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Early Intervention Sessions for Infants and Toddlers With Autism Spectrum Disorders: Providers' Use of Routines, A Case Study

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EARLY INTERVENTION SESSIONS FOR INFANTS AND TODDLERS WITH AUTISM SPECTRUM DISORDERS: PROVIDERS' USE OF ROUTINES, A CASE STUDY

A Dissertation
Submitted to the School of Graduate Studies and Research
in Partial Fulfillment of the
Requirements for the Degree
Doctor of Education

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Indiana University of Pennsylvania
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Title: Early Intervention Sessions for Infants and Toddlers With Autism Spectrum Disorders:
Providers' Use of Routines, A Case Study

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This qualitative case within a case study examined the support provided to a family of a toddler with an Autism Spectrum Disorder in the Early Intervention (Part C) Program. One contemporary team of providers consisting of a special instructor, speech and language pathologist, occupational therapist, and service coordinator, along with three family members participated in this research. The purpose of this study was to examine how providers supported the family of a toddler diagnosed with an Autism Spectrum Disorder in Early Intervention (Part C). Additionally, this study sought to explore the providers' influences in the use of family routines in the context of home visit sessions. A blended theoretical framework of Ecological Systems Theory and Transition theory was used to examine the ecology of the situation, in addition to the assets and liabilities associated with the identified transition from child-centered to family-centered approaches in Early Intervention (Part C) service delivery. The problem of this study identified that although: (a) family routines have been acclaimed to provide families with a sense of well-being, (b) studies of families with children on the autism spectrum show marked difficulties enacting daily family routines, and (c) research indicates that enhancing the daily family routines is an essential step toward promoting the well-being for families of children with autism; yet, no studies were identified that described how EI (Part C) providers were supporting families of infants and toddlers diagnosed on the autism spectrum within their daily family routines. This study utilized multiple participant views in order to create a descriptive thematic case report for the influences present in the support and use of family routines in the context of EI (Part C) home visit sessions.

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However, it definitely changed the way that we think.
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I ask her to always watch over me and to see that I carry her kindness, love of life,
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CHAPTER 1

INTRODUCTION

The Early Intervention, (Part C), [EI (Part C)] of the Individuals with Disabilities Education Act ([IDEA] PL 108-446, Sec. 1) was founded in 1986 in order to provide services to the families of infants and toddlers [I/Ts] with significant developmental delays or disabilities. EI (Part C) services are delivered to families of I/Ts with developmental delays or disabilities by providers deemed qualified through the state and lead agencies (§303.121, § 303.120). In September 2011, the Department of Education [DE] released the Final Regulations of the EI (Part C) Program. These regulations restated the delivery of EI (Part C) services within the context of the natural environment as a developmentally appropriate practice for I/Ts (DE, 2011, Sec. 303.26).

The purpose of the EI (Part C) is to enhance the development of I/Ts with developmental delays or disabilities (§ 303.1[A]). Additionally, the EI (Part C) Program aims to reduce the financial strains to the educational system for school-aged children through increasing the capacity of families to meet the special needs of their child (§631(a)(2)). The current provision of services is recommended through a family-centered methodology, which positions the family as central informant to service delivery (DE, 2011; Division for Early Childhood [DEC], 2014). The family-centered approaches are described by the DEC (2014) as:

> Practices that treat families with dignity and respect; are individualized, flexible, and responsive to each family's unique circumstances; provide family members complete and unbiased information to make informed decisions; and involve family members in acting on choices to strengthen child, parent, and family functioning. (p. 9)

The intention of family-centered care is to provide families with the tools and resources that enable them to assist in their child's development within their natural environment (DEC, 2014). Service provision guidelines recommend that providers use a collaborative process with families. Further, families are more easily able to carry out the recommended intervention when providers employ supportive interactions that utilize the daily activities and routines of the family (DEC, 2014; Woods, Wilcox, Friedman, & Murch, 2011; Workgroup on Principles and Practices in Natural Environments, 2008). Swanson, Raab, and Dunst (2011) indicated that when family-centered, capacity-building approaches are utilized, parents experience heightened sense of self-efficacy.

Family-centered approaches are widely researched and persist as the accepted and recommended developmental practice in EI (Part C) (DEC, 2014). Further, family-centered approaches in EI (Part C) are often represented as a coaching model (Rush & Sheldon, 2011). Rush and Sheldon (2011) described the coaching model for EI (Part C) as the process of assisting families in their own skill development to promote the development of their child. The provision of coaching included the family's ability to provide developmentally stimulating opportunities for their I/T within their natural environments during typical family routines (Hickman, Westcott-McCoy, Long, & Rauh, 2011; Sawyer & Campbell, 2012). Adams, Tapia, and The Council on Children with Disabilities (2013) expressed the seamless integration of these interventions within the activities and routines of the family. Therefore, the authors expressed that a family-centered model served to enhance the family system, versus creating new activities and expectations outside of the typical context of family functioning (Adams, Tapia, & The Council on Children with Disabilities, 2013). Woods and Brown (2011) showed that interventionists' ability to effectively use family-centered practices enhanced the interactions between the parent and child, thereby resulting in more between-visit developmental practices. Through the inclusion of families in the intervention practices of everyday routines and activities, the providers' ability to tailor the environment to meet the needs of the child has been shown to facilitate positive outcomes in EI (Part C) (Goode, Diefendorf, & Colgan, 2011).

Statement of the Problem

While the DEC (2014) recommended a family-centered approach within the EI (Part C) Program, research suggested that a gap exists between the actual and recommended practices of the providers (Colyvas, Sawyer, & Campbell, 2010). In EI (Part C) an identified lack of educational preparation and training in the family-centered model is prevalent (Fleming, Sawyer, & Campbell, 2011). Fleming et al. (2011) asserted that additional factors, such as the providers' judgments of family characteristics, further hinder the family-centered model's effective implementation. Research indicates that providers of EI (Part C) services are often ill-equipped to provide family-centered services in the context of natural environments (Bruder, Dunst, Wilson, & Stayton, 2013; Campbell, Chiarello, Wilcox, & Milbourne, 2009; Dunst, Bruder, & Espe-Sherwindt, 2014). Campbell and Sawyer (2009) identified through their research that EI (Part C) occupational and speech therapists reported low levels of confidence in their ability to effectively provide family-centered services due to an education-to-practice "mismatch" (p. 22). More specifically, the authors reported that educational settings focused on child-directed strategies with little emphasis on parental coaching, which is imperative to the family-centered approach (Campbell & Sawyer, 2009). Therefore, providers are often ill-equipped through their educational experiences to operate in a family-centered way.

Several studies indicated that providers often adopted a child-centered style which did not translate to the collaborative effort of facilitating child development through the use of family activities and routines (Campbell & Sawyer, 2009; Colyvas, Sawyer, & Campbell, 2010). Specifically, research by Colyvas, Sawyer, and Campbell (2010) indicated that the majority of intervention time included the provider directly interacting with the child. The authors found that less than 15% of the time involved collaboration and direct interaction with the parents in the home visit sessions. Further, Campbell and Coletti (2013) conducted a research study that identified "play with toys" (p. 242) as the dominant intervention context within home visit sessions. This indicated that providers supported families primarily in the context of play, rather than throughout the family's daily routines and activities. From this study, the authors asserted that research should begin to identify activity contexts used by providers in home visit sessions (Campbell & Coletti, 2013).

Family routines have been identified to provide families with a "normalcy of life" (Rodger & Umaibalan, 2011, p. 20). Evans and Rodger (2008) observed the routines of families with typically developing children between the ages of two to six years. The authors indicated that the families' routines provided a sense of structure and stability which led to established family rituals that provide meaning and belonging within a family. Research specific to autism spectrum disorders [ASDs] has identified the challenges associated with performing family routines as a prominent stressor for healthy family functioning and general well-being (Boyd, McCarthy, & Sethi, 2014). For instance, research has indicated that families of children with ASDs often focus exclusively on the child's needs or potentially exclude the child from participation within the family routines (DeGrace, 2004; Segal, 2004; Wolin & Bennett, 1984). Exclusion from family routines hinders pivotal, developmental opportunities within the child's everyday experiences (Campbell & Coletti, 2013). Further, research indicated that families of children with ASD express difficulty with routines into adolescence (Boyd, McCarty, & Sethi, 2014; Rodger & Umaibalan, 2011; Sood, LaVesser, & Schranz, 2015). From infancy to adolescence, family routines have been identified as a significant challenge toward the well-being of the family. However, research has supported that I/Ts with ASD, who are actively engaged in everyday routines, develop the ability to become socially competent in their natural environments (Siller et al., 2013).

Historically, the literature on ASD provides a behavioral approach to treatment that reflects studies based on the research of older children (Schertz, Baker, Hurwitz, & Benner, 2011). Schertz et al. (2011) expressed that:

> [E]merging intervention protocols for toddlers with ASD may be influenced by a "push down" of intervention methods (i.e., application of intervention techniques used with older children, also used with toddlers). (p.5)

These models developed out of the ground-breaking study conducted by Ivar Lovaas (1987) utilizing classical conditioning techniques. Classical conditioning requires intensive intervention, as many as 40 hours a week, advocating a client-centered (child-centered) focus of treatment. Hebbeler, Bailey, Scarborough, Mallik, Simeonsson, Singer, and Nelson (2007) estimated an average service delivery time of 90 minutes a week in the EI (Part C) system. This is in stark contrast to that of the Comprehensive Treatment Model's [CTM], behaviorally-based, 1,500 minutes (15-20 hours) a week (Schwartz & Sandall, 2010). Boyd, Odom, Humphreys, and Sam (2010) indicated that in order for EI (Part C) to progress, providers must strive to effectively increase the day-to-day services that families receive, along with a continued effort of research into these services. Despite the push for more intensive hours for I/Ts with ASDs, Schwartz and Sandall (2010) quantified that the EI (Part C) system is financially ill-equipped to provide these comprehensive services.

