early Intervention Providers' Knowledge of EBPs for Young Children with Challenging Behaviors?

All providers interviewed utilized evidence-based strategies in their practice. When asked, most interventionists noted they learned their strategies through a combination of education, prior training, clinical experience, and "common sense." However, interventionists demonstrated awareness that their training background did not fully prepare them to treat young children with challenging behaviors. Therefore, even though the strategies employed by the interventionists were supported by research, they were not chosen systematically through the use of an FBA. This "Insufficient Training" and "Shallow Toolbox" described by the interventionists were evident throughout the interviews, as themes of confusion about behaviorism and attention-seeking functions of behavior arose while interventionists spoke about their cases and analyzed vignettes. Additionally, the ratings of the interventionists' knowledge and use of EBPs reflected

their use of EBPs was unsystematic and uninformed by the function of the child’s behavior. This is particularly important because an intervention that is not functionally equivalent to the behavior will ultimately be less successful (Newcomer & Lewis, 2004).

Theme 1: Insufficient training. Interventionists described that they and/or their peers did not have the training needed to effectively treat challenging behaviors. Caitlin, a licensed EI, described the practices in which she sees some non-licensed ITDSs engage:

I think the ITDSs don’t have training in that [treatment of challenging behaviors] at all. I think they rely on how they were raised. They give, kind of a neighbor advice kind of thing...I think we relegate behavior to this specialty instead of—so, you have to have a behavior specialist for that.

Similarly, Meghan described how ITDSs at Early Steps have little preparation to take on the spectrum of referral concerns served by Early Steps. She noted in particular that a specialized training background can be beneficial and few ITDSs have such specific training:

That, I think, is just one of the biggest things that’s scary to think about for some people like me that—I don’t have a medical background. I could just say, “Okay, I work in this area. Here, I’ll take that kid,” and have no clue what to do with them and have no clue who to even ask for help, and that is a lot of what ITDSs deal with. Cause at least with a license, you’ve had formal training. We haven’t. Some of us have for some stuff, but not for a lot of things.

Rhett, a behavior analyst, spoke to the importance of his specialized training for working with young children with challenging behaviors. Like Meghan, he described how he does not have the training to be a competent therapist in other areas, while other therapists do not have the training

to be competent in behavior therapy. Rhett noted the implications of the insufficient training with regard to treating challenging behaviors:

I—it's just hard, and I feel that way cause there's been a handful of cases that I've been a part of—this was really very—it was not the most difficult to come up with a solution, and that's just based on experience. It's not that I have a plethora of experience, but it's just about having, “What's your training and how does that come into play?” And there are plenty that are much better than me in many, many areas with communication training and so forth, but either way, it's just unfortunate when you have somebody going to a house to help you and they don't have an answer. It's unfortunate for the clinician. It's unfortunate for the family. If you're meeting together to help someone and just don't have all those resources. So, from a financial side, it would be interesting to see what the difference would be in having to have all the behavior consults if they're really able to just train an EI or ITDS on how to work on the behavior to start.

Melissa also described how “typical” EIs and ITDSs are not trained to be behavior therapists specifically. Additionally, she stated that EIs and ITDSs are especially not prepared to take on a specialized group of children like the infant and toddler group:

So, but for the typical EI or ITDS, I think that they don't—unless you take advantage of that [training opportunities], then you're not necessarily—I don't think you are prepared for that. I don't think you have the, you know...and even then, depending on what your training is, I think, “Is it gonna fit with the three and under group?” So, that doesn't—I think that that's also—it's a little—it's really being more specific to that age group, too.

Melissa additionally discussed how important training opportunities have been to her service delivery, noting that prior to engaging in such training, she was unprepared to treat cases where behaviors were a concern:

Yes, I mean, I would say since the PCIT training that I took, I've incorporated those more into my just general sessions, anyway. And that's what I was gonna say is a little bit—for me, coming from a social work background even though I had special ed, that was—and it was behavior, but that was from a classroom teacher and also 30 years ago. So, very different to some degree, and that was the piece that I liked about from a psychology standpoint is it was very one, two, three. It was very laid out for you. Doesn't always work that way, but I think it's nice to have—I guess it was very simple skills, and I actually went through the HOT DOCS program at Early Steps too. I did sit through that. So, between all those different things I had had up to that point, I had a lot of behavior kids, and I felt like I didn't have a good way to start. I didn't have a good starting point. And I felt like after doing all that now, I have a good starting point.

Whether interventionists had been trained to treat challenging behaviors or not, many showed tremendous insight into the problematic nature of little training as it relates to service-delivery. The providers described in their own words how they and/or their peers might not be delivering services that are in line with best practice for treatment of challenging behaviors.

Theme 1a: Shallow toolbox. A subtheme related to interventionists' insufficient training was the “shallow toolbox” from which the providers have to work. Because interventionists may not have the training needed to serve young children with challenging behaviors, they consequently have few strategies to implement. Courtney discussed how she does not know how to move forward when none of her strategies are effective:

I think—I don't feel like my toolkit is full if I can put it that way. I have probably a half a dozen things—my go to's. When you get a child where you feel like your go to's aren't working, I'm not sure what the next step is. I typically—if that happens—I end up recommending the HOT DOCS program here. First, and then, I usually tell them about PCIT...If active ignoring and positive commands. I'm trying to think of some of the other things. Mini timeout. Just all of those simple, simple things. If those don't work, I feel like well, let's try them again. It's like I don't know what to do next... Yeah, but I just feel like my toolkit—it's not very deep.

While Courtney discussed a shallow toolbox with regard to intervention strategies, Lindsey noted that she has little understanding of strategies to use to generate parent/caregiver buy-in:

When I have a set of parents who won't try anything, they—at one point, I say, “If you don't do this, this is what's going to happen.” So, I don't always know how to handle the parent implementation and how to successfully make it seem important without scaring them to death... I guess that's my biggest challenge for sure.

Courtney and Lindsey demonstrated how their training backgrounds and shallow toolboxes might ultimately influence the efficacy of an intervention, indicating little range in their knowledge of and ability to access EBPs.

Theme 2: ABA confusion. Many interventionists revealed a limited conceptualization of behaviorism. Some indicated applied behavior analysis should be reserved for only severe behavioral cases, while others designated behaviorism as a method used only to address attention-seeking behaviors. This confusion about when and how to appropriately use applied behavior analysis illustrates the interventionists' limited understanding of best practice, and ultimately, EBPs for young children with challenging behavior. Lindsey showed her

misunderstanding of the application of behaviorism by indicating it should only be used with specific behaviors. When asked what her next steps would be if an initial intervention for self-injurious behavior were unsuccessful, she responded:

To look at a different avenue for behavior. I mean, try not to classify, but with hitting and self-harm, it is more that ABA stuff. So, it would be like, “What’s the other intent of this behavior?”

Like Lindsey, Meghan described identifying a function, or “trigger,” for only some behaviors. In this example, Meghan was analyzing a vignette about physical aggression. As part of the vignette, she described strategies she would immediately use for hitting behaviors, but reverted to identification of a function (or something similar) for biting. This was particularly interesting, as it indicated she might reserve specific strategies for certain behaviors:

With the biting, I would try to figure out why she’s biting if it’s a trigger. If it’s maybe sensory-seeking, work on chewing; giving a chew toy. I a lot of times will give a chew toy to my biting kiddos, and as soon as they bite, “This is what you bite on, not our friends” sort of thing and trying to diffuse situations if I think it is a trigger to ensure they don’t get stuck in that situation. And work on using our words to say, “Mine, no, help” whatever. But, I’d try to first figure out why she’s doing it. It doesn’t really say if there’s a trigger. Yeah, so that’s what I’d kind of look for.

Jenn also described the systematic identification of a function for specific behavioral instances, “But, there’s a few things, but I do rely on ABA sometimes. Not fully...I think it’s more so my more severe kids.”

In addition to using systematic behavioral strategies for only certain behaviors, many interventionists felt such strategies were most appropriate for children with cognitive delays or

neurological concerns. Lindsey described her conceptualization and experience with applied behavior analysis:

So, I'm still trying to figure that out as we go [when to identify a function]. When I did ABA, or when I used ABA in the classroom, it was always with older children with severe intellectual disabilities, so it was a lot of press this, then you get that. Press this, then you get this. So, trying to figure out how that works when they're three and perhaps can't talk and stuff. So, I'm still trying to figure that out.

Similarly, Jenn discussed when she was most likely to “formally” identify a behavioral function:

With Autism, I tend to do—I wish I could do more, but the hour time is not that much. But, I do tend to rely a little bit on the ABA principles to. A lot of it is the positive reinforcement.

Although many interventionists had some conceptualization of behaviorism and its relationship to best practice and service-delivery, other interventionists clearly did not understand the relationship. When asked whether Early Steps could provide more training in PBS, a framework founded in applied behavior analysis that relies on identification of a behavioral function for successful treatment, Judy responded positively, “Absolutely. We're not talking about FBAs here because that's not gonna happen. I think that the state is starting to support ABA more for very young children. I'm—it doesn't make me happy.”

Despite their noted “insufficient training,” many of the interviewees were confident in the appropriateness of their service-delivery for young children with challenging behavior. However, the information shared throughout the interviews and analysis of vignettes illustrated a clear misunderstanding of best practice, particularly with regard to behaviorism, for identifying an efficacious intervention.

Theme 3: Attention only. In addition to a misunderstanding of behaviorism, many interventionists expressed the idea that the majority of behaviors occur as a mechanism for accessing attention. Like the second theme, interventionists indicated a cognitive or neurological concern was likely present if a child did not engage in behaviors for attention. Courtney asserted:

With children with just a diagnosis of a language delay, it's typically, I see it typically as attention getting, but when you get really deep into the Autism spectrum, some children, they're not the Asperger's high functioning, but lower functioning Autism, meltdowns are an issue for them, and that's a little different. I don't consider that attention getting... I think that that's a different—in a different behavior category.

Meghan was asked specifically whether she had provided services in situations where a child was engaging in challenging behaviors for reasons besides attention, and like Courtney, she responded:

I have had a couple of kids where I—because of my training, I'm not medically trained on anything, but I have a couple of kids, where I'm like, "Something neurological is not right."... And I'm really outspoken, so at that point, I tell the family "We need to talk to your pediatrician. We need to look at some more—We need to figure something else out cause something is not—" If you can really—you can really tell. They know what they're doing and they're doing it for a purpose, and if they're head banging or they're aggressively picking at themselves, or their doing something that you're like, "He doesn't understand what he's doing," and that's where I'm like, "We need to push for more. Something else is going on."

Interventionists also conceptualized specific behaviors, particularly tantrums and self-injurious behavior, as most related to attention seeking. Jenn said the following when analyzing a vignette related to tantrums:

Yeah, it's just really—yeah, if it's tantrumming it's really doing the ignoring and offering a lot of the positive praise for the positive behaviors that he is doing, so that he can try to do more of those behaviors. So, with him, too, a behavioral program, but more so of verbal—verbal praises, verbal rewards. Excitement and being excited when he actually does comply. And then, yeah, maybe removing his peers from around him if he's in a daycare environment just so that he's not hitting or hurting someone while he's in that tantrum. Moving him to the chair and the crying it's really just ignoring it. I mean, there's not really much you can do but ignoring it. It's just a lot of planned ignoring, I think.

Judy also had similar ideas about tantrumming and attention-seeking behaviors when analyzing the same vignette as Jenn:

Ah, Diego. Yeah, I've had several, I mean, numerous kids do this and again, you need to look at what triggers that behavior. Is it environmental? Is it a behavior on the part of the caretaker? And I'm for pretty much ignoring tantrumming. I feel like Dr. MacDonald says every time you give your tantrumming child eye contact, it's like giving them a \$20 bill. No eye contact and I actually recommend that the parent get up and find something else to do. Make sure you have something else to do. Yeah, and that works. In fact, I just came from a house, and it does work. So, but if it doesn't work, you have to definitely want to wonder if there's something else going on besides the usual childhood desire for control. You'd want to wonder cause it usually does work.

Courtney discussed self-injurious behavior as a function of attention, but only for typically developing children, “Honestly, if the child’s not intellectually disabled, it’s worked 100%—active ignoring on that—has worked 100% of the time with me...Just it’s always—almost always for effect.”

Meghan also discussed self-injurious behavior and noted there were no other strategies to use with self-injurious behavior but active ignoring:

Head banging is the worst. I always move them to a soft surface and walk away and ignore it. A lot of times with head banging, we’re so quick to jump and to run and to make them stop that they just continue to do it because it gets them—and it’s so violent that a lot of times... that’s all I have on that one is find a soft surface and to literally ignore it. Because what else do you do?

Melissa additionally discussed the prevalence of attention-seeking behaviors from the infant and toddler population. She described the importance of looking specifically for signs of attention-seeking behavior when children engage in self-injury or tantrums:

If I could tell, “Yes, she’s attention-seeking. Yes, she’s trying to get—is she aware people are watching her when she’s doing it?” I mean, to me, that’s the biggest thing to look for in those kind of situations [tantrums and self-injury] to see if you felt—or if you felt like it was something more than that.

Unlike other interventionists, Caitlin described her ideas about behavioral strategies and their use among other providers. Caitlin talked about consulting with an interventionist who conceptualized behaviorism as related to attention only:

So, she [an ITDS with whom Caitlin was consulting]...had always found useful the idea that if a behavior happens that is not very adaptive or is inappropriate in some way, then

you ignore it. Okay? So, I suggested that if the child is behaving in a way that is kind of dysregulated, it's saying that they cannot do it. They need help and just ignoring really doesn't give them the kind of supports they might need.

It is concerning to find so many interventionists considering attention as the primary function of behavior. This perception of children's behavior may lead to service-delivery in which all children are given a universal intervention, rather than treatment that is tailored to their individual needs. Ultimately, children may not receive the correct evidence-based treatment if interventionists instruct parents to ignore most behaviors and suggest an evaluation when planned ignoring is unsuccessful. This type of service-delivery again indicates a limited knowledge and use of best practice for young children with challenging behavior, which ultimately leads to deficient implementation of appropriate EBPs for challenging behavior.

In addition to the themes, the rating scales featured in Table 3 help to understand the interventionists' knowledge and use of EBPs, as the scores provide an indication of the deficits of each interventionist in terms of their service-delivery. Few interventionists understand how to systematically identify an intervention for a child with challenging behaviors by identifying a function. The general rating indicates the interventionists' understanding of EBPs according to their responses to questions about their current service-delivery. The vignette rating indicates interventionists' understanding of EBPs according to their analysis of the four vignettes. Each vignette was scored separately, and the average score is represented in Table 3.

In terms of general ratings, three interventionists scored a 1, which indicates the interventionist did not engage in any action steps towards identifying a behavioral function. However, the intervention strategies utilized by these interventionists were supported by research. Notably, one interventionist who scored a 1 was a psychologist whose training

background was in developmental psychology. Thus, this interventionist provided services according to best practice from a developmental perspective instead of a behavioral perspective.

Four interventionists scored a 2, which indicates they engaged in some action steps towards identifying a behavioral function such as identifying antecedents or consequences to the behavior, observing the child in several situations, or asking other context-related questions about the behavior. However, these interventionists did not systematically identify a function by utilizing a multi-method, multi-informant approach to identify the antecedents and consequences of the behavior. Moreover, these interventionists may or may not have implemented strategies that were related to the partially identified function of the behavior. In fact, none of these interventionists explicitly noted that they chose the strategies because of the partially identified function. The interventionists did, however, implement strategies that were evidence-based.

Three interventionists scored a 3, which indicates they systematically identified a behavioral function, tied the intervention strategies to the function, and employed evidence-based strategies. The interventionists who scored a 3 are more likely to have a full understanding of best practice for identifying and implementing appropriate EBPs for young children with challenging behavior. Two of the three interventionists specifically noted they identified their interventions based on the function of the child's behavior.

In terms of the vignette scoring, four interventionists scored a 1, which indicates the interventionists did not express a need for additional information about the antecedents or consequences to the behavior and immediately recommended strategies for each operational definition of the behavior in the vignettes. Most interventionists supplied evidence-based strategies; however, the strategies were not based on a potential function of behavior.

Interestingly, Meghan earned a 3 on the general scoring and a 1 on the vignette scoring. The

scores are discrepant because it became clearer as she analyzed the vignettes that she conceptualized behaviors as a function of attention only (see above for selected examples from transcripts). Thus, the general scoring guidelines potentially produced a false positive in terms of Meghan's knowledge and use of EBPs.