Schertz et al. (2011) described the “concerns of congruence” (p. 5) that have emerged between the accepted behavioral-based models and the current provision of EI (Part C). With consideration of these intervention approaches and models, it appears that there is disconnect between models of I/T intervention for ASD and the EI (Part C) service delivery model. Based on the providers’ training and education, the conflicting schools of thought may influence the providers’ ability to use family routines as the main vehicle of intervention for EI (Part C) home visit sessions for I/Ts with ASDs (Schertz et al., 2011). The problem of this study identified that, to date, the author was unable to locate research that identified how providers were supporting families of I/Ts with ASDs through the use of family routines within EI (Part C) home visit sessions.

Purpose of the Study

The purpose of this qualitative case study is to describe the EI (Part C) supports provided to a family of an I/T with an ASD. More specifically, this study identified the providers’ influences and use of family routines within the context of EI (Part C) home visit sessions. It appeared that the need for an exploration of providers’ use of family routines within EI (Part C) for families of children with ASD was warranted. Research has indicated, (a) the importance of family-centered practice that utilizes the natural environment of the family, (b) the necessity of routines in promoting the development of the child and well-being of the family, and (c) the research on families of children with ASD and their general lack of participation within family routines (Boyd, McCarty, & Sethi, 2014; Rodger & Umaibalan, 2011; Rush & Sheldon, 2011). Through a review of the literature, the direct study of providers’ influences and use of family routines in EI (Part C) home visit sessions for I/Ts with ASDs appeared to produce a gap within the literature. Therefore, this study described the supports provided to a family of an I/T with an

ASD in EI (Part C). Specifically, the research aimed to identify the providers' influences that contribute to, or detract from, their use of family routines within home visit sessions.

Theoretical Framework

Theories of influence provided a foundation for this qualitative study. Through a blended approach to theory, the study explored the situation of EI (Part C) for I/Ts with ASDs from a systemic milieu, which highlighted variables of influence. Ecological Systems Theory was engaged as a means to understand the systemic influences associated with child development in the current situation of ASD in EI (Part C) (Bronfenbrenner, 1979, 1986, 1993). Therefore, the framework provided an opportunity to explore the elements of the systems in which the child interacts with, directly and indirectly. Transition Theory provided a deeper exploration of the individuals' involvement within a transitional system of influence (Anderson, Goodman, & Schlossberg, 2012; Schlossberg, 1984). Ecological Systems provided as a means to explore the relational, societal, cultural, and historical influences pertaining to the situation under study. Transition Theory sought to examine the perceptions of the individuals involved within the situation. More specifically, the blended framework allowed for examination of the interrelatedness of the self (provider/family), situation (EI (Part C) for an I/T diagnosed with an ASD), supports (training of provider/ family supports), and strategies (the use of routines). This theoretical lens served to highlight the variables of influence related to the providers' use of family routines within the system of EI (Part C) for I/Ts with ASDs.

Research Design

This study utilized a qualitative case study method as a foundation for the research design. This method allowed for exploratory depth within the study surrounding the interworking of a contemporary EI (Part C) team serving an I/T with an ASD (Creswell, 2011).

A case within a case approach to research presented multiple perspectives from which to explore the situation under study (Gondo, Amis, & Vardaman, 2010). This study engaged a family of a toddler diagnosed with an ASD. The service providers supporting the identified family were included within this research. The providers were a special instructor, speech and language pathologist, occupational therapist, and service coordinator. Each member of the team served as an individual case within the overall case.

This study utilized data collected from the direct observation of home visit sessions, semi-structured interviews with the providers and the family, and a review of the providers' home visit session notes. These data sources were utilized in order to gather information with regard to the influence and use, or non-use, of family routines in EI (Part C) home visit sessions. Data were analyzed using an inductive approach for each individual case (Hatch, 2002). Following the analysis of each individual case, a thematic cross-case analysis was conducted which employed a deductive approach to the research questions (Braun & Clarke, 2006). The research questions were answered through the observed central themes generated from the individual and cross-case analyses. The following sections describe the research questions and theoretical propositions that were formed in order to guide and generalize the findings from this study.

Research Questions

In order to more fully understand the supports that are provided to families of I/Ts with ASDs in EI (Part C), the following questions were developed:

1. In what ways are providers supporting families of I/Ts with ASDs in EI (Part C)?
2. How are families of I/Ts with ASDs supported in their daily routines through EI (Part C) home visit sessions?

3. How are EI (Part C) providers and families supported and influenced in their implementation of family-centered use of routines for I/Ts with ASDs?

Theoretical Propositions

Theoretical propositions were formed based upon the review of the literature. Theoretical propositions are a foundation from which to position the study's findings within the context of existent literature (Yin, 2014). Therefore, based upon the review of the literature, the following theoretical propositions were used as a guide in the analysis of the study's findings:

1. The provider (self), along with their educational preparation and training (supports), will reflect their home visitation style and use of family routines (strategies) in EI (Part C) sessions with families of I/Ts with ASDs (situations).
2. Social, cultural, and historical influences are present in the implementation of EI (Part C) home visitation lending to the use of family routines.
3. As a whole, in the EI (Part C) Program, family-centered practices are in transition, indicating that child-centered models may be over utilized.

Definition of Terms

Autism Spectrum Disorder (ASD) -an ASD is a neurological information processing disorder that has been identified as one of the most prevalent developmental disabilities in childhood (Center for Disease Control and Prevention [CDC], 2015a). Clinical diagnosis is made by a licensed professional utilizing the diagnostic criteria of the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5) according to three foci, including social-emotional and communication deficits, and the presence of restrictive and repetitive patterns of behavior (American Psychiatric Association [APA], 2013).

Behavioral (or Comprehensive) Treatment Models- Behavioral (or Comprehensive) Treatment Models are based on the principles and application of behavioral modification shown through B. F. Skinner's work of classical conditioning (Axelrod, Kates, McElrath, & Wine, 2012).

Chronosystem- The chronosystem is a system of influence within the Ecological Systems Model (Bronfenbrenner, 1979, 1986, 1993) which considers the historical context of societal manifestations, or, a consideration of the changes experienced due to the "passage of time" (Hartwood, Miller, & Vasta, 2008, p. 8).

Developmental Models- Developmental Models strongly align with the model of EI (Part C) for increasing family capacity to meet the needs of the child. Developmental Models consider that infants are prewired to interact in ways that develop the mind within these developmental areas through the stimulation from their environments (Bailey, 2000; Seigle, 2012; Stern, 2004).

EI- Developmental services that are selected in collaboration with families (§ 303.13[a][2]) to address the core, developmental domains (communication/language, adaptive, physical, social-emotional, cognitive) provided to families of I/Ts, at no cost, through state and federal legislation (§ 303.13[a][3]).

EI Providers- EI providers are individuals who have been deemed qualified by state agencies and licensing, in the respective fields, to provide developmental services to I/Ts including, but not limited to, special instructors, speech and language pathologists, physical therapists, and occupational therapists (IDEA Part-C, 2011, Sec. 303.31).

Exosystem- The exosystem is a system of influence within the Ecological Model (Bronfenbrenner, 1979, 1986, 1993) of development which considers the overall social systems with which the child does not directly interact, but, which has influence on the social aspects of development.

Family-Centered- Family-centered approaches assert a family-centered system as one that (a) treats families with dignity and respect, (b) allows family members the ability to make informed decisions regarding their child's care, (c) assists families in the resources and supports that are needed, and (d) is responsive and flexible in the care that is provided to the child regarding family culture, requests, and desires for their child (DEC, 2014; Wilson & Dunst, 2005; Workgroup on Principles and Practices in Natural Environments, 2008).

Family Routines- Family Routines are a series of predictable behavior patterns that serve to provide family frameworks that contribute to the organization, instrumental goals, and well-being of a family. Examples include, but are not limited to, waking up, diapering and dressing, mealtimes, getting ready to go (travel), play and down time, and bedtime (McWilliam, 2012; Roger & Umaibalan, 2011).

Home visit- Home visits are a designated intervention time of triadic interaction between the parent, EI provider, and child, occurring in the natural environment of the child (Salisbury & Cushing, 2013).

Infant or Toddler- An I/T is defined as a child between the ages of birth to the date of their third birthday (DE, 2011).

Individuals with Disabilities Education Act (IDEA, 2011)- The Individuals with Disabilities Education Act (IDEA) is a federal "law ensuring services to children with disabilities throughout the nation. IDEA governs how states and public agencies provide EI, special education and related services to more than 6.5 million eligible infants, toddlers, children and youth with disabilities." (DE, 2016, para. 1)

Macrosystem- The macrosystem is a system of influence within the Ecological Model (Bronfenbrenner, 1979, 1986, 1993) of development which considers the culture and subculture in which the child lives, ritualistic behaviors involving the beliefs, values, and traditions indicative of the family and society.

Microsystem- The microsystem is a system of influence within the Ecological Model (Bronfenbrenner, 1979, 1986, 1993) of development, which considers the environmental system that has direct contact with the child in daily interactions.

Mesosystem- The mesosystem is a system of influence within the Ecological Model (Bronfenbrenner, 1979, 1986, 1993) of development, which considers the interactions of the child's microsystem, namely, the relationships that occur within the child's direct environment.

Natural Environments- IDEA (Part C) utilizes natural environments as a model of providing services in the places in which children typically function (home/community) that encourages the use of everyday routines and activities (IDEA Part-C, 2011, Sec. 303.26).

Occupational Therapist- An occupational therapist is an EI provider who addresses the functional needs of an I/T with a disability related to adaptive development, adaptive behavior, play, sensory, motor, and postural development. Providers are designated to improve the child's functional ability to perform tasks in home, school, and community settings (IDEA Part-C, 2011, Sec. 303.13).

Office of Child Development and Early Learning (OCDEL) – OCDEL is an office within the Pennsylvania Department of Public Welfare that oversees the administration of IDEA (Part C) (Pennsylvania Department of Human Services, 2016).

(Part C) of the Individuals with Disabilities Education Act (IDEA)- IDEA is a federal program granting I/Ts (ages birth to three), with a disability or developmental delay, the ability

to receive EI at no cost to their families, through federal and state legislation (Danaher, Goode, & Lazara, 2010).

Physical Therapist- A Physical therapist is an EI service provider who addresses the promotion of sensorimotor function through enhancement of musculoskeletal status, neurobehavioral organization, perceptual and motor development, cardiopulmonary status, and effective environmental adaptation (IDEA Part-C, 2011, § 303.13).

Special Instructor- A special instructor is an EI provider who serves to "design learning environments and activities that promote the infant's or toddler's acquisition of skills in a variety of developmental areas, including cognitive processes and social interaction" including, but not limited to, curriculum planning, collaborating with families, and working with the child (IDEA Part-C, 2011, Sec.303.13, p. 110).

Speech and Language Pathologist- In EI, a speech and language pathologist is a provider who facilitates the process of acquiring developmental communication and language skills of I/Ts (IDEA Part-C, 2011, § 303.13).

Assumptions

OCDEL (2011) reported that family-centered approaches are reflected in the state implemented parent surveys, which highlighted increased family capacity to meet the child's needs. Family-centered approaches assert that a family-centered system is one that (a) treats families with dignity and respect, (b) allows family members the ability to make informed decisions regarding their child's care, (c) assists families in the resources and supports that are needed, and (d) is responsive and flexible in the care that is provided to the child regarding family culture, requests, and desires for their child (DEC, 2014; Wilson & Dunst, 2005; Workgroup on Principles and Practices in Natural Environments, 2008). However, additional research conducted in Pennsylvania indicates that communication and participation strategies utilized by providers may be lacking (Mattern, 2015). Therefore, this study assumed that family-centered practices did not necessarily assert the use of family routines in the context of home visit sessions. While family-centered practices were recognized within this study, the basis for exploration into the providers' influences and use of family routines is the particular focus for this study. Hence, this study assumes that family-centered care does not necessarily imply the providers' use of family routines, but that the use of family routines is a strategy that enhances the capacity of the family to achieve well-being and promote child development in the natural environment (Bagatell, 2015).

Limitations

Limitations of the current study include the nature of case study research which restricts generalization to a wider population (Hancock & Algozzine, 2011). Glesne and Peshkin (1992) expressed that this restriction should hold little meaning to qualitative researchers. Case study research aims to create an in-depth understanding of a case and the results serve to seek an in-depth, experiential understanding of the identified issue (Yin, 2014). In order to gather a holistic view of services, participant subcases are the family of an I/T with an ASD, in the EI (Part C) system, and the team of providers who represent the most widely utilized disciplines in the EI (Part C) system (Hebbeler, Greer, & Hutton, 2011; Raspa et al., 2010). Additionally, the service coordinator will be involved with the research as an integral team member, offering additional insight to the influence and use of family routines.

Case study analysis is a type of qualitative research in which the researchers aim to describe, document, or discover characteristics of a group of individuals (Hancock & Algozzine, 2011). "Information is explored and mined in the case study environment for a more thorough examination of a given phenomenon" (Hancock & Algozzine, 2011, p. 16). Since the research questions guiding this study are exploratory in nature, the findings from case study analysis allows for the expansion of theories and the potential for improvement in practice (Hancock & Algozzine, 2011; Merriam, 2001). Subsequently, utilizing a case-within-a-case methodological approach further supports the expansion and generalization of theory (Gondo, Armis, & Vardaman, 2010).

Significance of the Study

Pennsylvania's Office of Child Development and Early Learning ([OCDEL] OCDEL, 2012a) reported in 2010-2011 that 95% of families receiving EI (Part C) reported that EI (Part C) providers assisted with "ideas of how to support their child's development at home" (p. 49) and "built on their child's strengths and interests" (p. 49). This evidence suggests that providers in Pennsylvania are embracing elements of family-centered practice; however, an abundance of research exists indicating that family-centered practices are in transition and have not been fully recognized (Bruder et al., 2013; Campbell and Sawyer, 2009; Colyvas, Sawyer, & Campbell, 2010; Dunst et al., 2014; Swanson, Raab, & Dunst, 2011). The direct study of the use of family routines for families of I/Ts with ASDs appears to have produced a gap in the research. A strong foundation of research emphasis has been placed on the use of family routines in the context of EI (Part C) in order to build the capacity of families to progress the developmental needs of their I/T with an ASD (Ausderau & Juarez, 2013; Bagatell, 2015; Bagatell et al., 2014; Bagby, Dickie, & Baranek, 2012; Boavida, Aguiar, & McWilliam, 2014; Boyd et al., 2010; Crespo, Santos, Canavarro, Kielpikowski, Pryor, & Féres-Carneiro, 2013; Foster, Dunn, & Larson, 2013; Graham, Rodger, & Ziviani, 2014; LaVesser & Berg, 2010; Little, Ausderau, Sideris, & Baranek., 2014; Marquenie, Rodger, Mangohig, & Cronin., 2011; Odom Collet-Klingenberg, Rogers, & Hatton, 2010; Pengelly, Rodgers, & Evans, 2009; Rodger & Umaibalan, 2011; Schaaf, Toth-Cohen, Johnson, Outten, & Benevides, 2011; Segal, 2004). This study will address the identified recommendations for the future research indicating the obvious need to support families of children with ASDs in their daily routines.

Continued research is recommended in the area of ASDs for I/Ts in order to progress the outcomes of service delivery (Boyd et al., 2010; Schertz et al., 2011; Siller et al., 2013). Recommendations for the support of family routines for ASD have been indicated widely in the research; yet, the direct study of how and what is happening to accommodate families in their enactment of family routines appeared to produce a gap within the literature. This study provided an understanding in the providers' use of family routines in EI (Part C) home visit sessions for an I/T diagnosed with an ASD. Identified discrepancies surrounding the historically accepted behavioral and EI (Part C) treatment models positioned this study as a means to explore and provide understanding into the current situation. Research is required to understand the context in which services are occurring (Campbell & Colletti, 2013). Therefore, this study offers insight into the use of family routines as a context for intervention, as well as influences that surround providers' use or non-use.

A recognized movement in professional development within EI (Part C) highlights the need to transition from one-time trainings to that of a coaching model of support for providers (Odom, 2009; Snyder, Hemmeter, & McLaughlin, 2011). The information gained from this study may assist in providing curricular decisions for the professional development opportunities for current practicing providers. Further, the findings from this study served to inform the coaching process for providers in EI (Part C). Variables associated with the providers' use or non-use of the family routines offered discernment through an evaluation of influence.

Additionally, an indicated lack of family-centered training in higher education has positioned providers at a clinical level of service delivery (Fleming, Sawyer, & Campbell, 2011). The information gained from this study may assist in guiding the curricular experiences of future EI (Part C) providers through further understanding of the pivotal use, or non-use, of family routines in the context of home visit sessions.

This in-depth look into the situation will provide a contribution to the literature in the area of ASD, family-centered practices, and the providers' observed and reported use of family routines in EI (Part C) home visit sessions for I/Ts with ASDs. From the results of this study, the information gleaned may add insight into the interrelatedness of variables that lend to the use or non-use of family routines in home visit sessions (McWilliam, 2012; Schlossberg, 1981, 1984).

Summary

The purpose of this study sought to explore the influences and use of family routines, within the context of EI (Part C) home visit sessions, for I/Ts with ASDs. In spite of the recommended practices of family-centered services in EI (Part C) for I/Ts with developmental delays or disabilities, research indicates that EI (Part C) remains in transition with regard to the actual implementation of these services (Campbell & Sawyer, 2009; Fleming, Sawyer, & Campbell, 2011; Hickman et al., 2011; Hodgetts, Zwaigenbaum, & Nicholas, 2014). An in-depth qualitative case study examination of the use of family routines can be used to further inform the practice of family routines in the context of EI (Part C).

The most widely utilized, service-delivery providers, including a special instructor, a speech and language pathologist, an occupational therapist, and a service coordinator (Hebbeler, Greer, & Hutton, 2011; Raspa et al., 2010) will be included in this study. Additionally, the family of the I/T with and ASD served will be included in this research. This case-within-a-case study will engage multiple perspectives within the identified situation (Gondo et al., 2010). The insights gained from this study may provide a basis of understanding and discussion of providers' influences and use of family routines within the context of EI (Part C) home visit sessions for I/Ts with ASDs.

Ecological perspectives, or the consideration of the systemic forces of relational, historical, cultural, and environmental influences explored through the review of the literature served as a guide to conceptualize the study (Bronfenbrenner, 1979, 1986, 1993). Furthermore, to create a blended theoretical approach, Transition Theory was utilized (Schlossberg, 1981, 1984). This provided further understanding into the use of family routines in the context of EI (Part C) for I/Ts with ASDs.

The subsequent chapters will provide a description of the methodology approach and analysis of the information gathered from participants. Chapter 2 includes a narrative review of the literature with elements central to the framework and theoretical perspectives. Ultimately, the ecological perspectives, with regard to the theoretical nature of transition, provided a multifaceted framework from which to view the study from multiple angles (Edmonson & Irby, 2008). Chapter 3 will provide an in-depth explanation of the rationale for the use of a qualitative case study approach, while Chapter 4 will present results of the exploration. Finally, Chapter 5 will discuss the results within the context of the identified theoretical propositions in order to generalize the findings to the larger body of research.

CHAPTER 2

REVIEW OF THE LITERATURE

Autism Spectrum Disorder is a neurodevelopmental disorder, estimated to occur in 1:68 children (CDC, 2016a). Research expressed that I/Ts are less likely to receive a diagnosis of ASD prior to the age of four (Angie, Zwaigenbaaum, Nicholas, & Sharon, 2015; Baio, J. & National Center on Birth Defects and Developmental Disabilities, 2014; CDC, 2016a). Chawarska, Klin, Paul, Macari, and Volkmar (2009) identified that while stability in diagnosis often persists, a delay in I/T diagnosis may be explained through the disorders' early presentation as an overall developmental delay. Despite whether an official diagnosis of an ASD or the presentation of a global developmental delay exists, families of these children are qualified to receive services under the federally funded EI (Part C) Program of the Individuals with Disabilities Education Act (§631 [b] [1][2][3]). EI (Part C) provides families of children with developmental delays and disabilities supports that are intended to advance the child's functional abilities in their natural environments (§631 [a][4]; §303.26; Bruder, 2010). The family-centered approach to EI (Part C) service provision recommended the inclusion of the family as vital participants in the decision-making and service delivery processes (DEC, 2014).