Three interventionists scored between a 1 and 2, which demonstrates the interventionists sometimes or always asked for additional information about the behavior, but did not provide recommendations specifically related to a function of behavior. For example, the interventionist would express a need for more information about antecedents, consequences, or other contextual information, but they would not provide recommendations explicitly based on the information they gathered. One additional interventionist scored between a 2 and 3, which indicates she sometimes expressed a need for additional information to suggest a functional intervention, but she did not always request more information or note additional information would be used to identify a function. Overall, interventionists who scored between a 1 and below a 3 are indicative of providers who consider behavior analytic strategies to be more applicable to some behaviors over others, as described through the theme "ABA Confusion."

Two interventionists scored a 3, which illustrates a strong understanding of best practice for identifying EBPs for challenging behavior. These interventionists asked for additional information and explicitly noted the information would be used to identify a functional intervention. Both interventionists who scored a 3 on the vignette scoring also scored a 3 on the general scoring, which indicates these providers have a deep understanding of EBPs for young children with challenging behavior.

Ultimately, the rating scales demonstrate that few interventionists have a complete understanding of EBPs for young children with challenging behaviors. Only two interventionists

reliably discussed the importance of identifying a behavioral function to inform intervention development. Moreover, the rating scales further underscore the themes of “ABA Confusion” and “Attention Only.”

Question 2: To What Extent, if any, are there Differences between Licensed and Non-Licensed Interventionists in the Knowledge and Use of Evidence-Based Practices for Challenging Behavior?

The differences between interventionists in terms of their knowledge and use of EBPs can be understood through the rating scales and interventionists’ report of training background shown in Tables 3 and 1, respectively. Differences were not related to licensure status (i.e., EI vs. ITDS) as hypothesized, but they were related to training background. One interventionist who scored a 3 on both rating scales was an EI, while the other interventionist who scored a 3 on both rating scales was an ITDS. Though the high scoring interventionists held different licenses through Early Steps, they both had graduate training explicitly related to behavior management, as the EI was trained as a school psychologist and the ITDS was trained as a behavior analyst and held a license as a Board Certified Behavior Analyst. These providers also described more sophisticated interventions in comparison to the other providers who were not trained specifically in behavior analysis. The interventions were informed by a function of behavior and included a teaching component, wherein the children acquired a functional replacement behavior. By comparison, other providers typically created interventions only to extinguish a behavior, and the interventions were not informed by a function.

One notable exception to the findings indicated by the rating scale was Caitlin, who was an EI trained as a doctoral level developmental/clinical psychologist. Because Caitlin was not trained as a behavior analyst, she did not earn high scores on the rating scales, which were

developed from a behavioral perspective. However, she systematically chose evidence-based intervention strategies according to the theoretical framework from which she was trained, which was not a skill other low scoring interventionists demonstrated. Moreover, Caitlin specifically discussed the theory behind her strategies, saying:

So, what you are trying to do, and believe me, I don't always do this for the children, but this is what's the idea or the theory...that you provide them with the support, really, the support that they need by feeling reassured, okay? By feeling safe, so that they can try a different way, okay? So, when they feel safe and supported, they are going to be able to regulate and optimize their problem-solving...to explore other ideas and so on. So, that's the idea. It's just kind of hold—psychologically hold the child.

Caitlin used a trauma-informed approach, which was appropriate given the history of the children she was serving. Thus, this researcher believes Caitlin also purposefully identified evidence-based intervention strategies, but because she operated from a developmental/clinical framework, she was not identified as an interventionist who had a strong knowledge and use of EBPs according to the rating scales.

The rating scales additionally reveal that differences in knowledge and use of EBPs for young children with challenging behaviors lies within training background more than the licensure status applied by Early Steps, as one ITDS and one EI who were trained in behavior analytic strategies earned high scores, while two EIs scored similarly to other ITDSs who were also not trained in behavior analysis.

Question 3: How do Providers Decide Which Interventions Best Meet the Needs of the Child/Referral Concern?

Most interventionists discussed an unsystematic decision-making process with regard to intervention development for their own cases and for vignettes. Providers often made decisions for strategy implementation by observing the behavior while asking some general questions, and then delving “straight to strategies,” often without conducting a strategic FBA to identify a behavioral function. The interventionists generally used EBPs they learned from their educational background, clinical experience, prior training, or “common sense.” Interventionists also discussed conducting their own Internet or literary research to identify other strategies. The following themes exemplify the providers’ decision-making process with regard to intervention identification.

Theme 4: Straight to strategies. When describing current intervention practices and analyzing vignettes, interventionists often jumped from problem identification to intervention development without a greater understanding of why the behavior was occurring. Many times, this was a result of interventionists’ misconception that behaviors occur in order to access attention. Meghan described the first encounter she had with a case on which she was working at the time:

I’m pretty sure we started walking—I started walking mom through how to handle that situation. Just thinking of what I would do. Which, my first instinct to her was just to completely ignore him because he would—he threw a couple of pieces of things, and then, he would—and then, he looked at her and he looked at me and he picked up two more pieces, threw it, looked at her, looked at me, looked back at me, and then smacked

her. And [that] was typical kind of attention-seeking. Like, “Hello, I’m doing something. Why aren’t you doing something back?”

Meghan also described that she uses the same method for all children with self-injurious behavior:

Head banging is the worst. I always move them to a soft surface and walk away and ignore it. A lot of times with head banging, we’re so quick to jump and to run and to make them stop that they just continue to do it because it gets them—and it’s so violent...

In addition, Melissa discussed using planned ignoring specifically for tantrums without first identifying the reason for the tantrum:

So, for this one [vignette], hold on. I would—I mean, I would use planned ignoring for that. Just ignoring him until he’s quiet, and then giving him praise for that. I would—I probably would instruct the parent not to move him. Just leave him where he is...

When analyzing a vignette related to physical aggression, Courtney first described using antecedent control, an evidence-based strategy consistent with the antecedents and consequences of behavior; however, she described using this strategy before she gathered any further information about the behavior. Like others, she implied using the same or similar strategies with all children who are physically aggressive:

When you get kids that are extremely physical, the first thing I would think to coach the parents to do is, “Let’s look at any kind of preventive measures we can put in.” Is this especially for an animal if she’s hurting a family pet, let’s see if we can make sure she doesn’t have access to the pet, especially access to the pet when maybe you’re not watching her. So, I would look at preventive things first. How can we prevent her from doing these things?

Interventionists provided a wide range of responses when analyzing the first vignette in which a 27-month-old boy engaged in crying at story time. Although the responses were variable, interventionists were similar in their unsystematic approach to intervening with the behavior.

Lindsey responded:

And so, like I said, I believe in giving choices. So, even before making him sit down is asking him, “Do you want to sit on the bed or do you want to sit on this chair?” And so, try to give him choices. Same thing with the story. Give him the two books that you were planning on reading that night and saying, “Which one would you like to do better?” I would also think about doing it in smaller pieces, so maybe he doesn’t have to listen to the whole book. Maybe you just tell him, “We’re just going to read up until this page.” And doing it in small doses because for a 27-month-old, it would be a lot to expect them to sit for five minutes. So, I would definitely just break it down into smaller steps to begin with and give them—even if they could just sit and look at the front cover. Give them rounds of reinforcement. Let them go play, and then, move on again and try the next day to do front cover and the next page, “Great, you did it! Go on and play now.”

But, storytelling shouldn’t be a fight.

While Lindsey described choice-making and differential reinforcement in addition to developmental considerations, Gina took a developmental approach:

Well, if I have somebody that refuses to sit to listen to the story, I probably first, I don’t read the book—I don’t expect to read the book completely to the kid. I only probably do one page at a time. And ask him really simple questions about, “What do you see? What happened in this picture?” It all depends, I mean, what he’s doing. And refusal looks like walking away from the activity and audibly—and he starts crying. Okay, I can offer to do

it quickly and change my activity and just to keep him motivated—see what he wants and probably be able to change my activity. I demonstrate, “Okay, when I finish this, let’s do only one page, and then we are going to do whatever you want.”

The theme, “Straight to Strategies,” indicates interventionists likely make decisions based on strategies they have known to work with similar behaviors in the past. This theme aligns with the themes “ABA Confusion” and “Attention Only,” as interventionists demonstrated throughout the interview that they often assume behaviors occur for exclusive reasons such as to gain access to attention. As a result, interventionists most often described immediate use of evidence-based strategies such as planned ignoring plus differential reinforcement of alternative behaviors for a variety of behaviors.

Theme 5: Self-guided research. Although many providers described delving straight into strategies, some of them also discussed that they look to the Internet or books to learn about more practices to use. Gina, for example, said, “When I got a problem, I sometimes go to the Internet and see what I can do.” When asked where she learned about some of her practices, Courtney responded:

Well, a lot of it came back from my undergrad. It was like I remembered a lot of it, but I also do—I do a lot of—I’m on a lot of Autism sites, books, pages. And there’s a lot on, I mean, the Autism discussion page on Facebook is just a site that you can go to and it’s just experts on Autism and behavior and it gives you a real, a nice understanding of it. Mostly just reading on my own. Just, and looking things up and refreshing my memory and watching other providers practice it, too, helps you.

Lindsey also described her self-guided research, “I’m actually, right now, just doing tons of research on my own about ABA cause I do feel like it would help with some of these challenging

behaviors...” Similar to Lindsey, Judy detailed conducting her own research, but not because she was interested in learning more about a subject, “...the service coordinators are so overwhelmed with high caseloads that they really have very little time to do that kind of research, so I end up doing it myself.”

Interventionists generally are not using a methodical process for decision-making with regard to intervention development and implementation. Even though some interventionists engage in their own research, their practices do not seem to be affected in terms of use of best practice for identifying an appropriate evidence-based intervention. Their decision-making process is marked by assumptions about functions of behavior, which lead to similar recommendations for many children.

Question 4: What are the Current Treatments or Interventions that are Being Used to Address Challenging Behavior?

Interventionists used a range of strategies to address challenging behaviors with some practices used with a greater frequency than others. Once strategies are identified and implemented, however, nearly all providers reported they do not engage insufficient progress monitoring to determine whether their interventions are effective.

A list of intervention strategies utilized along with the frequency with which they were mentioned can be found in Table 4. Given the pervasiveness of the notion that behaviors occur as a function of attention, it is unsurprising that planned ignoring and differential reinforcement of alternative behavior were the most heavily cited strategies. Aside from positive commands (e.g., phrasing requests as “Nice hands” versus “Don’t hit”), the other intervention strategies and programs mentioned were wide-ranging and infrequently used among providers.

Theme 6: Problematic progress monitoring. Nine of the providers interviewed reported they relied on observational evidence from weekly sessions and/or anecdotal evidence from parent report to evaluate the efficacy of an intervention. Courtney noted she has no way to monitor response to intervention besides parent report. She described the questions she asked one of her families to gauge the effectiveness of her intervention:

Well, there's no way for me to tell. I always ask parents [about] whatever we worked on the week before, whatever it was. I always come in and say after we've talked a little bit, and I say, "How did your week go? Tell me about your week," and some—this particular lady will say "Oh, well, same thing happened. They are just all over the place." And I say, "Okay, well tell me—" and then I'll try to get specific, "Tell me a situation. Tell me one thing that happened."...And I'll get in there and say, "And what did you do? Were you able to actively ignore?" And she'll say, "Well, kind of, but I couldn't do it all." And it's like, "What prevented you? What's the hardest part about it?"...The whole time I'm reinforcing, saying, "I know it's hard."...But, that's about all as far as data collection.

Lindsey, on the other hand, noted that parents are not always trustworthy in their report of a child's response to intervention. She discussed how she observed a child's behaviors during weekly sessions to determine the efficacy of an intervention:

Well, so, I guess it really is just how he responds in my session and if dad is able, or if we as a team, are able to get him out of a temper tantrum quicker than the usual 20, 25 minutes. I do ask dad and even brother is there and I'll be like, "Oh, how'd he do this week? Is he talking any more?" or "How are the temper tantrums?" And they always say, "Oh, it was fine. He was great. He didn't have any." And then 20 minutes into the session, he starts to have one, and they're like, "Oh, he had the—he was so much worse

yesterday. He did not—he broke this. He broke that. And the day before, he punched his mother in the face, and the day before this, he did that,” and so in the beginning—I can’t use parent report. That’s not—I won’t know if the interventions are working by that. It’s just pretty much what I see.

Jenn also relied on observational evidence. When asked whether she collected any additional information, she responded:

No, we just do visual. I mean, I do write just anecdotal notes. So, it’s really when we’re typing it in. It’s not like the evidence like when you’re doing ABA therapy and you have to plot and chart and stuff like that.

When asked whether she collected additional information about intervention efficacy, Judy discussed the case notes interventionists are required to keep as her primary method of data collection:

Data wise? No, I mean, I’m doing a—I don’t know if anyone else has spoken to you about it, but we’re doing notes and software for—yeah, we have quite a lot of computer work to do...So, a lot of my notes are in the software provided by the company, but this is all, and no, I’m not collecting any other data.

Unlike others, Rhett expressed that he was dissatisfied with the amount of data he was realistically able to collect. However, he later described additional data sources he has often used in his work. When asked if he believed his intervention was effective, he responded:

I think it’s extremely effective. I know that it’s effective just, as you see the increase in their communication. You see an increase in sitting and attending. An increase in eye contact. An increase in responding to you when you walk in the home. The list is just endless for how it increases or is beneficial...I do not monitor as much as I would like.

Caitlin also described that her primary source of data was gathered from parent report. However, Caitlin also noted that she intentionally does not monitor as other professionals might, noting “I guess when the caregivers report improvement and satisfaction report from the caregiver...I don’t measure anything. I’m not a behavior analyst.”

The number of EBPs implemented by interventionists is impressive, even though they are not used systematically. However, it is concerning that providers do not collect reliable data to monitor children’s response to intervention. Part of this is likely due to the scarce amount of time allotted for case management.

Table 4

Frequency of Intervention Strategies

<u>Intervention Strategies Utilized</u>	<u>Frequency</u>	<u>Research Support Available</u>	<u>Type of Intervention (Dunlap et al., 2007)</u>
Differential Reinforcement of Alternative Behavior	8	Y	Antecedent-Based
Planned Ignoring	7	Y	Assessment-Based
Positive Commands	4	Y	Antecedent-Based
Antecedent Control	2	Y	Antecedent-Based
Capitalizing on Preferences	2	Y	Antecedent-Based
Choice-Making	2	Y	Antecedent-Based
Shaping/Successive Approximations	2	Y	Teaching Procedure
Communicating Partners Program	1	Y	N/A
Frequent Breaks	1	Y	Antecedent-Based
Negative Punishment	1	Y	Assessment-Based
Parent Coaching	1	Y	Family-Centered
Least-to-Most Prompting	1	Y	Teaching Procedure
Redirection	1	Y	Assessment-Based
Self-Management	1	Y	Teaching
Temporal Conditioning	1	Y	Procedure
Token Economy	1	Y	Antecedent-Based
Trauma-Informed Care	1	Y	Assessment-Based
			N/A

Question 5: What are the Needs of Providers in Terms of the Development of Skills to Identify Evidence-Based Interventions for Children with Challenging Behaviors (Needs Assessment)?

As interventionists responded to interview questions, several common issues were noted. Many of the problems mentioned by providers were in response to the needs assessment. As a result, themes seven through 10 are the difficulties expressed by multiple interventionists, while themes 11 through 15 are the relative needs of the providers and their suggestions for improvement.

Theme 7: Systems-level issues. Participants described a variety of concerns regarding the interpretation of the Early Steps model. Some described issues with screeners, while others mentioned problems regarding the “generalist” and “single treatment” approaches that have been translated from Early Steps policy into practice. In relation to behavioral assessment in general, Courtney noted, “The test that we do—the Battelle Developmental Inventory—really doesn’t pick up behavior at all.” Rhett further detailed some of the insensitivities of the screeners in terms of assessing long-term progress:

A lot of kids that come in with an evaluation, and then that evaluation is redone after a year and redone the year later, but it’s generally a Batelle or a [inaudible]. So, those will get their developmental scores, but it doesn’t much get their behavior. So, if we’re looking at—and sometimes I think that those scores are significantly deflated in terms of the progress our children are making. If we look at a [inaudible inventory] and you see a developmental age and it’s six months behind across the board, well, a year later, they’re nine months behind, yet, during that time, the child has gained all the behaviors. She can start working on communication [and] start working on developmental milestones

because they were having tantrums for 12 hours a day, 15 hours a day. That—those whole three months you spent on behavior or six months, whatever it was for the child are unnoticed. Well, yes, they're nine months behind, but their score has gone up minimally as far as—they have acquired skills, but the gap that their trajectory of learning was low already. That's where I think it's hard when we're looking at those quantitative scores and we're comparing them from where they were then to what the mean is today that a lot of it's suppressed because it doesn't account for any other barriers, and during—from 18 months old to a two and a half, developmentally, they're supposed to accomplish so much more, which is general with standard development. All of our children have some sort of behavior to that. When the behaviors are that intense, they shouldn't make up—they shouldn't stay at six months behind only. There should be a bigger gap in how far behind they are because the behaviors were there before the barrier.

While Courtney and Rhett provided insight into problems associated with screening and assessment for behavior, Caitlin described issues with both the generalist approach taken by Early Steps and the drawbacks of the multiple gating procedure employed by Early Steps:

A pediatrician wants their client—their patient—to have speech therapy and refer to Early Steps and they get—instead of speech therapy—they get a generalist, an ITDS. A pediatrician doesn't like that very much. Okay, and also, the—a lot of people slip through the cracks with Early Steps. So, you get referred and you have to get screened, and you have to do this. And the screening, too, sets the bar very high. They do—no, they do—it's like a mini assessment, the BDI screener...So, they have to do the screening in order to get the evaluation. The screener—and so a lot of kids don't make it—The screener has

a higher bar than the evaluation, okay...So, again, that doesn't make any sense...the gate for a screening should be always lower for the evaluation...that doesn't make sense. Again, somebody—there was a problem, and they wanted a formal instrument—I guess too many were getting in and the evaluation process was all bogged down, so they needed some kind of gate and they put a gate that's so restrictive that a lot of people don't get to go.

Like Caitlin, Judy described how Early Steps has taken a literal interpretation of the model, which she believed was to the detriment of the children served:

And I'm not having a lot of success because West Central Early Steps is where I get most of my referrals and they have taken on the model quite literally of having the primary service provider be an early interventionist, [where] you have a primary service provider—initially could have been anyone, but including the service coordinator themselves, but that they prefer to pay for early intervention and have that person look at all the areas of development, rather than have a therapist, a licensed therapist, do the job, and, we have the consult model, but none of the therapists want to participate in that because the rate is so low.

Caitlin shed additional light onto the problems associated with the consult model expressed by Judy, noting that consults are not quite accessible to interventionists. Moreover, consults are difficult to acquire due to the perceived single intervention approach of Early Steps:

They [ITDSs] can request help, and it's not forthcoming. Although, they're—when put on the spot—administrators would say that we—that they espouse a kind of a multidisciplinary intervention approach, and the family's needs—the child's needs—will drive what interventions would be put in place. It is frequently the reality that there's only

one intervention put in place. So, this has been a big bone of contention, but—so, it makes it difficult to address different needs that the child might have if one has to be picked as the most important. So, how are you going to pick? In this situation [her current case], I see as most important speech; as most important, physical therapy; as most important, mental health.

Though systems concerns may be less malleable than some of the other issues noted by interventionists, the three recommendations for these problems reported by many of the interventionists (see Table 5 below) may help alleviate the concerns noted above.

Theme 8: IFSP limitations. Almost all participants took issue with the information presented on the IFSP, which generally does not provide sufficient information to forewarn the interventionist a challenging behavior is present. Courtney captured the essence of the theme while describing one of her cases:

The surprising thing was the ISFP came, and it basically said language delay, and this happens a lot, where you kind of get in there, and the ISFP says maybe there's language, the child doesn't follow directions, but it doesn't really indicate to you that this child has behavior problems. You can't—you kind of have to go in the home, and then you're like, "Oh, okay." It doesn't take you long to figure it out once you're there.

Gina similarly chronicled the common problems associated with the IFSP, particularly when a communication or motor delay is the primary referral concern noted on the IFSP:

And, I don't know if this is a good time to mention it to you, but when you receive the IFSP, most of the time, you don't know that you've got a challenging behavior... Always is communication delay, or gross motor delay, or a combination of cognitive, communication, but it's never—I don't see it that they specify, "This child has behavior

or social problems.” That is a question there because when you go to the home and do the interview with the parents, later on, come in like, “This kid, I cannot control him. He has a lot of behaviors,” or sometimes, the parents don’t talk about it and during the session time, you can find out, “Oh my God! I mean, this is something else. That’s why he’s unable to talk because this behavior is—it’s interrupting everything for him to learn.” So, that’s a big issue when it’s not described and it’s not—the parents are not honest probably during the interview.

Rhett reported a surprising case where behaviors were not noted. The case he described was one in which the child exhibited severe tantrumming behaviors that lasted up to 14 hours per day.

Echoing others, he described the minimalist goals outlined on the IFSP:

Her original goals were very minimal. They did not address the tantrums. They did not address any of the problem behaviors. They only addressed the deficits. So, they addressed the lack of communication and lack of attending to any play tasks.

Lindsey discussed how children with challenging behaviors sometimes are not identified when they are evaluated. She noted that if children were better identified, then she might handle her initial service-delivery differently:

.... that’s how it’s going to be, so it would just be—it would have been helpful to have known that going in. You have a different perspective of like—I would have maybe even handled—I wouldn’t have brought my toys in in the beginning.

Theme 8a: IFSP constraints. A subtheme related to the “IFSP limitations” was the idea of constraints related to the IFSP. Interventionists felt a certain inability to provide behavior supports because such service provision would warrant a departure from the goals on the IFSP.

This departure would ultimately appear as though the child was making little progress with their goals over time. Rhett illustrated how restrictive the IFSP can be:

And not just what's in their IFSP, but for what's going on at the moment. The IFSPs are every six months. They're not up to date. A lot of kids—I don't know the average age that they come in, but I would assume the majority are after they're one years old...So, if their next plan isn't due for six months, that's 25% of their life later. That's a big deal. That's a significant milestone, and sometimes, you start looking at everything's moving forward with our kids, "Oh my goodness, the progress we've made in six months, but that was 30% of their life." And I don't know if the goals have to be in the IFSP more frequently, but if we were able to do more outside of the IFSP. Do more, but be able to give the family direct strategies.

Jenn described that she provided additional services, although, she did not depart greatly from the IFSP, which can be problematic if behavioral concerns are present, but are not written as part of the IFSP:

Yeah, yeah. Because that's the main focus is those goals that are written, but then we do try to work on other areas because we see needs in other areas that need helping, so we do help in other areas as well, but we do try to stick to the IFSP.

Caitlin, on the other hand, described some of the broader implications of the constraints of the IFSP, noting that children receive therapies from other sources if Early Steps cannot address each of the child's needs:

That—and even the people that are in Early Steps—they're adding to the interventions off the IFSP, okay? They say "below the line." So, say they get one service through Early Steps, but the pediatrician still says, "You need speech therapy or PT," and you're not

getting it through Early Steps. Then, they use their private insurance or Medicaid insurance, okay? So, they're getting other interventions at the same time as the Early Steps intervention. So, you cannot—even if you were looking at developmental change, or the rate of developmental change—you wouldn't be able to attribute any effectiveness of the early intervention program per se because they're having other interventions simultaneously. So, what a mess is that?

The problems associated with the IFSP clearly influence providers' service-delivery. Moreover, the issues have significant implications for parent/caregiver buy-in to the interventions, as noted below.

Theme 9: Parental/caregiver buy-in. Nearly all participants noted a main challenge to intervention integrity was parents or caregivers inconsistently applying the recommended intervention strategies. Interventionists suggested many reasons for noncompliance with interventions. One reason parents might not buy in to behavior interventions is because the behaviors were not the noted referral concern on the IFSP, as Courtney described:

Yes, and it's hard to when you get a child who, when you're there for communication primarily and the parents are expecting, "How can you make this child talk?" They'll ask you things like that. "Can you fix him? Can you make him talk? We need to make him talk," and what you have to deal with first is the behavior before you get to the language, and that's sometimes too—for parents to understand because then they'll say, "Well, I thought—"we—well, I had one child, and the parents didn't want me to—the child was throwing things. I mean, lamps across the room, and mom didn't—I would explain to mom, "We need to get his behavior in check so that we can work on his language more."

And mom would tell me point blank, “No, I don’t want you to work on any behaviors. I want you to just work on language.” That’s a tough situation.

Another reason parents or caregivers do not implement interventions with integrity is because the parents also have a skills deficit. Matthew shared his difficulties trying to teach cooking skills to a set of parents who had a child with challenging behaviors related to feeding. He additionally discussed the difficulties he had when teaching the parents to apply planned ignoring:

Training the adults to use my techniques on a consistent basis [is a challenge]. So, what the biggest challenge is would be for the adults that take care of the child, for them to alter their automatic behaviors. So, when he says things that are shocking, we have to automatically remember we’re just not gonna attend to it.

Parents also demonstrate resistance to suggested strategies by purporting they have tried many of the recommendations supplied by the interventionist. Gina noted an example of this type of resistance while describing challenges she has had implementing interventions:

Yes, because sometimes, the parent responds back to you like, “You are not here all day. You don’t know how is our day.” Or, “We never think that way.” Or, “We tried that,” and sometimes that is not true. Or, that you leave some information for them to read and they don’t read that, or they don’t believe it, and I always tell them, “I know that I’m not here every single day, and maybe when you need me, I’m not here, but just every day, dedicate to your child 15 minutes.”

Some parents go above and beyond to learn strategies while attending sessions in a clinic-based setting, but then interventionists find the strategies are seldom applied in the natural environment. Melissa described her frustration with one of her families:

This family was great. I was telling [Early Steps employee], the psychologist who was running that, I was telling her, I said, “They were my best family in terms of learning the skills, and I could sit there in five minutes and they could rattle it off, but done with that, and it’s like, I go back and they’re not using anything they talked about.” So, it’s a little—it’s just strange. A little frustrating.

Another concern with implementing strategies such as planned ignoring is the potential for children to harm themselves, which could lead to questions from Child Protective Services or the child’s daycare. Melissa discussed how the same family described above might not employ the strategies due to concern that self-injurious behavior could lead to difficulties within the foster care system:

And it’s hard for them to—I mean, and it’s really hard for them to ignore. Like, last time I was there—biting himself... So, and I’m like—I tell them, “Turn away. Don’t look. Wait until he’s doing something that you like, then you can give him praise for that,” but I think part of the difficulty for them, too, is him being in the foster care. They’re really concerned he’s gonna leave a mark. How do they document that? They want to keep them. And the same with the head banging. It’s almost just something that they have a really hard time just ignoring it because they feel like they’re really gonna hurt themselves, and then “How are we gonna explain ourselves?” Which is understandable.

Many interventionists described that they often see families where one parent buys in to the intervention, while the other parent has little or no buy-in. Lindsey expressed significant difficulty with the case she was describing during the interview, noting openness from one parent and denial from the other:

So, like I said, I don't get to see mom a lot. Mom's the breadwinner. She is really open to behavior help and everything. Dad at first thought he [the child] was fine. He would say, "Oh, he's just so smart. He doesn't want to do that. He's so smart. He knows not—he doesn't want to do that." Stuff like that. Now, I think what I'm getting more from him is he's just more, in general, putting some boundaries on him. I don't technically truly know if he's using the language I'm telling him to use. Obviously, I'm not there throughout the week, so I don't really know.

Judy expressed how behavior interventions might be incongruent with a family's cultural beliefs, which could lead to inconsistency or poor buy-in to the intervention. Judy described one of her cases that was impacted by cultural norms and differing levels of parental buy-in:

But culturally, their response to children who present with distress is to bring it and it's become quite an interesting way for this particular child to avoid. He's avoiding by coming to the father, and I've spoken to him about it. I said, "We need a little more self regulation here" and he understands. So, that's beginning to change. Mom is much more practical. She gets it.

A final noted concern was interventionists frequently having difficulties with daycare providers implementing interventions consistently as recommended. Though she was empathetic to the challenges teachers face, Jenn also found intervention inconsistency problematic in daycares.

Jenn related the struggles of seeing a child in a daycare setting:

The teacher kind of follows through. She just—it's hard to kind of know from week to week what she's done because she has a lot on her plate. So, when we do the interventions in the school, yeah, we can coach them and we can teach them as much as

we can, but she's also not focusing on that one child, so there's no way for us to know whether or not these interventions are working and if she's really doing them.

Theme 10: Advocacy. A major recommendation provided by interventionists was for Early Steps to provide more accessible behavior consults. Not all interventionists felt that acquiring a behavior consult was difficult, however. Some providers noted that accessing support was seamless so long as interventionists advocated for themselves and made their voices heard. Jenn illustrated her own self-advocacy:

I mean, I think right now they do—they try to do a good job with having us team up with a psychologist. If it's a serious difficult case, they will identify it because I make sure I e-mail and ask and talk. I don't just sit there and not say anything. So, if I'm having issues, I'm going to let them know. Okay, so, they make sure to give us someone—an expert—to come along. Or, do the phone, the phone interviews... I make my voice heard. It's so simple. You can't sit there and complain and say no one's helping if you're not reaching out to them.

When asked whether she had found it hard to find behavior consults, Meghan noted she has never experienced difficulty because of her credibility as an interventionist:

None because it comes from me. So, when I ask for something, they're like, "Okay, she must actually really need something." Not just because. Yeah, they know—with [Early Steps employee]. Yeah, and I need the help. I need the assistance. It's not just me wanting to go have lunch or dinner with my coworker and get paid for it. It's because I really need this for this child.

Melissa was a provider who would be a consultant to other interventionists. She similarly described the importance of self-advocacy when a provider needs additional support. When asked if she thought interventionists have difficulty accessing consults, Melissa replied:

I don't know if they're having an easy time, but I think sometimes I've been assigned to consult, and then they didn't really follow through with me. So, I feel like if you—if you're the person seeking the consult, it's your job to line it up, contact the person, and follow through. I mean, I'll still contact them, but at that point, I'm like, "This is on you. You've gotta figure out when we're gonna meet and talk. It's your family."

Interventionists mentioned a number of individual and systems-level problems that inhibit their ability to provide adequate services. In response to these difficulties, they brainstormed potential solutions for Early Steps. Ideas expressed by interventionists are detailed below.

Theme 11: IFSP identification. In response to problems associated with the IFSP process, interventionists suggested the IFSP include more explicit information about behaviors along with broader goals so children may receive a wider variety of services. Courtney suggested behavior screeners be given more often, noting:

I think, first of all, have more of a warning signal on an IFSP that a child has a challenging behavior... if there was a simple behavior tool...that you could give an evaluator to see, mmm, this child does have some behaviors that maybe aren't addressed that's not going to be picked up by the Battelle [or] something similar where they could pull it out and say, "Do you mind if we do this behavior assessment real quick?"

Therefore, at least when I get the IFSP, it's gonna say they did XYZ behavior assessment, and I'm gonna know that the evaluators had suspicions about behavior.

Gina also suggested more oversight of potential behavior problems when a child is initially evaluated. This may also alleviate some of the concerns related to parental/caregiver buy-in to behavior interventions. Gina expressed:

Maybe when the parents go to the interview for the IFSP and you guys, or the evaluators notice that it's a behavior issue, [they] need to...address it there and try to figure out what else needs to be done.

Rhett additionally noted the importance of identifying behavior concerns during the evaluation, especially as parents may not believe intervention services for behaviors are available. Rhett alluded that parents might not always be forthcoming with information because they are unsure:

No, I think you really highlighted with the behavior—making sure that any behavior problems are thoroughly addressed, and a lot of times, parents are afraid to mention it. They think that, “Oh, he’s not going to be able to help.”

Caitlin suggested broadening the goals on the IFSP in order to provide more comprehensive services. She also noted the importance of training along with broadening goals written on the IFSP:

To to me, the goals on the IFSP can be much broader...and I think it would help if we broaden those goals, and then, certainly, the person who is addressing those goals also has to have a broadened attitude, and sphere, and training, and yeah, we give—I think USF gives a lot of trainings on how to administer tests and how to use the natural environment. I think they're all useful, but it's—this is maybe an afterthought. Instead, it should be the biggest thing.