Family-centered services recommend service delivery through a provider-to-parent coaching process (Rush & Shelden, 2011). The coaching process encourages a triadic approach in which the provider serves as a support to the interactions that occur between the caretaker and child (Brown & Woods, 2015; Knoche, Kuhn, & Eum, 2014; Salisbury & Cushing, 2013). Coaching is recommended to occur in the natural environment of the family, during the family's typical routines (§303.26; Foster, Dunn, & Lawson, 2013; Rush & Shelden, 2011). Through the child's participation in the daily routinized interactions of the family, opportunities for developmental growth unfold (Campbell & Coletti, 2013). Often, in the case of a child with a developmental delay or disability, these interactions must occur at a higher frequency in order to stimulate the child's development and learning of new skills (Trivette, Dunst, & Hamby, 2010). The coaching relationship allows the provider to develop the capacity of the family to reenact those routines during non-provider led hours (OCDEL, 2012a; Woods & Brown, 2011). Despite the encouraged use of family routines in EI (Part C) home visit sessions, literature has shown that providers' approaches can often deviate from a family-centered focus (Colyvas et al., 2010; Fleming et al., 2011).

Studies of providers who conducted home visit sessions showed a propensity to resort to a more clinically oriented model of intervention, which utilized a child-centered approach (Colyvas, Sawyer, & Campbell, 2010). Child-centered approaches often favor the acquisition of child skills to that of child participation within family routines (McWilliam, 2012; McWilliam, 2015). In these more clinically oriented, or child-centered approaches, the provider will engage directly with the child, oftentimes limiting the family to indirect involvement or none at all (Colyvas, Sawyer, & Campbell, 2010). This proclivity to recourse towards a clinical model may have its roots in the providers' education (Bruder, Dunst, Wilson, & Stayton, 2013; Campbell, Chiarello, Wilcox, & Milbourne, 2009). It has been shown that a clinical focus dominates those educational experiences, offering significantly less curricular attention to family-centered preparation (Francois, Coufal, & Subramanian, 2015). This literature suggests a lack of family-centered educational preparation for providers. Additionally, providers often enact a judgement, or cognitive process, that may detract from the use of family-centered practice in their home visit sessions (Fleming et al. 2011; Salisbury, Woods, & Copeland, 2010).

Research conducted specifically on ASDs and family routines indicated a disadvantageous impact on family functioning and well-being for this population (Bagatell, Cram, Alvarez, & Loehle, 2014). The core deficits indicated in ASDs often present challenges to the family with regard to functioning within predictable routines for ages spanning from infancy through adolescence (Bagatell, 2015; LaVesser & Berg, 2011). Due to the sensory difficulties and behaviors typically associated with the disorder, those daily family routines, which are critical to developmental growth, are frequently disrupted (Ausderau & Juarez, 2013). This disruption results in the child with ASD missing opportunities for participation within his or her natural environment (Koome, Hocking, & Sutton, 2012). For each of the reviewed studies focused upon family routines in ASD, it was recommended that family routines should take precedence in the services and supports that are provided to the families of children with ASD (Ausderau & Juarez, 2013; Bagby, Dickie, & Barnek, 2012; Bagatell, 2015; Bagatell et al., 2014; LaVesser & Berg, 2010).

Historically, ASDs have been treated using a clinical model of intervention (Schertz et al., 2011). These clinical models of intervention continue to be considered a gold standard and provide a strong research background; however, the research conducted has been, predominately, with children that are beyond the toddler years (Siller et al., 2013; Warren, McPheeters, Sathe, Foss-Feig, Glasser, & Veenstra-VanderWeele, 2011). These clinical, or behavioral models, are often “pushed down” to I/Ts with ASDs (Schertz et al., 2011, p. 5). Wise, Little, Holliman, Wise, and Wang (2010) identified that the clinical models often require an intense amount of clinician-led hours, (professionals’ direct interaction with the child) which shows misalignment with the family-centered approaches of the EI (Part C) Program (DEC, 2014).

Within the last decade, EI (Part C) research appeared to shift focus toward the identification and improvement of family-centered practices to enhance family participation in service delivery (Bruder et al., 2013; Campbell & Sawyer, 2009; DeGrace, 2004; Dunst, Bruder, & Espe-Sherwindt, 2014). The focus on the improvement of the family-centered practices in EI (Part C) indicated that the EI (Part C) system is in a state of transition from more clinically focused, or child-centered practices, to that of a system of firm, family-centered practice (Bruder et al., 2013; Campbell & Sawyer, 2009; Dunst & Bruder, 2014). A number of elements appear to be relevant in this transition from child-centered practices to the consistent use of family-centered practices. For instance, the individual providers' cognition plays an important role in this transition (Fleming et al., 2011). Additionally, the supports afforded to the provider in his or her implementation of family-centered practices appear to contribute to the use or non-use of family-centered practices (Campbell & Sawyer, 2009; Kashinath, Coston, & Woods, 2014). Finally, family characteristics, including their experiences of managing the diagnosis of ASD, factor into this transition (Giallo, Wood, Jellett, & Porter, 2011).

Studies have acknowledged: (a) the importance of family-centered practice that utilize the natural environment of the family in EI (Part C), (b) the necessity of routines in promoting the development of the child and well-being of the family, and (c) significant disruptions of family routines in the context of ASDs (Ausderau & Juarez, 2013; Colyvas, Sawyer, & Campbell, 2010; DEC, 2014). However, the direct study of the use of family routines in the context of EI (Part C) home visit sessions for families of I/Ts with ASDs appears to produce a gap within the research (Salisbury, Woods, & Copeland, 2010; Sawyer & Campbell, 2012; Schaaf, Toth-Cohen, Johnson, Outten, & Benevides, 2011). Therefore, in order to position the literature within this study, Ecological Systems and Transition Theories will blend to form a framework. More specifically, the framework will guide the review of existing research to create understanding into the situation under study. Included within this review are the ecological considerations of the situation, in addition to the influences that serve to enhance or detract from the transition from child-directed to family-centered models.

Ecological-Transition Theoretical Framework

A blend of Ecological and Transition Theories guided this review in order to position the literature within this study. Ecological Systems Theory asserted that forces, seen and unseen, serve to influence the development of the child (Bronfenbrenner, 1979, 1986, 1993). Within this study, the Ecological System Theory reviewed those forces (or systems) that form the EI (Part C) Program for I/Ts with an ASD. Transition Theory (Anderson, Goodman, & Schlossberg, 2011; Schlossberg, 1981, 1984) will blend with Ecological Systems Theory to present the literature concerning the transitioning situation of EI (Part C) for I/Ts with ASDs in the context of the ecology of the child.

Ecological Systems Theory

An Ecological Model encompassed a systemic view, which identified the forces that influence child development (Bronfenbrenner, 1979, 1986, 1993). This model considers the visible relationships and interactions as a context for understanding development (Hartwood, Miller, & Vasta, 2008). Additionally, invisible elements, such as historical perspectives, allowed for broader depth of understanding within the literature base (Bronfenbrenner, 1979, 1986, 1993).

Urie Bronfenbrenner’s (1979, 1986, 1993) Ecological Model has been widely utilized in EI (Part C) research and practice (Barnett, Lentz, Bauer, & Macmann, 1997; DEC, 2014; Fleming et al., 2011; Podvey, Hinojosa, & Koenig, 2013). Bronfenbrenner (1979, 1986, 1993) engaged the development of children from a systems' viewpoint indicating, that, while the active involvement of the family is central to the child's development, external forces serve to assist or detract from the child's development as well. This model identifies distinct systems that influence child development through forces apparent and unapparent (Hartwood, Miller, & Vasta, 2008). Apparent forces described the visible relationships and interactions between the provider and family, and between the family and the child (Barnett, Lentz, Bauer, & Macmann, 1997). Less apparent forces included deeply-rooted cultural beliefs and the history of social and individual experiences (Bronfenbrenner, 1979, 1986, 1993). The individual systems and their influence for child development presented as five general systems including the microsystem, mesosystem, exosystem, macrosystem, and chronosystem. Presented below is an explanation of Bronfenbrenner's (1979, 1986, 1993) Ecological Systems Model.

System 1: Microsystem - The environmental system that has direct contact with the child in daily interactions.

System 2: Mesosystem - The interactions between the members of a child's microsystem, namely the relationships that occur within the child's direct environment.

System 3: Exosystem - The overall social systems that the child does not directly interact with, but have influence on the social aspects of the child's development. For instance, the policies and regulations utilized within the EI (Part C) model, careers or activities of family members would represent the wide, non-direct, influences of the exosystem.

System 4: *Macrosystem* - The considerations of culture and subculture in which the child lives, which included the ritualistic behaviors reflecting the beliefs, values, and traditions of the family and society.

System 5: *Chronosystem*- The historical context of societal manifestations, or, in other words, a consideration of the changes experienced due to the "passage of time" (Hartwood & Miller, 2008, p. 8).

Brendtro (2006) expressed that "[b]y its very nature, ecological theory is wide-ranging and multi-faceted" (p. 165). Yet, through a scan of the ecology, the most important factors become apparent (Morse, 1985). EI (Part C) engaged an ecological view of service delivery and research which has indicated apparent forces relevant to the providers' inclusive family-centered practices and use of family routines in EI (Part C) (DEC, 2014). An observed transition from child-centered to family-centered practices indicated the requisite to blend a second theory to guide the review of the literature. In the following section, the review further positioned the embraced elements of Transition Theory (Anderson, Goodman, & Schlossberg, 2012; Schlossberg, 1981, 1984).