As discussed by the interventionists, identification of challenging behaviors on the IFSP could attenuate some of the concerns related to “IFSP Limitations” and “IFSP Constraints” along

with “Parental/Caregiver Buy-In.” Evaluators should consider directly addressing behaviors as a primary or secondary concern in order to create a more seamless process for providers in terms of identification of intervention strategies. This may also result in parents gaining a better understanding of the importance of behavior supports prior to or in conjunction with other services provided. Systems-level issues may also be resolved, as specific behavior screeners would be sensitive to behavioral and social-emotional change and children would make greater progress on their goals. In addition, children could potentially receive a wider range of services through broadened IFSP goals.

Theme 12: Clear communication. Interventionists also described the importance of having better communication at Early Steps, which would help resolve some of the broader “Systems-Level Issues” noted by many of the providers. Participants provided many suggestions for the betterment of communication. Caitlin illustrated some of the implications of a poor “feedback loop” between providers and administrators and suggested this be improved:

So, okay, here. There needs to be a better feedback loop. Because the system is so large. But, there needs to be a loop between the person who is in the trenches [and] is with the child and family in the environment back to the people who are making the policies. Making the decisions. The administrators. Now, if not, they [the interventionists] just grumble here, and, they [the administrators] make decisions. They are well intended, I imagine. They deal with large groups of things, but it gets disconnected from the real world, and then they don’t have—then it’s not helpful anymore.

Meghan also frequently discussed the disconnected communication at Early Steps. She suggested one way to improve communication would be through more frequent meetings:

Mandatory training and mandatory meetings, which is something that I don't think that they've ever done or ever thought about doing, but a good friend of mine is from New York and she did her schooling in New York, and then she moved to Boca and they had team meetings quarterly. Team meetings as in not just provider agency leads, [but] providers. Everybody. Mandatory meetings about everything quarterly, and she said it was really helpful cause when things changed, it was passed on and we knew it was, and they—and Early Steps felt like “We better get our information straight before we give it to 400 people at once.”

Gina also expressed the difficulties she has experienced with her service-delivery when there is miscommunication or when communication between providers and service coordinators is lagging, noting:

As problems arise, sometimes, you need to call the coordinators to let them know, “Hey, this is not working. Like I said before, the IFSP is not helping me because, for example, the kid is crawling, but he needs help on this.” If change can be done quickly, and it's specific, so you need to be working on whatever you need to work or follow the parents' needs...Again, I think communication is really important between the service coordinator and provider. A quick response.

If providers were able to receive more information directly from Early Steps and if Early Steps administrators were able to receive more information directly from providers, then some of the “Systems-Level Issues” might be reduced. Providers would gain a better understanding of the Early Steps model from which they are working and administrators could make changes that are feasible to implement in practice.

Theme 13: Consult accessibility. Though some interventionists felt that advocacy was the key to obtaining a behavior consult, the vast majority of ITDSs noted extreme difficulty accessing behavior consults, even when they requested one. Even those who did note they advocate for themselves described the importance of having greater accountability through more regular case consultation. Courtney described the value of a consult to improve her service-delivery:

I think it'd be also great if we could have access to behavior specialists more. To get somebody to come into the home with you to come in and observe the behavior...for me, am I—are these the right things for the child that I'm doing here? Sometimes, I would like a little reinforcement. Is it working or is it not?

Lindsey discussed the value of an “expert” opinion in the home in order to increase parental buy-in, saying “...sometimes, just having that behavior specialist to come in and say something. I think that would be just so helpful.”

Lindsey also noted the challenges of having so few behavior specialists available. In opposition to the idea of advocacy, she implied behavior specialists are more common in some areas than others, saying:

So, I've talked to the service coordinator and they've discussed maybe sending me a behavior interventionist, or at least a consult of some sort, but I mean, they were very honest with me and said that it is really hard and that they're just not that common in this area.

As a solution to some of the problems associated with access to behavior consults, Jenn suggested increasing communication about the people who are available to act as a consult, noting:

I mean, they already—and, possibly having more people or more experts to contact. Cause right now it really is just [the psychologist] and [the other psychologist]. If they had more people who could come out and go into the field and help...

Other interventionists discussed having more case consultation across the board. Meghan described how she felt interventionists operate when little case consultation is available:

I don't think that we push enough consultations. I don't think that we push enough for ITDSs to really define their craft and define what they're supposed to be doing because I don't know how many that I can tell you that I've seen or talked to or heard of that are like, "Oh, you do that kind of stuff? I take my bag, and we do some puzzles. We build some peg stackers. We do a shape sorter. They sign the paper, and then I leave." And I'm like, "So, you're basically a daycare teacher that goes in for an hour a week. What is that doing for anybody?"

Meghan also discussed the benefits of regular case consultation as she experienced it in past work. As a solution to some of the poor service-delivery provided by ITDSs, Meghan suggested having more of a team approach in which consults are readily available:

...when I started working with Early Steps, there was a required consultation on every single child every month. Crazy, it was crazy. So, if you had a communication delay, it was a speech consult. If you had a motor delay, it was a PT consult. Autistic children had OT consults for sensory... That's where I think I learned the most was from my consultation providers... because some of them have been around longer. Obviously, they were different disciplines. So, I learned stuff that I didn't know at all. And it was crazy scheduling-wise, but it was the definition of a team approach, which I love.

Melissa similarly discussed having greater case consultation for not only ITDSs, but also EIs.

Melissa described the importance of problem solving with peers on a regular basis:

But I'd say for me, I would be someone who would go consult with other ITDSs. But there are times when I...want the consult for me. But I don't necessarily feel like I need to have it officially on my IFSP. I don't need that, but I need, I think you need people that you can discuss your cases with, or that you can—yeah, just discuss your case and brainstorm ideas and what you should be doing and accountability, too, to what you're doing, and that's something I don't think Early Steps is very good at. It's just all out there.

Not only would providing more access to behavior consults improve some of the “System-Level Issues” related to the “generalist” approach by ensuring children receive more comprehensive and appropriate services, but it would also help interventionists gain a better understanding of systematic service-delivery for behaviors. As Meghan noted, interventionists learn more by observing trained consults engage in best practice.

Theme 14: Increased training. Interventionists demonstrated great insight into their need for more training regarding service-delivery for challenging behaviors. As a result, participants overwhelmingly requested more training opportunities. However, interventionists each noted different needs in terms of their professional development. Courtney discussed a need for training from a practitioner in addition to training regarding facilitation of parent buy-in, saying:

I think you would need somebody, too, that's gonna give you concrete tools. I mean, we had a lot—I attend almost every opportunity that Early Steps gives for learning. We've had, and we've had great opportunities, but sometimes, it's somebody that's not in the

trenches. That's up there just talking, and it's like, well, you don't really know how it is in the home...I want somebody that's done it...I want somebody that sees that every parent is not on board. I would love somebody to coach me. What's the verbiage you can use with parents to get them back on board? Give me a script. I'm not beyond, "Give me a script of what are great things to say to parents to get on board." I can change it to work for me. But, kind of like, what are the important things to tell parents? But, I think that you need a behavior person that's been there. That's been in the homes and done it and has dealt with these kids. Not somebody that's read about it in books because it's very different.

Lindsey similarly asked for professional development surrounding facilitation of parent buy-in, "I don't know if there's a way—I'm open to trainings about appropriate words to use [to facilitate buy-in]."

Jenn, on the other hand, requested more training from doctoral level students about strategies supported by research. In particular, she wanted psychology-related trainings for behavior that are specifically made for interventionists:

So, with the training or professional development if they were to have you guys [school psychology students] come and do—you know what I'm saying? Not just PCIT where it's something that we have to pay for and learn. Even if snippets are taught to us. And it's more of the research data and we hear more from the Ph.D. level students and more trainings that are psychology based. It would help, but I don't think they have any other than HOT DOCS and, it's just, that's not for us. That's mainly the parents.

Judy requested more training related to PBS specifically. In addition, she noted the importance of Early Steps providing professional development related to culturally responsive service-delivery:

Well, I think also in addition to Positive Behavior Supports, I think it would probably be worthwhile for Early Steps to provide a training in how to deal with cultural differences. Yeah, I'm not so sure. I'm old and I've really had a lot of experience. So, it's no big surprise to me, but I can see some of the young, maybe less experienced people coming in and having a problem with that.

Jenn and Melissa discussed increasing the accessibility of professional development so the greatest number of interventionists may benefit. Melissa said:

You have to be so flexible. And that's why with [another training], we started—we really should have met at—you really should meet anywhere from 12-2 because that's daycare, naps, and everything. So, that's usually a lot of people can find downtime in that time. So, I would think if they would do more trainings that were lunchtime. You bring your lunch and you do that, that might be—you're still not gonna draw everyone, and logistics in terms of where you hold them, and everything.

In addition to training for providers, Gina requested accessible training for parents as well. She described the weekly home visits are sometimes insufficient to coach parents. Gina suggested:

I would love that they provide trainings for parents. Before, I remember, they used to be free. They are not free anymore, and you got families that they have the needs to learn how to change what is not working for them because they say, "Oh, I got a routine," but when you look and you start talking to them, you find out that 18 months baby is going to bed 2 o'clock in the morning because parents are watching t.v. and she is watching t.v. too.

Increased training would address the skills deficits interventionists have with regard to their understanding of behaviorism and with systematic service-delivery for behaviors. In

addition, interventionists described how increased training would alleviate concerns with garnering parent buy-in to behavior interventions.

Theme 15: Supplementary resources. A final suggestion mentioned by several interventionists was for Early Steps to provide additional evidence-based resources for both providers and families. Courtney specifically asked for a “library” of resources from which providers could pull for their own benefit and for the benefit of parents:

Maybe a library of even books of resources, handouts, things that we could download. Even like I was saying, there’s a—the Be Direct thing that all of us love. That’s something from USF, but I don’t think everybody has that...I got that from a provider because we all—a few of us get together about once a month for lunch, and we all will share resources...but that’s the kind of thing that if everybody had access to that—it’s a great handout for parents. It’s just very simple and easy to read and easy to, I think, implement...We have a kid with behavior let’s go up there. What opportunity could we give parents—leave with them when we’re gone? So, I think a library would be a great idea.

Lindsey also discussed a need for more resources outlining strategies and behavioral outcomes to give parents. She specifically requested research-based resources:

I think maybe just having more research and maybe just flat out knowledge that I can give a parents and be like, “This is what we know about behaviors in toddlers. Read it as you will and come back to me with questions.” Just in any way, shape, or form having more knowledge cause right now it’s like mind reading. I know, and I’ve read this article. Let me tell you about this article about—I don’t always have the article with me to give them, so I guess having more of those resources to give them,

Jenn discussed how additional resources could resolve some of the struggles associated with the IFSP goals. Echoing Courtney, Jenn requested a “behavioral notebook” that might help her improve her knowledge of evidence-based strategies for challenging behaviors:

Yeah, just having...more tools to pull from. Even if we had more pamphlets. I don't know. Something—some kind of behavioral notebook that we can look [and find] different strategies. That would be really good. Cause, yeah, they—with the IFSP, right, sometimes they write the goals, and then, sometimes the strategies are written. They will put some, a few behavior strategies, but it's not—it's written by the service coordinators, and they may not have the background. You see what I'm saying?

Jenn also suggested Early Steps provide more information about community resources available to families in order to boost interventionists' wraparound service-delivery:

Linking us with more resources in the community maybe...When they have an intake, right? The service coordinator gives the client—the mom and family—they give them all the resources, right? And when you go into Early Steps, they have that resource table with a bunch of pamphlets, flyers, all that stuff. So, not all of us get up there to get that stuff. I make a point to drive there once in a blue moon, and I get that stuff, and I have a folder/binder, and I have it all in there, but not everyone does that. So, how do we really know how to help our parents and families access all these resources if no one's really telling us what's out there? Okay? So, that's one of my things cause even they have the family resource specialist that's there, [name], but she's only one person. So, [resource specialist] helps, but she can't help everybody. And it takes her sometimes a while to kind of get back. So, it's like, okay how do we, ourselves, without having to sit and really just Google everything, do a better job of helping us find out these resources and how to

help our parents access them because some of our families need much more than just us.

It's the wraparound care.

A final suggestion made by Judy was to increase resources for families specifically. In particular, Judy discussed the importance of community events for families to attend:

The other thing that I would like to see is more opportunities for families to be with each other. To share. I did a lot of that when I was employed at Early Steps. And I've found that it took them out of isolation because that does happen. And I don't see that happening much anymore.

Providing more resources to interventionists and families can help providers gain a greater understanding of evidence-based interventions for behaviors. Resources can also be an easy method of building parent buy-in and imparting information to parents. Resources can additionally be an efficient method for Early Steps to provide more support to its providers.

The table below provides a side-by-side comparison of the barriers to effective service-delivery discussed by the interventionists and the associated solutions.

Table 5

Barriers to Service-Delivery and Identified Solutions

<u>Barrier</u>	<u>Solution</u>
Insufficient Training	Increased Training Supplementary Resources
Shallow Toolbox	Increased Training Supplementary Resources
ABA Confusion	Increased Training Supplementary Resources
Attention Only	Increased Training Supplementary Resources

Table 5 (Continued)

Straight to Strategies	Increased Training Supplementary Resources
Problematic Progress Monitoring	Increased Training
Systems-Level Issues	Clear Communication Consult Accessibility IFSP Identification
IFSP Limitations	IFSP Identification
IFSP Constraints	IFSP Identification
Parental/Caregiver Buy-In	Increased Training Supplementary Resources

Note. The barriers in this table were identified by the researcher and the interventionists in response to research questions 1, 3, 4, and 5.

Chapter Five:

Discussion

The presence of challenging behaviors in early childhood is associated with a plethora of negative outcomes with regard to relationships (both in childhood and adulthood), academic performance, and professional success in adulthood (Fox & Smith, 2007). Thus, the examination of the use of EBPs for young children with challenging behaviors was particularly important, as early prevention and intervention efforts act to suppress the outcomes associated with challenging behaviors in early childhood (Fox & Smith, 2007). The purpose of this study was to gain a preliminary understanding of Early Steps interventionists' knowledge and use of EBPs for young children with challenging behaviors. An additional purpose was to identify the process of intervention identification and implementation, while also examining the challenges associated with service-delivery and how Early Steps could alleviate such challenges. Results generally indicated that interventionists utilized EBPs; however, most providers demonstrated limited understanding of best practice for treatment of challenging behaviors. Interventions were identified through an unsystematic process often marked by the provider moving from problem identification to intervention development without analyzing the problem. Interventionists noted many impediments to their service-delivery and consequently mentioned a number of improvements that could be made to Early Steps to facilitate better service delivery, including more professional development, more resources, and greater access to behavior consults.

This chapter includes a review of the findings along with a comparison of the results to extant literature where appropriate. Given that few researchers have investigated the service-

delivery of Part C interventionists, some of the findings reported from this study were unique. Following a review of the findings, implications for practice and for Early Steps administrators will be described. Finally, limitations to this study and directions for future research will be outlined.

Providers' Knowledge of EBPs for Young Children with Challenging Behaviors

All interventionists interviewed utilized EBPs for the children on their caseload who exhibited challenging behaviors. However, only two participants demonstrated appropriate use of EBPs by systematically identifying a function of behavior through an FBA or functional analysis, as described by Powell, Dunlap, and Fox (2006). This indicates providers' knowledge of EBPs for treatment of challenging behaviors is insufficient to effectively address the needs of the children served by Early Steps.

Providers demonstrated great insight into the limitations of their training background with regard to service-delivery for young children with challenging behaviors. The theme and subtheme "Insufficient Training" and "Shallow Toolbox" illustrate that many providers and/or their peers did not learn in their degree programs the appropriate skills needed to work with all children and families served by Early Steps. Many noted they learned behavioral techniques from trainings held by previous employers or parent trainings such as HOT DOCS. Moreover, interventionists noted they typically rely on many of the same strategies for children with similar behavioral presentations, thus creating a less individualized model of service delivery. These findings related to service-delivery are similar to those cited by Salisbury et al. (2010), who found that following professional development, Part C interventionists did not fully understand the services on which they were trained. Like the participants described by Salisbury et al. (2010), some of the participants in this study did not fully understand how to systematically

identify appropriate evidence-based interventions, despite undergoing trainings such as HOT DOCS (though, it should be noted that many interventionists have not participated in such trainings).

Though the participants noted insufficient training from their degree programs, most were confident in their understanding of treatment of challenging behaviors. Despite this confidence, it was clear most interventionists did not have a solid understanding of best practice for identifying and implementing appropriate evidence-based interventions by identifying the function of the behavior (Powell et al., 2006). This insufficient understanding of best practice was demonstrated through the themes of “ABA Confusion” and “Attention Only.” Five of the providers who were interviewed discussed that practices, including the use of an FBA as proposed by the Pyramid Model, that fall under the umbrella of applied behavior analysis are most appropriate for children with cognitive delays or neurological concerns. Interventionists who demonstrated confusion about behaviorism also noted that applied behavior analysis should only be used for children who exhibit severe behaviors such as self-injurious behavior or biting. Interestingly, one interventionist demonstrated her confusion about behaviorism by requesting more training related to PBS, but then noting that FBAs are inappropriate for young children. In addition, six of the interventionists insisted many or all behaviors, especially tantrums, occur as a way for children to access attention. Consequently, planned ignoring was one of the most often cited interventions utilized by providers. When providers were asked whether behaviors occur for other reasons besides attention, many noted that if a child is not seeking attention, then they likely have a more serious cognitive or neurological concern and should be referred for evaluation. This revelation of “Attention Only” is particularly concerning when considering there are three other functions of behavior that include gaining access to tangibles, escaping a task

demand, or gaining sensory stimulation. Thus, if a child's behavior is maintained by escaping a task demand, then planned ignoring alone may actually serve to reinforce the behavior.

Interventionists' knowledge of best practice for identifying EBPs was also rated on two 4-point scales (see Table 3). Providers were rated according to their knowledge and use of EBPs for their own practice, which was identified through interventionists' responses to questions about one of their current cases in which they were providing services for challenging behaviors. Providers were also rated on their knowledge and use of EBPs according to their analysis of hypothetical vignettes. Results of the ratings revealed only two interventionists earned a 3, the highest score, on all ratings of their general practices and vignettes. The other interventionists typically did not earn the highest marks because they did not systematically identify the function of the child's behavior in their description of their practice and/or in their analysis of vignettes. Though intervention strategies were often evidence-based, the scores earned by the majority of interventionists reinforce their insufficient training and confusion about behaviorism and attention seeking functions of behavior.

Taken together, the first three themes and the rating scales illustrate that providers' knowledge and use of EBPs for young children with challenging behaviors is limited. Interventionists do not have the training needed to address challenging behaviors, and as a result, they do not understand the significance of identifying a function for all pervasive behaviors, not just "extreme" behaviors, which are subjectively defined by each interventionist. Moreover, the interventionists do not demonstrate an understanding of the importance of connecting interventions to the function of behavior. The findings relayed through the first three themes and the rating scales are similar to those of Stahmer (2006) and Stahmer et al. (2005), who studied the use of EBPs among Part C providers for young children with ASD. Like the providers

described by Stahmer (2005), the interventionists in this study had significant variability in their training and experience with young children who have challenging behaviors. Moreover, like the interventionists studied by Stahmer (2006) and Stahmer et al. (2005), the interventionists who participated in this study reported using EBPs; however, the quality of such service-delivery was inconsistent, given that interventions were rarely identified systematically. Thus, the notion that Part C interventionists generally have a limited understanding of EBPs has been extended from service-delivery for young children with ASD to young children with challenging behaviors (Stahmer, 2006; Stahmer et al., 2005).

Differences Between Licensed and Non-Licensed Providers

With regard to differences between licensed and non-licensed providers, results from the rating scales (see Table 3) reveal that the licensure status designated by the Early Steps organization does not necessarily translate to systematic use of EBPs for EIs compared to ITDSs as hypothesized. However, licensure status in terms of training background does reveal a difference among providers with regard to knowledge and use of best practice for identifying EBPs for young children with challenging behavior. There were only two interventionists (one EI and one ITDS) who earned the highest scores on all the ratings. These providers developed interventions informed by the function of the child's behavior, and both providers had a graduate-level degree with a focus on behavior.

Other EIs and ITDSs who did not earn full marks did not have a training background that reflected a behavior analytic focus. These interventionists took some action steps towards identifying a function of behavior such as asking questions about the antecedents or consequences of the behavior, observing the child in multiple scenarios, or asking other context-related questions; however, they either did not use this information to identify a functionally

based intervention, or they did not systematically use a multi-method, multi-informant approach to determine a function. Meanwhile, some interventionists took no action steps towards identifying a function of behavior with their own cases and with the vignettes.

One exception to the rating scales was an EI who was trained from a developmental/clinical perspective. This interventionist systematically identified interventions, but they were based on best practices according to her training background, and not best practices from a behavioral perspective. She noted the research support for her strategies and the theoretical framework from which she derived her services. Thus, this interventionist did demonstrate understanding of systematic use of EBPs, but not from a behavioral perspective. Other interventionists did not fall into this exception because they did not describe an alternative framework from which they provide services.

Consistent with the findings of Stahmer (2006), the interventionists interviewed as part of this study had variability in their experience and training regarding service provision for young children with challenging behaviors. It was initially hypothesized that licensure status of EI versus ITDS would result in differences in the types of services rendered; however, a training background related specifically to behavior made the difference in terms of the quality and type of services received by children served by Early Steps.

Interventionists' Decision-Making Process

As described in response to research question one, interventionists' method for identifying interventions is not systematic. The themes "Straight to Strategies" and "Self-Guided Research" shed light onto the specifics of the decision-making process of providers.

Seven of the ten interviewees fell into the theme, "Straight to Strategies," for either their own service-delivery or for their analysis of vignettes. These interventionists made decisions

about services based on little or no information about the function of the child's behavior. Thus, interventionists often moved from problem identification to intervention implementation without regard to factors maintaining the behaviors. This type of service-delivery is likely related to providers often attributing behaviors to attention seeking functions. As a result, many behaviors that are topographically similar are treated with similar strategies, which indicate less individualized service-delivery. Again, these findings are consistent with those reported by Stahmer (2006) and Stahmer et al. (2005), who found Part C interventionists employ EBPs for young children with Autism, but have little understanding of the appropriate use of EBPs. Therefore, the theme "Straight to Strategies" extends the literature demonstrating that Part C interventionists have a shallow understanding of evidence-based decision-making processes for young children with challenging behaviors.

In addition to providers moving "Straight to Strategies," four interventionists noted they engage in their own research in order to problem-solve difficulties they are experiencing with a case. Some providers noted they engage in research for their own self-interest, while others described that they engage in research because they are not receiving enough support from their service coordinators. Interventionists noted reading books or researching on the Internet as methods of accessing additional tools and resources for services. This "Self-Guided Research" contributes to some providers' decision-making process, especially for particularly challenging cases. The finding that many interventionists engage in their own research is unique to the literature surrounding Part C interventionists.

Current Strategies Used to Address Challenging Behaviors

The current intervention strategies utilized by providers can be found in Table 4. All strategies are supported by research (Dunlap et al., 2006); however, the monitoring of response

to intervention for these strategies is poor. Unsurprisingly, planned ignoring and differential reinforcement of alternative behaviors are the top two strategies used by interventionists, presumably because many providers believe the majority of behaviors occur as a function of attention. A third strategy frequently used by interventionists is positive commands. Additional strategies were not noted with great frequency across interventionists. When asked where providers learned such strategies, they often responded with one or more of the following: previous training, clinical experience, undergraduate/graduate experience, or “common sense.” Two interventionists noted training in the Conscious Discipline program. As a result, these interventionists selectively chose some strategies from the program. Another interventionist used some strategies from Communicating Partners, an evidence-based program she found through her own research. Others learned strategies through PCIT or HOT DOCS training. This method of selectively identifying interventions is similar to the findings described by Stahmer et al. (2005), where interventionists used some strategies common to evidence-based programs for young children with ASD.

Though interventions employed by providers are evidence-based, the extent to which they are monitored using objective data is poor. Thus, the theme “Problematic Progress Monitoring” extends the answer to the research question regarding the current strategies in use by interventionists. Nine of 10 interventionists noted they did not collect much, if any, quantitative data in order to monitor response-to-intervention. This is not surprising, given that interventionists are only required to report progress-monitoring data once every quarter. Providers revealed they use parent report and/or weekly session observation to determine the efficacy of the supports in place, while noting the anecdotal progress in their case notes. These findings related to the strategies utilized by interventionists and their progress monitoring data

extend the limited research currently available regarding the types of interventions in use by Part C providers.

Needs of Providers

When asked about their needs as providers, participants noted a wide range of barriers to service delivery that are characterized by the themes “Systems-Level Issues,” “IFSP Limitations,” “IFSP Constraints,” “Advocacy,” and “Parental/Caregiver Buy-In.” Interventionists addressed these issues by suggesting a number of solutions, including “IFSP Identification,” “Clear Communication,” “Consult Accessibility,” “Increased Training,” and “Supplementary Resources.”

The theme, “Systems-Level Issues,” is a broad category of difficulties described by five interventionists and that generally refers to the implementation of the Early Steps model. One of the problems with the adaptation of the Early Steps model is interventionists perceive that they only possess the ability to officially implement one intervention, which leaves some children without the additional services they might need to make progress. Additional systems-level issues include screening practices that are insensitive to challenging behaviors; the “generalist” approach applied by Early Steps, where an interventionist can be referred a range of cases unrelated to their training background; and a lack of a team approach, where each child does not receive a range of consults depending on their needs. The barriers related to the Early Steps model in this study confirm some of the “wishes” of the Part C interventionists interviewed by Campbell and Halbert (2002). More specifically, Campbell and Halbert (2002) found that interventionists described difficulties with provision of services, where children were not receiving the number of services they needed to successfully meet their goals. Participants in the

Campbell and Halbert (2002) study also noted a greater need for a team approach in which providers would work together to create a multidisciplinary approach to service delivery.

Nine of the providers additionally described “IFSP Limitations” as a theme and three described “IFSP Constraints” as a subtheme when discussing barriers to service delivery. Confusion about the IFSP occurs when a child is referred for services (commonly language), but behavioral concerns are not noted, despite the behaviors being pervasive. Interventionists often learn about challenging behaviors during their first session, which leaves providers to re-evaluate the types of strategies they will implement. Because behaviors contribute to a child’s delays, interventionists feel a need to address them; however, providers also feel constrained in their ability to do so because behavioral goals are not written on the IFSP. As a result, a child could make great social-emotional gains that would prepare them to meet their language or other goals, but it would appear the child made no progress if only the language or other goals on the IFSP are measured. The findings from this study that behaviors are typically not noted as on the IFSP are incongruent with what would be expected based on the literature, given that children with language delays are significantly more likely to have challenging behaviors compared to children without language delays (Kaiser et al., 2000| Long et al., 2008; Ross & Weinberg, 2006). The ideas regarding the IFSP reported by the interventionists are also incongruent with the additional considerations for best practice published by Fox et al. (2002). In particular, Fox et al. (2002) suggested interventionists serving young children should focus on all barriers faced by families and provide individualized services on a continuum, even if those additional barriers are not related to the primary referral concern. However, difficulties abiding the IFSP seem to make it difficult for interventionists to engage in the practices noted by Fox et al. (2002).

Although many providers suggested behavior consults were difficult to obtain, three interventionists were adamant that finding a consult was more related to “Advocacy” for oneself than unavailability of consults. These interventionists discussed having little difficulty attaining help or consultation when needed; however, they also implied others do not appropriately use resources. Interventionists noted they do not abuse their access to consults by requesting support only for the most severe cases that they cannot problem solve on their own. One EI who would act as the consultant noted further that it is the job of interventionists to advocate for themselves and seek her support. The theme of “Advocacy” created an interesting dichotomy between the interventionists, as some described extreme difficulty accessing support, despite advocating for themselves, and others noted advocacy and trustworthiness were the key to unlocking additional resources. The finding that interventionists need to be advocates for themselves has not been cited in the literature thus far, although, other researchers have found many interventionists have a need for greater support and a greater team-based approach to service delivery (Campbell & Halbert, 2002).

A final obstacle to provision of effective services is “Parental/Caregiver Buy-In.” Nine of the interventionists noted that some parents frequently do not buy-in to behavioral interventions and strategies, especially if they are not noted on the IFSP. In addition, parents may deny the existence of challenging behaviors, or one parent may understand the need for behavior interventions, while the other parent does not. Any of these problems related to buy-in result in inconsistent implementation of interventions. Moreover, providers noted they have no way to monitor whether interventions are actually implemented over time when families have little buy-in. Issues with consistency in intervention implementation described by the participants in this study are consistent with the findings of other researchers, as Part C interventionists interviewed

by Campbell and Halbert (2002) discussed significant resistance from families with regard to participation during sessions and implementation of recommendations outside the weekly home visits.

The results of this study with regard to barriers faced by Part C providers have reinforced or extended previous work. In addition to describing obstacles to service-delivery, interventionists brainstormed solutions to many of the impediments to their identification and implementation of behavior interventions. One proposed solution to the themes “Systems-Level Issues,” “IFSP Limitations,” and “IFSP Constraints” was better “IFSP Identification,” where challenging behaviors would be specifically identified and written into the IFSP goals. Interventionists suggested a number of methods for improving the IFSP process, including using brief screeners to identify elevations in challenging behaviors; broadening the IFSP goals; or asking parents more directly about behaviors during evaluation, noting that challenging behaviors are something that can be addressed as part of the service-delivery. Identification of challenging behaviors on the IFSP would alleviate “IFSP Limitations,” as interventionists would be prepared to address such problems prior to entering the home. In addition, broadening IFSP goals would result in fewer “IFSP Constraints,” as interventionists would have more freedom to address the range of concerns each child presents, as recommended by Fox et al. (2002). Moreover, “Systems-Level Issues” would partially be resolved through better “IFSP Identification” because behavior rating scales would be used more frequently, which would be sensitive to social-emotional gains. Although Part C interventionists who participated in other studies did not note difficulties with the IFSP process explicitly, the problems noted by the providers in this study are pervasive and significantly affect the quality of services delivered. Campbell and Halbert (2002) did find, however, that interventionists in their study were

interested in Part C administrators creating better means for their children to meet their goals, which is similar to the suggestions provided by providers at Early Steps.

Another improvement suggested by participants was for Early Steps to have “Clear Communication,” which would reduce some of the confusion about the model espoused by Early Steps and noted as part of “Systems-Level Issues.” More specifically, interventionists requested a better “feedback loop” from providers to administration so barriers faced by interventionists are better understood and rectified by the Early Steps organization. In addition, participants requested more mandatory meetings regarding important matters such as policy changes along with greater communication about additional services available to families and the expected timeline for receipt of services. Ultimately, better communication among Early Steps administration and providers would result in a better translation of policy to practice, as providers would gain a greater understanding of the Early Steps model and administrators likewise would have greater awareness of the feasibility of policies. Introduction of clearer communication has not been described by Part C interventionists in other studies, thus, making this finding unique to the literature.

As noted above, many providers experience difficulty obtaining a behavior consult, despite some interventionists purporting that advocacy is key. Though interventionists did not initially describe difficulties with behavior consults as a problem they were facing with their current service-delivery, they did note that having more access to behavior consults would help them improve their work. Thus, “Consult Accessibility” became a noted problem and solution for eight participants. Even those who did not have difficulty accessing supports suggested more consultation in general in order to increase accountability. Interventionists described additional consultation with behavior specialists would not only be helpful for problem-solving difficult

cases, but it would also be helpful for improving upon their current service-delivery by observing an “expert” engage in best practice. In addition, providers reported that greater case consultation with peers would help to problem-solve and brainstorm solutions to barriers and/or a child’s non-response to intervention. As a whole, interventionists requested greater consultation in general, which included consultation with specialists and peers. This type of collaboration with peers would help to resolve some of the concerns regarding the “generalist” approach noted as part of the “Systems-Level Issues” and would facilitate a greater sense of teaming among Early Steps interventionists. The Part C providers interviewed by Campbell and Halbert (2002) also reported the same notion of greater access to supports, as they described a need for increased provision of services and for more of a team approach to service-delivery.