Transition Theory

Transition Theory provided a theoretical lens through which the observed variables that serve to enhance or detract from an individual's or the situation's successful transition can be analyzed (Anderson, Goodman, & Schlossberg, 2012; Schlossberg, 1981, 1984). Developed from a counseling perspective, the theory assisted clients through the counseling relationship by affording an understanding of the assets and liabilities involved in the particular transition (Schlossberg, 1981, 1984). The Transition Model employs a three-step process of (a) identifying the transition, (b) identifying coping resources, and (c) strengthening the resources that move adults through the transitional phases (Anderson, Goodman, & Schlossberg, 2012; Goodman, Schlossberg, & Anderson, 2006; Schlossberg, Waters, & Goodman, 1995). For instance, Bejerano (2015) identified that self-esteem was the greatest predictor of success for students transitioning from high school to college. The author indicated that rather than considering adaptation (or transition) from a single measure of the psychological processes of the individual, an examination that included the social processes that occur within the adaptation (or transition) provided a well-rounded viewpoint for discussion and understanding (Bejerano, 2015).

Reviewed research in EI (Part C) indicated a period of transition occurred between the provision of services from a more clinically oriented (or child-directed) model to that of a firm family-centered system (Dunst & Bruder, 2014; Campbell, Chiarello, Wilcox, & Milbourne, 2009; Colyvas, Sawyer, & Campbell; 2010). Transition Theory, in this particular study, engaged the literature from the individuals involved in the system (providers and families of I/Ts with ASDs). Additionally, Transition Theory provided an element of depth from which to engage the ecology, or social processes and relationships, occurring within the EI (Part C) system. The theoretical basis of Transition Theory provided a roadmap for exploring the variables related to the transition occurring within the EI (Part C) Program.

Burkhart and Hogan (2015) studied female veterans transitioning from the military to civilian life. In their qualitative study, a type of dual functioning designated as veteran-citizen was described by the participants. Families indicated a period of transition with regard to navigating the challenges associated with a diagnosis and treatment of ASD (Boyd, McCarty, & Sethi, 2014; Dunst, Bruder, & Espe-Sherwindt, 2014; Francois, Coufal, & Subramanian, 2015). This dual role mentality was also indicated in families of children with ASD perceptions of a parent-therapist mentality (Granger, des Rivières-Pigeon, Sabourin, & Forget, 2012). Therefore, Transition Theory allowed for the exploration of literature that highlighted the dual-roles and interactions between and within systems that serve to create further understanding within the current situation, or transitions, under study (Anderson, Goodman, & Schlossberg, 2012).

Three types of transitions defined include (a) anticipated, (b) unanticipated, and (c) non-events (Anderson et al., 2012). Anticipated transitions are those expected by the individual, while unanticipated transitions are the entirely unexpected events experienced in life. Non-events described the expected events or experiences that do not manifest (Anderson et al., 2012). Providers of EI (Part C) experience the expected, anticipated transition from child-directed service delivery to that of family-centered supports (DEC, 2014). However, providers are working within the ecology of the family, which is experiencing an unanticipated transition of the diagnosis of an ASD. The experience of individuals within the transition was described through phases of (a) moving in, (b) moving through, and (c) moving out (Anderson, Goodman, & Schlossberg, 2012). According to the authors, a review of the interrelatedness of assets and liabilities is required to conceptualize the transition in depth. Assets and liabilities identified "The 4 S System" (Anderson et al., 2011, p. 33). The authors described this system as:

1. The *Situation* - what is happening?
2. The *Self* - the individual, considering personality and life experience.
3. The *Supports* - the resources available to assist the individual through the transition.
4. The *Strategies* - the individual's ability to cope and navigate the transition.

While Evans et al. (2010) reported that Schlossberg's Transition Theory seldom appeared in higher education research, Griffin and Gilbert (2015) advocated the potential for identifying transitions and providing important insights for advancing theory and practice. Reflecting the more recent opinion, transition frameworks have been utilized in studies of veterans returning from Afghanistan (Burkhart & Hogan, 2015; Kato, 2011), and the transitions of veterans into higher education (Griffin & Gilbert, 2015; Schiavone & Gentry, 2014; Wheeler, 2012; DiRamio, Ackerman, & Mitchell, 2008). In addition to the surge of use of Transition Theory's work with veterans, the theory employed exploration of other diverse populations' experiences of transition to higher education (Rains, 2009; Bejerano, 2015; Pendleton, 2008; Westin, 2008). It appears that Transition Theory has become a practical theory for evaluating the shifts experienced by individuals within an ecological system of influence (Bejerano, 2015). Despite the appearance of the theory within the literature, there were no studies located that observed the transition from clinical models to that of firm family-centered practices of providers within EI (Part C). In the following sections of this review, Transition and Ecological Systems Theories together position and inform the current study.

Ecological-Transition Comprehensive Framework

While the Ecological Systems Theory of development asserted a systemic approach to understanding the evaluation of development in context, Transition Theory appears to complement the process with a more thorough examination of the individuals' experience within the transition. The following graphical representation (Figure 1) will highlight the review of the literature by the framework of "The 4 S System" in an ecological context (Anderson et al., 2012, p. 33).

Through a guiding framework of Ecological Systems and Transition Theories, the literature review conceptualized the situation or the ecological review of EI (Part C) for the families of I/Ts with ASDs. The review of the "self" examined the research surrounding providers and families of I/Ts with ASDs in EI (Part C). In order to engage the literature of supports afforded by EI (Part C) providers to families of I/Ts with ASDs, the review included the developmentally appropriate practices of EI (Part C) and treatment modalities for ASD. Finally, strategies reviewed both the recommended and utilized methods employed in the intervention of

I/Ts with ASDs. Of particular interest to this study were family routines and providers' support of those routines in the context of EI (Part C) home visit sessions.

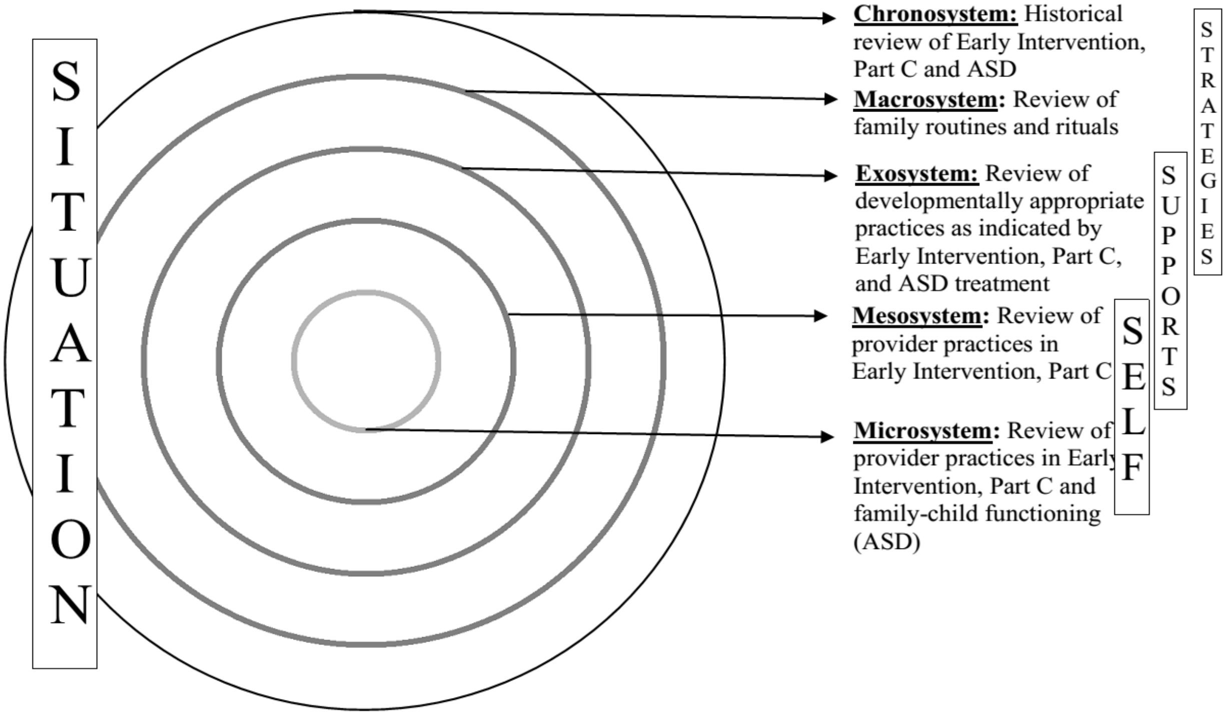

Figure 1. The 4 S System in Ecological context. This figure represents the framework used to review the literature surrounding the situation of Early Intervention (Part C) for infant and toddlers with ASDs.

EI (Part C) Program

The recognition of need for EI (Part C), granting a provision of supports for I/Ts and their families with disabilities, stemmed from a history of the marginalization of individuals with disabilities in the education sector. Belcher, Hairston-Fuller, and McFadden (2011) indicated that in 1970, "only 20% of children with disabilities were educated in public school settings" (p. 36). In fact, numerous states had laws that prohibited children with mental and intellectual disabilities from receiving a public education (Office of Special Education Programs [OSEP], Archived). In order to meet the educational needs of individuals living with disabilities, Congress passed the Education for All Handicapped Children Act (PL 94-14) in 1975, ensuring a Free and Appropriate Public Education (FAPE) to all children with disabilities, ages three to 18. The recognition for the early potential of neurological growth experienced in infancy and toddlerhood turned responsiveness toward earlier intervention opportunities (Belcher et al., 2011).

The following decade saw public attention turn toward the youngest of children with the passage of PL 99–457, Education of the Handicapped Act Amendments of 1986. In this law, Congress specified an *urgent and substantial need* to aid I/Ts from the ages of birth to three with disabilities or developmental delays. Adams, Tapia, and The Council on Children with Disabilities (2013) stated that:

> [o]ver the past half century, research in the neurosciences and in child development have placed an increasing priority on the support needed in the first few years of life as brain growth and function are being shaped for future ‘scaffolding’ of skills and knowledge. (p. e1075)

This act identified, specifically, the need to provide developmental support to families of I/Ts with disabilities, thereby reducing the costs associated with later special education services (PL 99–457). Additionally, through maximizing the early years of brain development, a reduction in the need for institutionalization through increased independence served as an impetus for the passage of further amendments (Belcher, Hairston-Fuller, & McFadden, 2011; Goode, Diefendorf, & Colgan, 2011).