Participants overwhelmingly requested “Increased Training,” with nine providers asking for additional and accessible professional development opportunities in a number of areas. Interventionists suggested professional development related to psychology, behavior, and PBS specifically. They also discussed a need for more training related to facilitation of parent buy-in to interventions along with culturally responsive service-delivery. Providers also suggested Early Steps facilitate more accessible training during the days and/or times that interventionists have the greatest availability. These include Fridays and the hours that are typically reserved for naps for infants and toddlers. Providers requested trainings that are created specifically for interventionists at Early Steps and that such trainings be delivered both by practitioners who have a realistic perspective and doctoral-level psychology students who have access to the freshest evidence-based intervention strategies. A final suggestion made by interventionists with regard to professional development was for Early Steps to offer more opportunities for parent training. The suggestions for professional development would relieve interventionists’ concerns

with regard to “Parental/Caregiver Buy-In.” In addition, specified professional development would resolve the skills deficits related to systematic service-delivery for challenging behaviors that were noted throughout the themes “Insufficient Training,” “Shallow Toolbox,” “ABA Confusion,” “Attention Only,” “Straight to Strategies,” and “Problematic Progress Monitoring.” The issue of limited professional development opportunities noted by interventionists was a concern already described in the limitations to Florida Early Steps (see literature review), thus, the suggestions provided by interventionists reinforced the relative deficits previously noted. This concern is unsurprising, given that many other Part C initiatives in other states do not enact professional development for interventionists (Bruder et al., 2009). In addition, requests for increased professional development by Part C providers is common, as Campbell and Halbert (2002) found Part C interventionists were in need of more specialized training. However, unlike the participants in this study, providers interviewed by Campbell and Halbert (2002) noted they needed fewer mandatory trainings. This discrepancy is likely related to the differential policies among Part C programs across states (Stahmer & Mandell, 2007). Requests of participants in this study were also consistent with best practice related to cultural competence described by Fox et al. (2002). These suggestions for specific training opportunities are particularly important to heed, as Campbell and Sawyer (2009) found Part C interventionists are more likely to make changes to their service-delivery if the professional development is consistent with their beliefs.

Finally, participants reported a need for “Supplementary Resources,” including parent handouts, pamphlets, and documents detailing research-based strategies. More specifically, interventionists requested a behavioral notebook or library of resources from which to pull. Included in these types of resources would be handouts made specifically for parents and practitioners. Some interventionists discussed parent handouts including important information

such as the implications of untreated challenging behaviors and the importance of early behavioral prevention and intervention. Other interventionists suggested greater accessibility to parent handouts that detail available community resources, which would improve the wraparound service-delivery provided by interventionists. Providing supplementary resources could help to resolve concerns related to “Parental/Caregiver Buy-In” and possibly some of the concerns related to the unsystematic nature of service-delivery described through the themes, “Insufficient Training,” “Shallow Tool Box,” “ABA Confusion,” “Attention Only,” and “Straight to Strategies.” Previous researchers have not noted requests for additional resources by Part C providers, making this finding unique.

Implications for Practice

The results of this study have provided a number of broad implications for organizational practice at Early Steps. At the systems level, Early Steps administrators should consider revising the assessment and referral process. According to interventionists, the “generalist” approach taken by Early Steps may not always be effective because interventionists with specific training backgrounds cannot serve the range of children referred to them by Early Steps. As a result, it may be more effective and efficient to refer cases according to providers’ training backgrounds in addition to their service area. In addition, providers suggested Early Steps assess behavioral concerns during initial evaluation so change over time with regard to behaviors can be measured and validated.

The unsystematic nature of service delivery along with suggestions for improvement from the needs assessment suggest a major need for greater provision of professional development at Early Steps, which is currently non-existent. Providers described a variety of training needs both for practitioners and parents, which include more information regarding

research-based practices for behaviors and more information regarding the facilitation of parent buy-in. The needs assessment also helped inform the content of professional development that interventionists would find most useful. In addition, the rating scale applied to providers' knowledge and use of EBPs revealed a serious need for psychoeducation and training surrounding best practices for young children with challenging behaviors. In particular, professional development should focus on the importance of identifying functional interventions and progress monitoring families' response-to-intervention.

The needs assessment also shed light onto specific difficulties interventionists face with regard to access to resources. Providers relentlessly requested greater access to behavior consults and specific resources that would be helpful to providing behavior supports to children birth to three. Thus, Early Steps should consider providing more opportunities for interventionists to request and receive help. In addition, Early Steps should consider disseminating consult options more widely, perhaps by devising a list of behavior specialists that are available by service area. Further, Early Steps should consider creating and disseminating a document that details best practice for behavior interventions with evidence-based functional interventions (the "library of resources" requested by some providers). Early Steps might also benefit from the creation and dissemination of more practitioner-friendly and parent-friendly handouts that would facilitate more systematic practices and parent buy-in.

Clear communication is another notable implication provided by this study. It became clear through data collection that interventionists saw a need for greater communication between administrators who make decisions and providers who enact policies. Specifically, Early Steps should consider creating a better "feedback loop," where the needs of providers and realities of enacting policies are directly communicated to administrators and then problem-solved. In

addition, providers saw a need for better dissemination of policy changes, as incorrect information sometimes circulates through Early Steps when important information is delivered by word of mouth.

Early Steps should finally consider revising the IFSP process, as this was a major point of frustration for interventionists. In particular, interventionists noted the IFSP often does not include behaviors, which then creates problems with regard to service-delivery. Early Steps should consider specifically assessing challenging behaviors in the referral process, especially for concerns that often co-occur with challenging behaviors such as language. IFSP goals should then be broadened or should include behavioral targets. This change in IFSP goals would appropriately address concerns of providers related to meeting goals while also meeting the needs of the client. A change in IFSP goals would also potentially help facilitate greater parent buy-in, as it was noted that caregivers are often resistant to behavior supports because they are not a goal on the IFSP.

Contributions to the Literature

This study has provided several important contributions to the literature. First, it was the first evaluation (to this researcher's knowledge) of the Florida Early Steps interventionists' knowledge and use of EBPs. The results gained from this study helped to inform organizational policy for Early Steps. In particular, results indicated a need for greater training opportunities, more resources and consults, clearer communication in general, and clearer goals and objectives provided on the IFSP. The results from this study have also provided a basis for a statewide evaluation of interventionists' needs along with their use of best practices and EBPs for all children served by Early Steps.

Second, this was the first study (to this researcher's knowledge) to evaluate IDEA Part C providers' knowledge and use of EBPs for young children with challenging behaviors in particular. Knowledge gained from this study has constituted a need for further evaluation of the training and professional development of the providers employed under IDEA Part C in general, especially given the negative outcomes associated with untreated challenging behaviors.

A final contribution of this study was the depth of understanding of interventionists' processes for identifying treatments, difficulties implementing treatments, and needs for delivering effective services to clients. The qualitative design with the semi-structured interview and vignettes was particularly impactful with regard to fully understanding interventionists' conceptualizations of treatment of young children with challenging behavior. This understanding could not have been achieved through a simple survey, as the interview and vignettes resulted in an authentic discussion of what interventions are chosen, why they are chosen, how they are monitored, and where interventionists learned of such strategies. Moreover, the needs assessment taken as part of the interview shed light onto the real problems faced by interventionists in the field and their perspectives on solutions to such problems. Not to mention, Part C interventionists in other studies have been reported to have similar knowledge and use of EBPs and similar needs as the providers in this study, which lends credence to the present results.

Limitations

There were several notable limitations with regard to this study. First, the small and homogenous sample decreased the generalizability of the results. Specifically, the small subset of interventionists who participated came from the same service region and were interviewed regarding a subset of children on their caseload. As a result, findings cannot be extended to other regions or cases and cannot speak to IDEA Part C services as a whole.

Despite the incentive offered for participation, a second limitation was the non-randomly selected sample. Because the sample was a group of volunteers, the ideas that emerged from the data may not be representative of the spectrum of interventionists who serve Early Steps. Non-representation may have occurred because only interventionists who felt competent in their ability to serve young children with challenging behaviors volunteered. This competency was evidenced when interventionists were asked to reflect on the “biggest gap in their understanding of treatment of challenging behaviors.” None of the interventionists reported any misunderstanding of how to effectively treat challenging behaviors, although, many did reflect on areas in need of improvement. Moreover, some interventionists discussed that other providers’ service-delivery regarding challenging behaviors is subpar because those providers do not have the skills to handle such cases. For this reason, the findings of this study may be an overestimation of the knowledge and use of EBPs among Part C interventionists.

A third limitation to this study was the potential for interventionists to be dishonest due to feelings of evaluation. To buffer this limitation, a volunteer interventionist helped to create an interview protocol that was not threatening. A second way this limitation was minimized was through the pilot interviews, where the researcher asked for feedback regarding the interview questions and the researcher’s interviewing skills. Feedback from the pilot interviews resulted in the researcher explaining to following participants that she would ask many follow-up questions in order to gain a thorough understanding of the provider’s practice. Another way this limitation was buffered was through the structure of the protocol. Because the questions and vignettes were designed to ask the interventionist to identify the process of intervention identification and implementation for challenging behaviors, the interventionist could not be dishonest about knowledge of EBPs. However, there is a possibility that interventionists understood EBPs, and

thus, responded appropriately, even if they did not use EBPs. Even if interventionists responded in ways they felt were socially desirable, the results of the study still indicated the majority of interventionists are not engaging in best practice for identifying and implementing evidence-based interventions for young children with challenging behaviors. Finally, ITDSs and EIs involved in this project were assured this researcher is outside of Early Steps, thus, minimizing feelings of evaluation that may have led to dishonesty.

A final limitation of this study was the evaluation criteria utilized. The scoring rubrics used to rate interventionists' knowledge and use of EBPs was centered on elements of behaviorism and the Pyramid Model. Although use of the Pyramid Model is generally considered best practice for identification and implementation of interventions for young children with challenging behaviors (Fox & Smith, 2007), this does not mean other evidence-based frameworks and methods are inappropriate. This was especially evident with regard to the evaluation of Caitlin, who used a developmental framework to identify and develop interventions for her clients.

Directions for Future Research

The results from this study have provided sufficient grounds for further research regarding the practices of interventionists at Early Steps. Future researchers should consider a more comprehensive evaluation of interventionists, including a larger sample of providers and a wider range of referral concerns. In particular, a program evaluation of Early Steps at the regional and state level would provide the most valuable information regarding areas of strength and weakness for the organization.

Additionally, it would be interesting for future researchers to evaluate interventionists' practices for areas in which they have an educational background and training compared to areas

in which they do not have extensive training, as Early Steps interventionists provide services to a range of children with many referral concerns. Information from such a study could inform future referral policies in order for children to receive the best services the organization has to offer. In addition, future researchers might consider piloting a multidisciplinary consultation model in which children receive a combination of services from a team of providers that are uniquely matched to the child's needs, rather than a "generalist" who may or may not have training in the areas in which the child needs support.

Future researchers should also consider implementing specified training surrounding best practices for identifying and implementing appropriate behavior interventions, while monitoring the usage of professional development in actual practice as was observed by Campbell and Halbert (2002). This would shed light onto further areas in need of improvement as well as issues related to feasibility of practices imparted through professional development. In addition, future researchers should consider evaluating the extent to which providers are engaging in culturally responsive practices that are family-centered. This would provide better understanding of how well interventionists utilize the Part C model, which is centered on provision of services in the natural environment (U.S. Department of Education, 2014).

In order to gain an even deeper understanding of interventionists' service delivery, future researchers should interview providers over multiple sessions in order to develop greater rapport. By doing this, future researchers will possibly acquire more candid responses from providers regarding intervention identification and implementation. This could then lead to a greater understanding of the strengths and weaknesses of Part C, which would result in more meaningful change within the Part C organization.

A final area in need of research is in relation to the effectiveness individual providers have on the children they serve. The extent to which interventionists have a meaningful effect on their families is currently unknown, as progress monitoring data are only collected once every three months and most interventionists do not monitor the efficacy of their interventions specifically (Children's Medical Services Early Steps Policy Handbook and Operations Guide, 2012). Future evaluators should consider intentional progress monitoring of the efficacy of interventions for children and families.

Summary

Challenging behaviors in young children birth to five are a pervasive issue, occurring at a rate of 10-20% (Campbell, 1995). When left untreated, challenging behaviors have significant ramifications for young children, including poor family, teacher, and peer interactions; lowered academic success and school dropout; poor employment outlooks; and a general pattern of antisocial behavior in adulthood (Fox & Smith, 2007). Best practice for treatment of young children with challenging behaviors is service delivery through a three-tiered system known as the Pyramid Model (Fox & Smith, 2007). This model is derived from the broader PBS model (Dunlap & Conroy, 2003). The third and most intensive tier of service delivery is reserved for young children with significant social-emotional difficulties (Fox & Smith, 2007). At the third tier, an intervention is developed following the careful identification of the function of behavior through a functional behavioral assessment, which entails using a multi-method, multi-informant approach to identify antecedents and consequences that reinforce the behavior (Newcomer & Lewis, 2004). This function is used to inform intervention development, which can include assessment-based strategies, teaching strategies, antecedent-based interventions, multi-component interventions, and family-centered practices (Dunlap et al., 2006).

Children who have significant social-emotional impairment are most commonly identified through venues such as parent referral, the healthcare system, or the child's daycare (Powell et al., 2003). Children birth to three who are identified as needing additional supports may access them through the federally funded IDEA Part C, which provides early prevention and intervention services for children who are at-risk for having or who have already been identified as having a developmental delay (United States Department of Education, 2014). In Florida, the Part C program is known as Early Steps. Unfortunately, few researchers have examined the types of services delivered by Part C interventionists, especially those in Florida. The few researchers who have studied Part C programs have found that they provide little professional development (Bruder et al., 2009), they have inconsistent policies across states (Stahmer & Mandell, 2007), and the interventionists have limited knowledge and use of EBPs (at least for young children with Autism; Stahmer, 2006; Stahmer et al., 2005). The paucity of information available about policy and practice among Part C providers, especially those employed by Florida Early Steps, prompted the current study.

Through qualitative interviews and a subsequent thematic analysis that included a systematic rating system, interventionists at Early Steps were evaluated regarding their knowledge and use of evidence-based practice for young children with challenging behaviors. In addition, interventionists were given a needs assessment as part of the interview to identify areas in which they needed more support from Early Steps. As a result, 15 themes and two subthemes were identified. Although providers described using a number of EBPs, their interventions were marked by an unsystematic service-delivery characterized by the themes "Insufficient Training," "Shallow Toolbox," "ABA Confusion," and "Attention Only." Providers often described their method of intervention identification unsystematically as well, expressing that they moved

“Straight to Strategies” before identifying more information related to the function of the child’s behavior. Moreover, interventionists frequently noted they do not engage in frequent progress monitoring of children’s response to intervention. Many interventionists do, however, take time to research more intervention strategies through the Internet or other text resources. In relation to the needs assessment, interventionists described a number of problems and solutions for Early Steps. Themes related to areas of improvement for Early Steps included “Systems-Level Issues,” “IFSP Limitations” and “IFSP Constraints,” “Advocacy,” and “Parental/Caregiver Buy-In.” Providers spent time brainstorming solutions to these barriers and noted the Early Steps organization could be improved through the themes “IFSP Identification,” “Clear Communication,” “Consult Accessibility,” “Increased Training,” and “Supplementary Resources.” The results of this study should be used to improve the system of Early Steps. Results should also be used as a platform for future research into the policies and practices enacted by Part C and its employees.

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Appendices

Appendix A: Interview Protocol Questions

Interview Protocol Questions

Interview Question		Affiliated Research Question
Introduction	Tell me a little about your background in serving young children.	Introductory rapport-building question
Question 1	What do challenging behaviors in young children look like to you?	Preliminary
Question 2	How many children (approximately) do you serve who have challenging behaviors?	Preliminary
Question 3	Can you describe one such case?	Preliminary
Question 4	How did you learn about the behavior in that case?	Preliminary
Question 5	What additional information did you gather about the behavior?	1
Question 6	Please describe the intervention you chose for the child and why.	1, 3, 4
Question 7	Are you experiencing any challenges implementing the intervention, and if so, what are they?	5
Question 8	How do you think Early Steps can help you better problem-solve these difficulties?	5
Question 9	Do you believe the intervention is effective? How do you know?	1, 3
Question 10	What do you perceive to be the biggest gap in your understanding of treatment for young children with challenging behaviors?	5
Question 11	What can Early Steps do to alleviate these concerns?	5

Appendix B: Interview Protocol Vignettes

Vignettes

Number	Vignettes
Instructions	I am going to give you some scenarios to read. After each one, please describe to me how you would identify and develop an intervention for the parent and child. How do you know the intervention is working? If it is not working, what are your next steps?
Vignette 1	Joey is a 27-month-old boy who refuses to sit and listen to stories. Refusal looks like walking away from the activity and audibly crying.
Vignette 2	Kelly is a 30-month-old girl who physically harms other people or animals. Physical harm looks like picking an object up in one or two hands and thrusting the object with force in the direction of people or animals. In addition, physical harm may look like extending the arm with an open palm or closed fist and making physical contact with another person or animal, or extending the leg back and moving it forward to make contact with the person or animal. Finally, physical harm may include biting, which is defined as making contact with any part of another person's body with an open mouth.
Vignette 3	Diego is 20-month-old boy who tantrums. Tantrumming looks like laying down on his back or stomach on the floor and refusing to get up, crying for at least one minute, clenching his hands into fists and hitting the floor with them, or extending his legs up and down while on the floor. In addition, when an adult physically moves Diego to a chair, he sobs and audibly cries throughout the 80% of the sitting.
Vignette 4	Davianna is 36-month-old girl who engages in self-injurious behavior. Self-injurious behavior looks like thrusting her head back and moving it forward into the wall or the floor with enough force to make an audible sound against the object.

Appendix C: Coding and Scoring Guidelines

Scoring Guidelines and Codebook for

An Evaluation of IDEA Part C Interventionists' Knowledge and Use of Evidence-Based Practices for Young Children with Challenging Behavior

Sarah E. Dickinson

General Scoring

The general scoring guidelines are applied to the interventionist's chosen strategies for the child they discussed in the interview. The scoring guideline lies on a 4-point scale:

0: No knowledge or use of evidence-based practices

1. The interventionist does not identify the function of the child's behavior (i.e., the antecedents and consequences of the behavior)
2. The function of the behavior does not inform the intervention strategies
3. The intervention strategies are ALL not evidence-based

1: Little knowledge or use of evidence-based practices

1. The interventionist does not identify the function of the child's behavior (i.e., the antecedents and consequences of the behavior)
2. The function of the behavior does not inform the intervention strategies
3. All or some of the intervention strategies are evidence-based

2: Partial knowledge or use of evidence-based practices

1. The interventionist partially identifies the function of the behavior (i.e., the antecedents and/or consequences of the behavior), but the process is not systematic
2. The partially identified function may or may not inform some of the intervention strategies (i.e., the antecedent and/or consequence is used to inform the intervention strategies)
3. All or some of the intervention strategies are evidence-based

3: Complete knowledge and use of evidence-based practices

1. The interventionist fully identifies the function of the behavior (i.e., the antecedents and consequences of the behavior)
2. The function of the behavior informs the intervention strategies chosen
3. All the intervention strategies are evidence-based

Vignette Scoring

The vignette scoring guidelines are applied to the interventionist's interpretation of the four vignettes presented to him/her. The scoring guideline lies on a 4-point scale:

N/A: Not applicable

1. The interventionist indicated the behavior concern in the vignette was either not developmentally appropriate or the interventionist indicated they would refer out to a behavior specialist because the behavior concern was out of their scope of service-delivery

0: No knowledge or use of evidence-based practices

1. The interventionist did not indicate a need for more contextual information about the behavior to identify a function
2. The interventionist delved straight into recommended strategies for the specific behavior presented
3. The strategies suggested by the interventionist are not evidence-based

1: Little knowledge or use of evidence-based practices

1. The interventionist did not indicate a need for more contextual information about the behavior to identify a function
2. The interventionist delved straight into recommended strategies for the specific behavior presented
3. The strategies suggested by the interventionist are evidence-based

2: Partial knowledge or use of evidence-based practices

1. The interventionist indicated a need for more information about the antecedents or consequences
2. The interventionist did not provide recommendations specifically related to the function (antecedents or consequences) of the behavior
3. The strategies suggested by the interventionist are evidence-based

3: Complete knowledge and use of evidence-based practices

1. The interventionist indicated they would need more information to identify a function (antecedents and consequences; contextual information) before proceeding
2. The interventionist provided recommendations related to a proposed function of behavior
3. The strategies suggested by the interventionist are evidence-based

Note: Bullets 2 and 3 are not needed to score a 3 as long as the interventionist noted they needed more contextual information to identify a behavioral function.

General Themes and Subthemes:

1. Insufficient Training
 - a. Shallow Tool Box
2. ABA Confusion
3. Attention Only
4. Straight to Strategies
5. Self-Guided Research
6. Problematic Progress Monitoring

Needs Assessment Themes:

1. Systems-Level Issues
2. IFSP Limitations
 - a. IFSP Constraints
3. Advocacy
4. Parental/Caregiver Buy-In
5. IFSP Identification
6. Clear Communication
7. Consult Accessibility
8. Increased Training
9. Supplementary Resources

Theme:

Insufficient Training

Interventionists describe not having the training needed to meet the needs of all children they serve. Some interventionists note that prior to specific training such as HOT DOCS or PCIT, they did not have the appropriate skills to serve children with challenging behaviors. Other interventionists note that other providers do not have the training needed to effectively treat challenging behaviors.

Subtheme:

Shallow Tool Box

Interventionists note they do not have enough strategies and need more strategies to effectively work with their clients. This can include a shallow tool box in terms of intervention strategies or in terms of strategies to facilitate parental/caregiver buy-in

Theme:

ABA Confusion

Interventionists indicate ABA strategies should be used only for children who have neurological or cognitive concerns or for specific cases of severe behavior such as biting or self-injurious behavior. Some interventionists conceptualize behaviorism only as a way to address attention-seeking behavior through planned ignoring (i.e., interventionists do not understand there is more to behaviorism than the function of attention). Alternatively, some interventionists indicate stark opposition to ABA (such as the validity of an FBA for young children), while asking for more training in strategies based in ABA.

Theme:

Attention Only

Interventionists conceptualize most or all behaviors occurring as a result of an attention-seeking function. Interventionists may indicate a child's behaviors are related to neurological or cognitive concerns if a child does not engage in behaviors to access attention or if strategies targeted towards attention-seeking behaviors (e.g., planned ignoring) are unsuccessful. Interventionists may also conceptualize specific behaviors such as tantrums or self injury as only attention-seeking.

Theme:

Straight to Strategies

Interventionists jump from problem identification (i.e., a challenging behavior is present) to implementation of specific strategies like planned ignoring and differential reinforcement of

alternative behaviors. Some interventionists ask some questions about the context of the behavior (e.g., antecedents to the behavior) but do not systematically use this information to inform the intervention strategies. This theme is particularly present throughout analysis of vignettes.

Theme:

Self-Guided Research

Interventionists note they stay up-to-date on practices by identifying new strategies through their own Internet research or literary (i.e., books) research.

Theme:

Problematic Progress Monitoring

Interventionists do not monitor children and families' response to intervention through objective measures and analyses. Progress monitoring tools include observation during sessions and parent report of reductions of challenging behaviors.

Theme:

Systems-Level Issues

Interventionists describe issues with the implementation of the Early Steps model. Some interventionists note that the model, especially with regard to only applying one intervention, is taken too literally, which can become problematic. Particular issues include concerns with screeners utilized by Early Steps, difficulties with the "generalist" approach applied by Early Steps, and/or problems with the seeming lack of a team approach to children's concerns. A specific issue with the screeners includes, but is not limited to, insensitivity to behavioral problems and social-emotional growth over time. Difficulties with the generalist approach include, but are not limited to, ITDSs having little training to handle all the developmental concerns presented on their caseload. Some interventionists also note that there is not enough of a team approach taken with cases, wherein many providers would provide consultation for a case. Issues with the lack of team approach lead to poor service-delivery, as the child does not receive a multi-dimensional intervention. Note: if a participant mentions of any or all of these concerns with regard to the Early Steps model would warrant a code of Systems-Level Issues.

Theme:

IFSP Limitations

Interventionists note the IFSP includes little, if any, information about behavioral problems present, leaving the interventionist to learn about the behavior when they first visit the home or daycare. The scarce amount of information provided to the interventionist on the IFSP makes it difficult for the interventionist to prepare interventions.

Subtheme:

IFSP Constraints

Because behaviors often are a major contributor to a child's delays, particularly for language acquisition, interventionists must depart from the goals on the IFSP to first address behaviors. However, some interventionists feel constrained in their ability to address behaviors and also meet other goals related to the primary referral concern because behavioral issues are not noted on the IFSP.

Theme:

Parental/Caregiver Buy-In

Parents or caregivers do not or are not anticipated to "buy-in" to behavior interventions. This is sometimes because they were not identified as an area of concern during evaluation. Other times, parents or caregivers deny a behavior problem exists or purport they have tried all the strategies suggested by the interventionist. Little buy-in leads the caregiver to be resistant or to refuse to implement behavioral strategies, which in turn leads to issues with consistency and follow through with the recommendations provided by the ITDS or EI. Some interventionists note that they have no way of knowing whether the intervention is implemented consistently. This could also include one parent being prepared to implement recommendations, while the other parent is not.

Theme:

Advocacy

Interventionists indicate their ability to obtain behavior consults is a result of their own self-advocacy and trustworthiness in their genuine need for help from a consult. Some interventionists also indicate it is the job of other providers to advocate for themselves to obtain a behavior consult.

Theme:

IFSP Identification

Interventionists suggest behaviors be identified more explicitly on the IFSP so the providers might have an indication of the additional services to be provided. Interventionists also suggest broadening the goals listed on the IFSP in order to provide a wider range of services.

Theme:

Clear Communication

Interventionists suggest having greater clarity in the communication that circulates through Early Steps. This can include, but is not limited to, clearer communication about policy changes and additional services available to families.

Theme:

Consult Accessibility

Interventionists suggest that behavior consults should be easier to acquire. This includes access to behavior specialists and greater communication to service providers about the supports that are available in terms of case consultation. Some interventionists also suggest having regular case consultation with specialists or regular group consultation sessions in order to increase accountability.

Theme:

Increased Training

Interventionists suggest more training in the area of behavior for both service providers and families. This theme may be applied to requests in addition to behavior specifically (e.g., Autism).

Theme:

Supplementary Resources

Interventionists request additional resources in order to improve their service delivery. This can include, but is not limited to, handouts for parents, pamphlets, and information about research-based strategies. Interventionists also suggest having more community resources available for families.

Appendix D: IRB Approval



RESEARCH INTEGRITY AND COMPLIANCE
Institutional Review Boards, FWA No. 00001669
12901 Bruce B. Downs Blvd., MDC035 • Tampa, FL 33612-4795
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March 8, 2016

Sarah Dickinson
Educational and Psychological Studies
Tampa, FL 33612

RE: Expedited Approval for Initial Review

IRB#: Pro00024637

Title: An Evaluation of IDEA Part C Interventionists' Knowledge and Use of Evidence-Based Practices for Young Children with Challenging Behavior

Study Approval Period: 3/8/2016 to 3/8/2017

Dear Ms. Dickinson:

On 3/8/2016, the Institutional Review Board (IRB) reviewed and **APPROVED** the above application and all documents contained within, including those outlined below.

Approved Item(s):

Protocol Document(s):

[USF IRB Protocol Version 1 03_07_2016.docx](#)

Consent/Assent Document(s)*:

[Adult Minimal Risk Consent Version 1.docx.pdf](#)

*Please use only the official IRB stamped informed consent/assent document(s) found under the "Attachments" tab. Please note, these consent/assent document(s) are only valid during the approval period indicated at the top of the form(s).

It was the determination of the IRB that your study qualified for expedited review which includes activities that (1) present no more than minimal risk to human subjects, and (2) involve only procedures listed in one or more of the categories outlined below. The IRB may review research through the expedited review procedure authorized by 45CFR46.110. The research

proposed in this study is categorized under the following expedited review category:

- (6) Collection of data from voice, video, digital, or image recordings made for research purposes.
- (7) Research on individual or group characteristics or behavior (including, but not limited to, research on perception, cognition, motivation, identity, language, communication, cultural beliefs or practices, and social behavior) or research employing survey, interview, oral history, focus group, program evaluation, human factors evaluation, or quality assurance methodologies.

As the principal investigator of this study, it is your responsibility to conduct this study in accordance with IRB policies and procedures and as approved by the IRB. Any changes to the approved research must be submitted to the IRB for review and approval via an amendment. Additionally, all unanticipated problems must be reported to the USF IRB within five (5) calendar days.

We appreciate your dedication to the ethical conduct of human subject research at the University of South Florida and your continued commitment to human research protections. If you have any questions regarding this matter, please call 813-974-5638.

Sincerely,



Kristen Salomon, Ph.D., Vice Chairperson
USF Institutional Review Board

Appendix E: Informed Consent

Study ID:Pro00024637 Date Approved: 3/8/2016 Expiration Date: 3/8/2017



Informed Consent to Participate in Research Involving Minimal Risk

Pro # 00024637

You are being asked to take part in a research study. Research studies include only people who choose to take part. This document is called an informed consent form. Please read this information carefully and take your time making your decision. Ask the researcher or study staff to discuss this consent form with you, please ask her to explain any words or information you do not clearly understand. The nature of the study, risks, inconveniences, discomforts, and other important information about the study are listed below.

We are asking you to take part in a research study called:

Part C Providers' Utilization of Interventions for Young Children with Challenging Behavior

The person who is in charge of this research study is Sarah Dickinson. This person is called the Principal Investigator. However, other research staff may be involved and can act on behalf of the person in charge. She is being guided in this research by Dr. Linda Raffaele Mendez and Dr. Emily Shaffer-Hudkins.

The research will be conducted at a location of the participant's time and choosing.

Purpose of the study

The purpose of this study is to learn more about interventionists' practice for children on their caseload who exhibit challenging behaviors. We would like to learn more about the interventions currently in use and how these interventions were selected for the child/referral concern. Additionally, we would like to use the information gathered to identify ways in which Early Steps can better prepare its interventionists to serve young children with challenging behaviors. The ultimate goal of this study is to improve organizational policy of Early Steps by seeking the knowledge and perspectives of its primary stakeholders, the interventionists.

Why are you being asked to take part?

We are asking you to take part in this research study because you are an Early Steps interventionist who has at least one child exhibiting challenging behaviors on your caseload. We believe you can meaningfully contribute to the outcomes of this study.

Study Procedures:

If you take part in this study, you will:

- Participate in a one-time interview and review the acceptability of the researcher's interpretation of the interview following participation.
- Answer questions related to your intervention development and implementation for children in your caseload who exhibit challenging behaviors. You will also be asked to respond to hypothetical scenarios of challenging behavior in terms of how you would provide services. Additional questions will be asked regarding how Early Steps can help you to improve your practice.
- The interview will take approximately 45-60 minutes, and the review of the interview will take approximately 30-45 minutes. The interview will ideally be conducted in person, while the review may be conducted in person or via e-mail. The maximum number of meetings will be two.
- The time and place of the interview will be at the discretion of the interventionist. The only request is the location be free from distraction and potential eavesdroppers, as potentially sensitive case information will be discussed.
- Participants' interviews will be recorded for transcription purposes. The researcher and graduate research assistants will be listening to the audiotapes, which will be de-identified by referring to the interventionist by a pseudonym throughout the interview. Additionally, the faculty advisor not associated with Early Steps, Dr. Linda Raffaele Mendez, will have access to the audiotapes. The audiotapes will be kept for five years following the interview, as per the university IRB guidelines. Following the period of five years, the audiotapes will be destroyed by deleting electronic copies, shredding paper copies, and cutting CD-ROMs in half.

Total Number of Participants

About 12 individuals from various Early Steps providers will take part in this study at USF.

Alternatives / Voluntary Participation / Withdrawal

You do not have to participate in this research study.

You should only take part in this study if you want to volunteer. You should not feel there is any pressure to take part in the study. You are free to participate in this research or withdraw at any time. There will be no penalty or loss of benefits you are entitled to receive if you stop taking part in this study. The decision not to participate will not affect your job status.

Benefits

The potential benefits of participating in this research study include:

- The potential to contribute meaningfully to the organizational structure of Early Steps, which could lead to more professional development opportunities by directly incorporating feedback solicited from this study

Risks or Discomfort

This research is considered to be minimal risk. That means that the risks associated with this study are the same as what you face every day. There are no known additional risks to those who take part in this study.