In 1990, The Education of the Handicapped Act officially became the Individuals with Disabilities Education Act (IDEA, PL 101–476). This change, sanctioned by the Education of the Handicapped Act Amendments of 1990, included a reauthorization of EI for I/Ts designated as the (Part C), formerly Part H, of IDEA (Belcher et al., 2011; OSEP, Archived). Periodic reauthorizations of this act were required in order to incorporate relevant research into the practice of working with families of I/Ts with disabilities (Neas & Mezey, 2003). For example, 1997 saw a reauthorization of IDEA supporting inclusive education measures (Gartner & Lipski, 1998). Another reauthorization followed in 2004 with passage of the Individuals with Disabilities Education Improvement Act of 2004 (IDEA, PL 108-446). This update to IDEA included, for the first time, an accountability measure that requires states to report on the ability of the services to enhance the capacity of the family to meet the needs of their children (§631 [a][4]; Belcher et al., 2011).

The United States Department of Education [DE] released the Final Regulations for IDEA in an article published in the Federal Register on September 28, 2011 (DE, 2011). The regulations specified several changes to the EI (Part C) Program, reflecting revisions aimed at service and outcome improvement for I/Ts with disabilities and their families (DE, 2011). Specific foci include changes in accountability provisions, efforts to clarify accessibility requirements and financial benefits for families (DE, 2011). In order to ease the cost of intervention, no-cost protection rights were defined as an entitlement provided to parents of children with disabilities (DE, 2011). For example, coordination of services for eligible I/Ts served to support families at no cost under the mandate of 34 CFR Part 303.23.

In 2012, Congress allocated $489,427,000 to provide EI services at the state level (Danaher, Goode, & Lazara, 2011). Danaher et al. reported that the number of children served in the EI (Part C) system has steadily increased since the program's inception. In 1990, 194,363 I/Ts received services through the EI (Part C) Program, representing 1.77% of the population (Danaher, Goode, & Lazara, 2011). In 2009, this number rose to 348,604 I/Ts, or 2.67% of the population (Belcher et al., 2011; Danaher, Goode, & Lazara, 2011). Despite the continued increase in participation in the EI (Part C) Program, Goode, Diefendorf, and Colgan (2011), through The National Early Childhood Technical Assistance Center [NECTAC, 2011], reported that 13% of I/Ts have delays that would make them eligible for EI (Part C) services. Rosenberg, Zhang, and Robinson (2008) reported that children in minority populations, specifically children of Black and Hispanic descent, often remain underrepresented in the EI (Part C) system.

Federal components to the EI (Part C) Program specify the need to recognize and act when an I/T shows signs of a developmental delay (CDC, 2016b). Therefore, many programs position toward increasing the ability of pediatricians, social service agencies, and preschool personnel to become more adept at recognition and more awareness of EI (Part C) services (Adams, Tapia, & The Council on Children with Disabilities, 2013). For example, the Center for Disease Control and Prevention's (CDC, 2016b), *Learn the Signs, Act Early*, is an internet resource that advocates the need for parents and caretakers to monitor their child's development and refer families to services when development deviates from the typical developmental trajectory. The observed benefits of intervening early in childhood has contributed to the momentum behind advanced awareness campaigns and federal provision of monies to support infants, toddlers, and their families (Belcher et al., 2011; CDC, 2016b). A referral to the EI (Part C) Program initiates a multi-disciplinary evaluation for qualification of services. A service coordinator assigned to the family oversees and coordinates the process for the family (Boyer & Thompson, 2014).

While the EI (Part C) Program is a federal program, individual states determine the eligibility criteria which indicates qualification for services (DE, 2011). Through the evaluation process, children found to either possess a medical condition or developmental delay(s) entitles them to services. When a child qualifies to receive EI (Part C) services through evaluation, supports selected include necessary professionals of varying disciplines to support the family in the creation of an Individualized Family Service Plan (IFSP). The IFSP is the guiding document of service delivery, similar to the Individualized Education Plan (IEP) for school-aged children. This legal document, generated through an IFSP meeting, considers the child strengths, family concerns and priorities, evaluation findings, and current child and family functioning as necessary inputs for the selection of, and recognized need for, the specific supports to the family (Boavida, Aguiar, & McWilliam, 2014). The family supports offered through EI (Part C) include intervention and guidance through EI Service Providers.

EI Service Providers

EI (Part C) Providers (hereafter, referred to as "providers") are individuals deemed qualified by state agencies and licensing agencies, in their respective fields, to provide developmental support services to I/Ts (Danaher & NECTAC 2010; IDEA Part-C, 2011, Sec. 303.31). Providers can be, but are not limited to, special instructors, speech and language pathologists, physical therapists, and occupational therapists (IDEA Part-C, 2011, Sec. 303.31). There are 16 disciplines involved in EI provider services; however, the most widely utilized service disciplines are special instruction, speech and language pathology, occupational therapy, and physical therapy (Hebbler, Greer, & Hutton, 2011; Raspa at al., 2010).

Special instructors. A special instructor (SI) is an EI provider who serves to "design learning environments and activities that promote the I/T's acquisition of skills in a variety of developmental areas, including cognitive processes and social interaction" (IDEA Part-C, 2011, Sec.303.13, p. 110). This includes, but is not limited to, curriculum planning, collaborating with families, and working with the child. SI's possess a working knowledge of I/T development and assist families through education of the developmental delay or disorder. Boyer and Thompson (2014) stated that an understanding of both typical and atypical development in the context of environmental family systems is a crucial element to the provision of SI support to families.

Speech and language pathologists. Speech and language pathologists (SLP) are providers who facilitate the process of acquiring developmental communication and language skills of I/Ts (IDEA Part-C, 2011, § 303.13). SLPs offer families the opportunity to recognize the environmental modifications that promote the development of I/T's language and communication skills (American Speech-Language-Hearing Association [ASHA], 2008). Boyer and Thompson (2014) asserted the role of SLPs is the integration of communication intervention into the everyday activities and routines of family life for the potential to maximize opportunities for the child's communication development.

Occupational therapists. IDEA Part-C, 2011, Sec. 303.13 defines the role of an Occupational Therapist (OT) as an EI provider who addresses the functional needs of an I/T with a disability related to adaptive development, adaptive behavior, play, sensory, motor, and postural development. OTs in EI (Part C) work with the family to improve the child's functional ability to perform tasks in home, school, and community settings. Boyer and Thompson (2014) asserted that the role of an OT is to increase the ability of the child in their independence in life's functions, or the occupations of childhood. For example, the occupations of childhood include the ability to play and manipulate toys, feeding, and dressing.

Service coordinator. A Service Coordinator (SC) is responsible for the care and provision of services provided to the family. SC is a mandated service for each child qualifying for EI (Part C), provided at no cost to families (§303.34[a][2]). Service coordination is an active, ongoing process that assists and enables families to access services and assures their rights, procedural safeguards, and provides families with the necessary linkages to community resources for child and family support (§303.34[b][1]). The SC is responsible for the coordination and communication of the services provided to the family, which work as a unified support to the child's and family's development (Boyer & Thompson, 2014).

EI Teams

The various therapy specialties work as an EI team, recommended in equal collaboration with the family, supporting developmental outcomes for children identified as delayed or diagnosed with a qualifying condition (Boyer & Thompson, 2014; DEC, 2014). There are several identified teaming models for EI (Wooddruff & McGonigel, 1998). Boyer and Thompson (2014) identified the central features associated with differences in teaming approaches. The differences appear to reflect the amount, frequency, and roles of team members in addition to the collaboration between service disciplines. The Division for Early Childhood (DEC) of the Council for Exceptional Children (CEC) outlined the elements that are recommended for teaming approaches in EI as "those that promote and sustain collaborative adult partnerships, relationships, and ongoing interactions to ensure that programs and services achieve desired child and family outcomes and goals" (p. 14). The DEC (2014) further stated that frequent collaboration, sharing of expertise and knowledge, and communication are recommended between the team to achieve the identified outcomes and goals of the family. Decision-making in the developmental contexts of infancy and toddlerhood require effective teaming, collaboration with the family, and specific knowledge of typical and atypical development (DEC, 2014).

Developmentally Appropriate Practices in EI (Part C)

Developmentally appropriate practices for the provision of EI (Part C) services for I/T populations include the consideration of relationships, natural environments, and transfer of learning. The DEC (2014) described the purpose of the recommended practices with the intention "to help bridge the gap between research and practice by highlighting those practices that have been shown to result in better outcomes for young children with disabilities, their families, and the personnel who serve them" (p. 2). The DEC (2014) expressed that all intervention providers must "have foundational knowledge of developmentally appropriate early childhood practices" (p. 3). These practices recommended by DEC (2014) display the projected aim of the EI (Part C) Program to fully meet the needs of the families in the support of progressing their child's development in developmentally appropriate ways.

The National Association for the Education of Young Children ([NAEYC], 2009) described the current curricular challenges that affect young children which included learning gaps, disconnected education for preschool and elementary children, and teacher knowledge and decision-making in a developmental context. NAEYC (2009) adopted a position statement, *12 Principles of Child Development and Learning that Inform Practice*, which highlighted educator responsibilities to these challenges starting in infancy throughout early childhood. Educator responsibilities included: (a) the knowledge to make effective decisions for children based upon the understanding of typical development, (b) the understanding of the individual child and responsiveness to these special situations, and (c) the respect for the cultural and familial aspects of each child's life. The EI (Part C) Program further recognizes the roles and responsibilities of preparing families to understand and provide support for their I/T with developmental delays or disabilities as they transition to the formal educational system through recognized elements of developmentally appropriate practices (§631 [a][4]).

Recognition from both NAEYC (2009) and the DEC (2014) indicated the essential components of: (a) attaining developmental knowledge within the field and (b) respect for the autonomy of family choice. Therefore, services typically occur in the context of the family, in the environment in which the child functions on a day-to-day basis. Developmentally appropriate practices in EI (Part C) allow for the progression of child development in the context, or natural environment, of the family (§303.126). Dunst and Bruder (2014) defined the natural environment as “the participation of I/Ts with developmental disabilities or delays in the everyday family and community activities and settings, which children without disabilities or delays typically experience” (p. 122).

Natural environments. Shonkoff, Phillips, and The National Research Council Institute of Medicine (2000) expressed that “young children’s relationships with their primary caregivers have a major impact on their cognitive, linguistic, emotional, social, and moral development” (p. 341). Participation in the natural environment of family activities and routines offer learning opportunities in all areas of development (Swanson, Raab, & Dunst, 2011). Wilcox and Woods (2011) further expressed that:

> When a child’s participation is restricted, so are the learning opportunities available within affected activities/routines because (a) the child is unable to engage in experiential learning and (b) the opportunity to learn through interactions with a caregiver or other interactive partner is limited. (p. 366)

Therefore, in EI (Part C), the caretakers encourage the child's developmental progression in the natural environment of the family through the seamless integration of developmentally based supports (DEC, 2014; Wilcox & Woods, 2011).

Developmental models of early childhood, as defined by Vygotsky (1978), included the concept of the "zone of proximal development" (p. 32) in which the child's developmental opportunities are carefully guided by the adult to increase mastery. Sameroff and Fiese (2000) indicated that the interplay of nature and nurture served to advance the development of the child in this process. More specifically, the authors expressed that the genetic and developmental capacities of the child interact with the parental capacity to allow for the execution of carefully scaffolded tasks, leading to eventual independent performance and mastery. Motivation, according to this concept, stems from the mastery of developmentally attainable tasks practiced and advanced over time (Berk & Winsler, 2009; Bodrova & Leong, 2006). EI (Part C) designates that the transfer of learning occurs from the provider to the family and from the family to the child (Colyvas et al., 2010). More specifically, the provision of support services extends to assisting the family in their ability to bolster their child's development within the natural environments of the family. This transfer of learning highlights the role of the family as the consistent means for the child's advanced development over time. For a child developing atypically, experiencing a developmental delay or disability, the supports provided by EI (Part C) highlight the family's ability to navigate the challenges of development in order to provide additional opportunities for developmental progression in the context of the child's natural environment.

Adams et al. (2013) identified that the EI (Part C) Program included biology and experience as factors that potentially influence I/T's overall development. In a review of the EI

(Part C) Program, Adams et al. identified two central features that drive EI (Part C) service delivery. The first included a recognition for optimal early development, which encompassed the facilitation of nurturing relationships between the child and caregiver. Additionally, the EI (Part C) Program implemented a dedication to assist families in their understanding of their I/T's needs while providing the necessary supports in order to nurture the family unit (DE, 2011). The components highlighted by Adams et al. described the EI (Part C) Program's purpose, which serves to build the family capacity in order to meet the needs of their child through a family-centered approach to service delivery.

Family capacity-building. A stated purpose of the EI (Part C), Program is to "build the capacity of families to meet the special needs of their child" (§631 [a][4]; Hebbeler et al., 2011). These family-capacity building practices have been defined in the literature as the participatory and collaborative practices that enhance the family's ability to guide their child's development (Kashinath, Coston, & Woods, 2014; Knoche, Kuhn, & Eum, 2014; Salisbury & Cushing, 2013; Schertz, Baker, Hurwitz, & Benner, 2011). The literature often describes the use of participation and collaboration as a "triadic" interaction (Klein & Chen, 2008; Salisbury & Cushing, 2013). Triadic interactions were comprised of the combined interactions of family, child, and provider during home visit sessions (Klein & Chen, 2008; Salisbury & Cushing, 2013). More specifically in triadic interaction, the family directly interacts with the child as the provider coaches their interactions to include intervention opportunities for developmental progression and family capacity building (Klein & Chen, 2008; Salisbury & Cushing, 2013).

Salisbury and Cushing (2013) conducted a comparative, qualitative study to examine the differences between triadic interaction and provider-led interaction in EI (Part C) home visit sessions. Findings exposed both similarities and differences between the two approaches. The authors contended that a provider-led approach proved effective to some degree; however, triadic sessions, where the caregiver was in the lead, engaged, and focused on the child, produced significantly more opportunities for progressing the child's development (Salisbury & Cushing, 2013). The identified ability of triadic interaction to promote the frequency of caregiver-child interactions suggests an interactional relationship necessary for the promotion of building family capacity.

A family-centered approach. Bruder (2010) stated, "Every child is a member of a family (however it defines itself) and has a right to a home and a secure relationship with adults" (p. 341). EI (Part C) support services are grounded in the understanding of child development and guided through the recommended practices which include a family-centered model of service delivery (DEC, 2014). Family-centered practices recommended by the DEC (2014) aim to respect family values by involving families in the selection and implementation of activities designed to strengthen the interactions that advance child development.

Trivette, Dunst, and Hamby (2010) added that a family-centered system is one that assists families in the obtainment of resources and supports needed. Additionally, family-centered practices are responsive and flexible in the care provided to the child regarding family culture, requests, and desires for their child. Mott and Dunst (2006) examined the provision of resources to parents in Pennsylvania. The authors found that when parents utilized resources provided by EI (Part C) providers: (a) greater satisfaction with the program and provider was reported, (b) a sense of empowerment and personal control were exhibited, (c) the parents indicated a feeling of support in the parenting of the child and, (d) greater child developmental progress was observed (Mott & Dunst, 2006).

An integral component of EI (Part C) service delivery focused upon including the child’s caregivers as a crucial element to the child’s development. Adams et al. (2013) asserted that caretakers are “change agents” (p. e1077) that constitute the majority of time spent with the child; thus, services are targeted to increasing the capacity of the caretakers to progress the development of the child. NAEYC (2011) further stated the research-supported understanding that I/Ts develop through the influence of the most significant adults and important relationships in their lives. Through a providers’ ability to strengthen these relationships, the child is afforded the trust and security that provides a robust environment for development to occur (Fein, Gariboldi, & Boni, 1993). Therefore, success in the EI (Part C) Program is heavily dependent upon families serving as active and equal participants within all aspects of intervention planning. This participation includes the required decision-making process and care of their children (NAEYC, 2009). The inclusion and strengthening of the family-child interactions, through positive provider-family interactions in the natural environment, provide opportunities for relational learning and development to emerge (DEC, 2014).

Additionally, families reported heightened self-efficacy and empowerment in the ability to guide their children when family-centered practices are employed (McWilliam, 2012; Popp & You, 2014). The transfer of learning described in the recommended practices extends to that of the interactions that occur during home visit sessions recommended through the positive collaboration between providers and parents (DEC, 2014). The DEC (2014) explained “Practitioners engage the family in opportunities that support and strengthen parenting knowledge and skills and parenting competence and confidence in ways that are flexible, individualized, and tailored to the family’s preferences” (p. 9). Additionally, “[p]ractitioners build trusting and respectful partnerships with the family through interactions that are sensitive and responsive to cultural, linguistic, and socioeconomic diversity" (DEC, 2014, p. 9). Campbell (1997) described the process of coaching as a means to encourage active participation and collaboration with the family.

Coaching families in EI (Part C). Coaching is a process that involves the exchange of information and abilities between a coach and a coachee. Rush and Sheldon (2011) described that coaching entered into the language of EI in 1997, when Campbell suggested a shift from child-directed services to that of a coaching model supporting families in supporting their children. Therefore, coaching in EI (Part C) is a "relationship-based process that is used to improve existing skills, develop new skills, and build the competence and confidence of the coachee [the individual being coached] to achieve desired or intended outcomes" (Rush & Sheldon, 2011, p. 3). Despite numerous research studies on the topic, it has been identified that a general lack of consensus is apparent in defining coaching models (Artman-Meeker, Fettig, Barton, Penney, & Zeng, 2015; Kemp & Turnbull, 2014;). Kemp and Turnbull (2014) indicated that an element of confusion exists regarding the actual practice of coaching and the intended effects as a measurable outcome of the practice. The authors asserted that in order for effective measurement of the coaching model, a clarification of the term is essential (Kemp & Turnbull, 2014).

Brown and Woods (2015) acknowledged that the literature often uses the terms of coaching and training interchangeably. The authors further clarified the terms through defining training as, providing parents with preset intervention strategies within a predetermined context. Highlighting the difference in approaches, Brown and Woods (2015) defined coaching from an element of collaboration that encourages the use of typical family routines as context for intervention. Despite the many definitions of coaching, central components appear to shape the process of coaching (Brown & Woods, 2015). For example the authors indicated coaching to include: (a) the desires of the family, (b) the process of collaboration, and (c) a systematic process of sharing knowledge and relationships between the family and the provider, exemplify the process of coaching for the benefit of the family in their child's development. The lack of a cohesive definition of the term does not appear to dampen the efforts of research on coaching. An expanded literature base offered support for the benefits of coaching as both a parental support model and as a provider mentoring model (Fox, Hemmeter, Snyder, Binder, & Clarke, 2011; Snyder, Hemmeter, & McLaughlin, 2011). Penn State University (2016) further described the importance of coaching through the intentionality that it creates through the process of achieving childhood developmental outcomes. Observed benefits of coaching have been described as increased parental capacity to include and meet the needs of their child (Brown & Woods, 2015; Foster, Dunn, and Lawson, 2013; Graham, Rodger, and Ziviani; 2010; 2014). Through the systematic exchange afforded through the coaching process, the benefits of EI (Part C) may be further understood through the identified outcomes of the EI (Part C) Program.

Outcomes in EI (Part C)

EI (Part C) recognized the development of the child as a functional measurement process, rather than a skill-based measure (616 [a][2][A]). While standardized assessments of development are utilized in the eligibility for services to show skill-based and age-equivalent scores in comparison to norms, the federal measurement of progress is determined through the functional development of the child. In other words, progress is determined at the federal level with regard to how the child functions in his or her daily, social life. Additionally, family outcomes and satisfaction guide the outcomes of the EI (Part C) Program (20 U.S.C. § 1400 [d][1] [B]).