Compensation

You will be compensated with a \$10 gift card if you complete all the scheduled study visits. If you withdraw for any reason from the study before completion, you will not be paid.

Costs

It will not cost you anything to take part in the study.

Privacy and Confidentiality

We will keep your study records private and confidential. Certain people may need to see your study records. Anyone who looks at your records must keep them confidential. These individuals include:

- The research team, including the Principal Investigator, College of Education faculty advisor, and graduate research staff.
- Certain government and university people who need to know more about the study, and individuals who provide oversight to ensure that we are doing the study in the right way.
- The USF Institutional Review Board (IRB) and related staff who have oversight responsibilities for this study, including staff in USF Research Integrity and Compliance.

We may publish what we learn from this study. If we do, we will not include your name. We will not publish anything that would let people know who you are.

You can get the answers to your questions, concerns, or complaints

If you have any questions, concerns or complaints about this study, or experience an unanticipated problem, call Sarah Dickinson at (850) 418-0652.

If you have questions about your rights as a participant in this study, or have complaints, concerns or issues you want to discuss with someone outside the research, call the USF IRB at (813) 974-5638.

Consent to Take Part in this Research Study

I freely give my consent to take part in this study. I understand that by signing this form I am agreeing to take part in research. I have received a copy of this form to take with me.

Signature of Person Taking Part in Study

Date

Printed Name of Person Taking Part in Study

Statement of Person Obtaining Informed Consent

I have carefully explained to the person taking part in the study what he or she can expect from their participation. I confirm that this research subject speaks the language that was used to explain this research and is receiving an informed consent form in their primary language. This research subject has provided legally effective informed consent.

Signature of Person obtaining Informed Consent

Date

Printed Name of Person Obtaining Informed Consent

Appendix F: Recruitment Flyer



Part C Providers' Utilization of Interventions for Young Children with Challenging Behavior

What is a challenging behavior?

A challenging behavior is a social-emotional impairment, which includes patterns of behavior that hinder a child from learning or engaging with peers and adults in a positive way (Smith & Fox, 2003).

Who is eligible to participate in this study?

Any Infant and Toddler Developmental Specialist or Early Interventionist affiliated with Early Steps who has a child with challenging behaviors (as previously described) on their current caseload is eligible to participate.

What are the benefits?

Participants will receive a \$10 gift card for participation in this study. In addition, participants will be given the opportunity to potentially contribute to the professional development practices at Early Steps.

What is the time commitment?

Participants will be asked to commit time for one interview lasting approximately 45 minutes to an hour. Participants will also be asked to spend 30-45 minutes reviewing the researcher's analysis of the interview for accuracy.

References:

Smith, B. J., & Fox, L. (2003). Systems of service delivery: A synthesis of evidence relevant to young children at risk of or who have challenging behavior. Center for Evidence-based Practice: Young Children with Challenging Behavior.

Purpose of the Study:

This research is being conducted in order to better understand the types of interventions utilized by Infant and Toddler Developmental Specialists and Early Interventionists affiliated with Early Steps. We hope to use this information to improve the professional development practices at Early Steps. Participation in this research study is optional.

Need more information?

Contact Information:
Sarah Dickinson, USF School Psychology Doctoral Student
E-mail: sdickinson@mail.usf.edu
Cell: 850-418-0652

IRB Pro # 00024637

Appendix G: Journals

“Courtney”

ITDS

03-15-16

For my first interview, “Courtney” was a pleasant surprise to what I was expecting. Based on my discussions prior to interviews and information found for my literature review, I was expecting to hear strategies that were not based in research at all. Courtney described numerous strategies that were supported by research. However, I am unsure whether she is using them because they are supported by research or because she has heard about them/seen them used by others.

One aspect of the interview that was consistent with my literature review was that Courtney did not systematically identify appropriate practices by identifying the function of the behavior. This is critical to creating an intervention that is most effective for the child.

Another unusual part of Courtney’s interview was that she stated that behaviors always occur in order for children to access attention. She further noted that children with cognitive or neurological impairments are typically the children who engage in behaviors for reasons other than attention. This was shocking to me because even typically developing children still engage in behaviors to access tangibles, escape a task demand, and access sensory input. I am concerned that some children might not receive individualized services if the conceptualization is that all behaviors occur to access attention, and thus, should be ignored. Moreover, the interventions may not even improve behaviors. This is made especially worse when considering Courtney shared she does not objectively progress monitor. She relies on parent report and observation during sessions. This type of progress monitoring may not truly reflect the effectiveness of the intervention. This shows that interventionists at Early Steps may need further training in the area of behavior in order to provide services that best meet the interests of their children.

Overall, I was very impressed by Courtney’s use of evidence-based practices. She tries hard to remain up-to-date on effective strategies by engaging in her own Internet research. She has a good foundation on which to build. Increased training in the area of behavior would improve her practice even more.

“Matthew”

EI

04-01-16

There is little to say about “Matthew’s” interview. Because of his extensive training background related to child development and behavior, he provided responses that were consistent with best practice. He identified functions through a multi-method, multi-informant approach and matched the function of the behavior to the intervention. He monitored progress with the intervention systematically. He exemplified what best practice should look like, even when there are barriers to home-based service-delivery.

I was very impressed with Matthew’s knowledge and application of skills. When compared to Courtney, Matthew showed that the vast difference in training backgrounds of interventionists noted in my literature review really does make a difference in the types of services young children receive. Unfortunately, there are very few licensed professionals providing services at Early Steps.

“Caitlin”
EI
05-06-16

The most salient reaction I have to this interview is that of bias. After completing this interview, I feel as though my questions may be biased towards a behavioral or cognitive-behavioral orientation. This is particularly problematic considering the rating of the interventionist is based on his/her use of a functional behavioral assessment. This, however, is only one orientation for psychological services. The interventionist interviewed today, “Caitlin,” was from a developmental and clinical background with 30 years of experience; thus, her approach to problem-solving and intervention development was discrepant from my own training and from the orientation I use for my research. Ultimately, I am concerned that if I use the rating scale I currently have, then I will not capture the degree to which her practice is supported by research.

The foundation of all of Caitlin’s interventions is based on a model of parent-child interaction. This in and of itself is evidence-based within the behavior analytic literature. Caitlin also discussed using a multi-method, multi-informant approach to understanding behaviors. The critical pieces missing from Caitlin’s descriptions of her interventions were the identification of a function of behavior and utilization of progress monitoring data. While Caitlin discussed identifying “why” the behavior occurs, she compromised this behavioral approach by alluding that all behaviors occur as a result of a breakdown in parent-child interaction. Thus, interventions would focus on parent psychoeducation and teaching the child to regulate their emotions. One major technique discussed by Caitlin was similar to the idea of functional communication training (FCT), which is an evidence-based intervention. However, the FCT Caitlin discussed was not focused exclusively on teaching the child an appropriate alternative to get their needs met, but to teach the child how to regulate their emotions, which is fostered through a healthy parent-child relationship. Overall, I feel as though Caitlin’s strategies are evidence-based, but they are perhaps narrow in terms of their applicability. Caitlin was an extremist in her views of appropriate theoretical orientations. In particular, Caitlin was not open to other techniques from orientations different from her own. Caitlin noted that a cognitive behavioral approach does not target the reason for a mental health concern, but rather, gives strategies for managing the concern. Moreover, she cited research about the distribution of variance in the efficacy of interventions, saying that the relationship and client factors had the most impact on outcomes. While this is true, I am not sure this research applies to children with challenging behaviors. I will need to research this idea. Throughout the interview, I increasingly felt as though my questions were skewed towards a behaviorist’s perspective, and my rating system may not reflect the degree to which the practice is supported by research.

In terms of the needs assessment, Caitlin had a number of great ideas for future support of interventionists, particularly infant and toddler developmental specialists (ITDSs). Caitlin discussed that Early Steps might consider making it easier for ITDSs to get a consult with a specialist at Early Steps if the concern was outside of the interventionist’s training. She also discussed the idea of a more streamlined feedback loop from administration to interventionists. A third idea discussed was that Early Steps should gather more information in addition to the intake and exit. In other words, Early Steps should monitor the efficacy of the program. A final area of improvement discussed by Caitlin was that of respect for interventionists. She felt as though ITDSs were not given enough respect for their job. Specifically, Caitlin noted a period of time where interventionists were not paid for their work, which Caitlin felt was inappropriate.

“Lindsey”
ITDS
06-06-16

I felt really good about this interview after I left. “Lindsey” explicitly described evidence-based strategies that she had learned both from experience and from trainings from reputable sources. I am beginning to see patterns in responses, where the ITDSs tend to use “random acts of behaviorism.” I am not sure why interventionists feel ABA is appropriate to use in some situations but not in others. Lindsey had a clear understanding of behaviorism, but she does not consistently use it. Thus, she will likely average between a 2 and a 3 on the evaluation. I enjoyed discussing her case with her and even felt inclined to share my own ideas regarding the case. She also shared similar concerns as others with regard to the needs assessment: more resources for ITDSs, including making it easier to get a behavior consult.

The idea of my interview evaluation criteria being biased is still bothering me, even after this interview. I am feeling this way because the only participant who used evidence-based practices as it is defined in my thesis was the school psychologist, “Matthew.” I have discussed this issue with my major professor, and she told me to simply note this in my discussion, which I will do. Other emerging professionals that I have spoken to about this (my peers) have helped quiet my feelings by reminding me that my evaluation criteria are based in research and best practice. Additionally, my interview questions do not always adequately answer my research questions, which leaves me scrambling to ask other follow-up questions. At some points, I have to ask straightforward questions to answer my research questions because it is not always clear to interventionists what information I am trying to find. At this point, I am thinking I will need to adapt my evaluation criteria to better capture patterns of evidence-based practices.

“Jenn”
ITDS
06-13-16

My interview with “Jenn” reiterated some of the themes I have been seeing thus far. She was very knowledgeable about effective practices; however, she did not systematically identify them for her cases. Moreover, she did not monitor progress using objective measures.

One notable aspect of Jenn’s interview was that she asked specifically for more research-based strategies. Though others have asked for more strategies, trainings, etc., none have inquired specifically about those that are evidence-based. This shows Jenn understands that practices implemented in standard care should be supported by research.

Another notable aspect of Jenn’s interview was that she had some training specifically in applied behavior analysis. Interestingly, she also seemed to be confused about the application of principles of applied behavior analysis, indicating that she identifies a “formal” function only for her most severe cases. This reiterates that people have a misunderstanding of the theory and application of behaviorism, even when they have background knowledge related to it. This is likely because children receiving applied behavior analysis as a therapy typically have extreme behavioral manifestations. Thus, those with and without experience with behaviorism are under the misconception that it is only used for this population. I feel very strongly that all behaviors significant enough to impair daily life should have a function identified. If the function is not identified, then services may not necessarily be effective.

“Judy”

ITDS

06-22-16

“Judy’s” interview was very interesting to me. I have been noticing that many interventionists have very different conceptualizations of ABA. Judy reported that she did not feel an FBA for young children was appropriate. However, she also reported a strong liking for PBS and the Pyramid Model. This is really interesting when considering the recommendation for Tier 3 services under the Pyramid Model includes the use of an FBA. If Judy likes PBS, then she should be on board with conducting an FBA for her cases where behavior is impeding progress with other goals on the IFSP. In addition, Judy used ABA language during the vignettes. For example, she told me she would identify antecedents of behavior and manipulate the environment (this is a major component of an FBA). This leads me to think Judy either does not understand ABA, or she has a misunderstanding of PBS and the function of an FBA. Thus, like others, she would benefit from more PD in treatment for challenging behaviors, even if she feels she has no gaps in her understanding of treatment for behaviors.

Judy uses elements from an evidence-based program she found through her own research. Thus, Judy is actively seeking out evidence-based strategies. She also works heavily on parent-child relationships, which is best practice for young children. However, these appear to be the only tools in her kit. Moreover, she does not identify a function of behavior, which will preclude her from earning a three on the score sheet. This, again, highlights the biased nature of my own scoring rubric. However, I still strongly believe that an FBA should always be utilized and incorporated into intervention.

“Meghan”
ITDS
06-23-16

I really enjoyed talking to “Meghan” today. She was very outspoken about her confidence in her practices. She was also open about her understanding of appropriate interventions for behavior. She shared that she feels that most toddlers engage in behaviors to get attention, sensory stimulation, or a tangible, but besides that, she is unsure what to do. She feels that children who do not respond to an active ignoring intervention likely have some type of neurological or psychological problem. This made me think that ITDSs probably do not have a firm understanding of the FBA process. Although, Meghan did report that she observes and discusses the behavior with the parent before she implements an intervention. Meghan reported she asks what “triggers” the behavior and what the parents’ responses are, which is essentially an FBA. However, Meghan never mentioned escape as a function of behavior. Moreover, I am concerned that ITDSs tend to think of within child concerns when their intervention does not work, as was noted by Meghan. Thankfully, most ITDSs explain that they ask someone who is perceived as more or less an “expert” if they hit a dead end in their service-delivery.

In terms of knowledge and use of EBPs, Meghan reported that she learned her strategies from her work with Head Start where she received training, from an evidence-based program (though she did not say that it was an evidence-based program), and from trial and error. Thus, Meghan, like other interventionists, uses EBPs because other credible sources informed her of them, but she does not seek them out because they are evidence-based. Thus, I would not say she uses her practices because she realizes they are based in research. Additionally, she uses trial and error to identify effective practices, which is problematic in that this practice could harm the child’s development. Although, it seems she has honed her skills and does not use trial and error so much anymore.

“Gina”

ITDS

06-30-16

“Gina” was one of my more difficult interviews, as she was particularly loquacious. The interview lasted a full 30 minutes longer than most other interviews. Moreover, I felt as though my questions may not have been adequately answered. Gina did not indicate any knowledge of ABA. She did not indicate any use of an FBA. She noted that she sometimes tries to identify “why” a child is doing something, but did not name the functions of behavior. Sometimes, she would indicate children engage in behavior to get a need met or to get out of something, but those answers came with extensive follow-up questions, which tells me she probably does not have much knowledge of best practices for challenging behaviors. Interestingly, she does not use planned ignoring as the other ITDSs do.

In terms of knowledge and use of EBPs, Gina reported using evidence-based practices, but she did not identify them solely because they have support from a reliable source. She noted that she uses practices she learned from trainings, common sense, and previous experience/trial and error. This is consistent with what I have learned from other interventionists. She also does not collect progress monitoring data, which is very consistent with previous interviews.

“Rhett”
ITDS
07-08-16

“Rhett” was significantly discrepant from the other interventionists I have interviewed who are of his same licensure. His training background is in ABA and he holds a BCBA license. As such, Rhett’s responses were extremely in line with best practice for challenging behaviors. I was pleased to learn he completed a miniature functional analysis for the case he described. He also demonstrated understanding of the importance of progress monitoring and analyzing data; however, he noted he does not have the chance to execute this as well as he would like because of the constraints of being an infant and toddler developmental specialist. Rhett noted some of the same concerns as others in terms of the needs assessment. However, Rhett is an outlier in terms of his service delivery.

Altogether, I was impressed by Rhett’s interventions and understanding of behavior. He demonstrates the importance of having a behavioral background in delivering services for challenging behaviors. Unfortunately, this type of training is few and far between among the interventionists at Early Steps. He would be a great person to collaborate with in the future for implementing the needs assessment results.

“Melissa”

EI

07-12-16

The interview with Melissa went well. Talking with her solidified that it is not necessarily licensure that makes the difference in understanding best practice for challenging behaviors, but specific training background. She definitely uses evidence-based practices, but like others who do not have a strict behavioral background, she uses strategies without identifying a function. Interestingly, she completed the HOT DOCS training, but did not take away the point of the ABCs of behavior. She focuses on planned ignoring as an effective strategy and uses this almost exclusively. However, she clearly has a better understanding of strategies than some of her peers. Like other interventionists, Melissa does not progress monitor using a formal tool. She relies on parent report. This highlights for me the differences in training from a behavioral or school psychological perspective.

As a whole, I think Melissa reflected similar patterns as the other interventionists. Again, her responses showed that my rating scale is probably biased towards a behavioral perspective. However, the behavioral perspective is currently what is considered best practice in the field.