Child outcomes. Early Childhood Outcomes [ECO], also termed Child Outcomes Summary (COS) data, are mandated through IDEA and generated by each of the states in order to gauge the program's ability to increase the functionality of the child (616 [a][2][A]). Rather than attempting to measure progress as specific developmental gains in specific skill sets, the ECO measurement distinguishes the development of the whole child's functional ability (Early Childhood Technical Assistance Center [ECTA], 2016a). Therefore, measurement blends the typical five developmental domains (adaptive, physical, social-emotional, language, and cognitive skills) into three specific functional categories including, (a) social relationships, (b) knowledge and skills, and (c) taking actions to meet needs (Early Childhood Accountability in Pennsylvania [ECAP], 2007). ECAP (2007) provided a definition of each of these categories:

> *Social relationships* include the ability of the child to build and maintain relationships with adults and other children, increase participation in a variety of settings, understand and follow social rules of the situation, and possess the ability to manage their emotions in an age appropriate way.
>
> *Use of knowledge and skills* refers to thinking, reasoning, and problem solving abilities, the child's ability to engage in early literacy, and use vocabulary to communicate.
>
> *Taking action to meet needs* is the child's ability to take care of their basic needs at an age-appropriate level, such as feeding, dressing, self-care, and following rules related to health and safety.

The ECTA (2015) reported, "In 2013-14, children with delays or disabilities who received services under the Individuals with Disabilities Act (IDEA) showed greater than expected developmental progress. Many children exited the program functioning within age expectations, and most made progress" (p. 1). While the advancements made by many children utilizing the services indicated a positive outcome, an additional measure showed family satisfaction with the program.

Family Outcomes

An explicit purpose within the IDEA is "to ensure that the rights of children with disabilities and parents of such children are protected" (20 U.S.C. § 1400 [d][1] [B]). Each state, in addition to the ECO data, is required to administer a family survey to the parents of I/Ts receiving EI (Part C) services (ECTA, 2016b). *Family Data: Indicator C4 Highlights* (Early Childhood Outcomes Center, 2011) indicated that 90.2% of families reported an increased ability to meet the needs of their I/T due to the EI (Part C) Program. Strengthening family capacity has been crucial to reports indicating parental satisfaction with the EI program (Hebbeler et al., 2011). In a specific study conducted by Popp and You (2014), the authors identified that families who were actively involved in the service planning for their child reported higher levels of satisfaction with the services provided, in addition to heightened scores on assessmentsof self-efficacy.

Hebbeler and colleagues (2007) conducted a longitudinal study over a ten-year period which indicated that early detection and EI resulted in positive impacts on outcomes across the developmental domains of children with disabilities. In this longitudinal study, areas of health, language and communication, cognitive development, and social/emotional development, across a 10-year period, indicated positive impacts. In addition to the overall developmental growth in children, there was an increase in family capacity to meet the needs of their I/T through utilization of EI (Part C) services (Hebbeler et al., 2007).

Pennsylvania's Office of Child Development and Early Learning's, [OCDEL], (2012a) most recent report stated that, from the years 2010-2011, 95% of families receiving EI (Part C) services reported that providers assisted with “ideas of how to support their child’s development at home” (p.49) and “built on their child’s strengths and interests” (p.49). This evidence suggests that providers in Pennsylvania are building the capacity of families and to progress the development of the children that they serve; however, a review of the research presents a system that has not fully embraced a firm family-centered practice (Bruder, Dunst, Wilson, & Stayton, 2013; Dunst, Bruder, & Espe-Sherwindt, 2014; Hodgetts, Zwaigenbaum, & Nicholas, 2014; Swanson, Raab, & Dunst, 2011).

Providers’ Observed use of Family-Centered Practices

In general, research has indicated that there is an overabundance of child-directed versus family-centered approaches to intervention apparent in EI (Part C). For instance, providers in EI (Part C) often spend more time teaching children than teaching caregivers (Campbell & Sawyer, 2009; Sawyer & Campbell, 2012). The descriptions of the deviation from the recommended practices indicated provider perceptions of families, personal beliefs, and an overall lack of preparation in the family-centered model as potential barriers to the full inclusion of the model (Francois et al., 2015; Kellar-Guenther, Rosenberg, Block, & Robinson, 2014).

Provider perceptions of the family. Research suggested that providers’ use of family-centered practices may stem from their impression of the family’s ability or personal characteristics. For example, Fleming, Sawyer, and Campbell (2011) utilized Attribution Theory in order to highlight the families’ specific attributes that enhanced and detracted from the providers’ utilization of family-centered practices. The authors found that “personal characteristics, beliefs, or barriers” (p. 106) may affect a provider's efforts towards teaching caregivers. Considering the influence particular family traits may have on the providers’ efforts, Fleming et al. (2011) found that providers' willingness to teach caregivers was due, primarily, to such family characteristics as the education level of parents, home environments, and caregiver expectations for EI services.

Personal beliefs. Additionally, in review of providers' delivery of service, Campbell and Sawyer (2009) highlighted provider beliefs through the lens of "cognitive dissonance" (p. 327). The authors found that when conflicts arise between the providers' personal beliefs and the recommended professional practice, the provider experiences dissonance and the implementation of a family-centered practice is less likely to occur.

Provider and family emotional needs. Brotherson and colleagues (2010) expanded upon the concept of personal beliefs to include the relational interplay between the provider and family. The authors identified that both families and providers possess emotional needs with regard to the service delivery of EI (Part C). In the study of family-provider relationships, Brotherson et al. (2010) found that the respective characteristics of families and providers served to create either a productive "match" or cause a detraction of the family's relationship with the provider. Such findings suggest that elements of the provider's personal qualities are essential to offering intervention that promotes healthy family functioning (Marquenie, Rodger, Mangohig, & Cronin, 2011; Rodger & Umaibalan, 2011). Additionally, Brotherson et al. (2010) indicated that providers may feel an increased stress from their job often causing a sense of "burn-out" due to emotional needs of families, in addition to their own needs (p. 42). Therefore, the studies indicated that the use of family-centered practices may potentially rest upon providers' judgments of the family's capacity to participate in the EI (Part C) services.

Parental involvement. Dunst et al. (2014) conducted a quantitative study, spanning 22 states, in order to determine if setting (i.e., child care, community setting, or home) offered insight into the family involvement and participation in EI (Part C) services. The authors found that services conducted outside of the home produced lower involvement and participation of the families than in-home service delivery. Additionally, Kellar-Guenther, Rosenberg, Block, and Robinson (2014) explored the level of parent involvement in EI sessions. In this study, the authors compared the participatory actions of parents during sessions. The authors found that while the parent participation observed occurred more often during the EI home visit sessions, their participation was not significantly higher than the participation of parents in more specialized settings, such as provider offices and EI centers (Kellar-Guenther et al., 2014). This finding highlighted that, irrespective of the setting, parent involvement was not rated significantly higher in any one setting than another, adding additional insight into the gap indicated between research and practice of providers in EI (Part C).

Setting and context of EI (Part C) services. Campbell and Coletti (2013) provided further insight into the gap between research and practice, indicated in the settings and context of EI (Part C) service delivery. The authors conducted a study to indicate the providers' ability to correctly identify caregiver-teaching strategies. Using submitted videos of home visit sessions, the authors found that while providers were able to correctly label teaching strategies (such as caregiver practice with provider feedback), they were inclined to implement them in only one setting: play. The authors asserted that research in EI (Part C) should move to identify the providers' ability to utilize family-centered services in the natural environments of the family during their everyday routines.

Mattern (2015) expressed that little research currently exists documenting the implementation of evidence-based practices in EI (Part C) for in-home and center-based situations. In this study, conducted exclusively in Pennsylvania, the author found that providers

(88%) reported a strong belief that they collaborated and communicated with families; however, only 67% of families surveyed expressed a feeling of collaboration and communication in EI (Part C). This discrepancy in perception between providers and parents offers an insight to the disconnected viewpoints of communication between providers and families in EI. Offering additional insight into the setting and context, Mattern (2015) also indicated that parents (50%) and early childhood educators that had an I/T in their care (55%) did not feel the providers supported their intervention choices with research or explanation. Moreover, Mattern (2015) examined the providers' strategies in the natural environment of the childcare setting. Early childhood teachers expressed that providers often removed the child from the natural setting for individualized, one-to-one therapy and did not actively communicate strategies or techniques that would be beneficial for the early educator and child in the school environment. Mattern (2015) identified that instructional strategies, such as sharing information with the family (and early childhood educators) are essential in order to promote carry-over between visits.

Provider preparation. In the research conducted through the study of education preparation of providers in EI (Part C), the vast majority of studies indicated that providers are under-prepared for functioning in a family-centered system (Bruder & Dunst, 2005; Brook, Sawyer, & Campbell, 2009; Campbell, Chiarello, Wilcox, & Milbourne, 2009; Campbell, Sawyer, & Muhlenhaupt, 2009). Studies dating back a decade have indicated that providers in EI (Part C) are serving families of I/Ts with developmental delays and disabilities with little to no training in family-centered systems (Dunst & Bruder, 2005). Chen, Klein, and Minor (2009) indicated that, in online studies, few higher education programs offer content in severe disabilities or EI (Part C) preparation. In addition to the research conducted with online model of higher education, there is a general indication that EI (Part C) requires preparatory support through both online and traditional models higher education (Dunst et al., 2014).

Sawyer and Campbell (2009) conducted a study including the belief systems of preservice students, faculty in higher education, and providers in EI. The authors found that faculty rated family-participation of higher importance than did the providers or pre-service students; however, all three groups rated more non-participatory practices as more important than practices of family-participation. Of particular interest in this study, preservice students in the traditional higher education settings showed strong beliefs in the child-centered models, which lies in direct contrast to the model set forth by EI (Part C). This study further highlighted the gap between the research and practice apparent in the EI (Part C), through a lack of preparation in the family-centered model of higher education.

Lack of curricular/preparatory experiences. More recently, a study conducted by Francois et al. (2015) found that SLPs were not prepared to function within a family-centered system through their curricular experiences in higher education. Several barriers were discussed in the study which included lack of access to knowledgeable faculty and staff, in addition to funding and limited practicum settings. The authors asserted that “[a]lthough the mandate for implementation of family-centered service delivery in natural environments is not new, preparation of SLPs for birth to three service provision has not changed substantially in the past decade” (p. 183). The authors indicated that elements of coaching parents in family-centered models must be implemented into the curriculum of the higher education sector in order for effective delivery of EI (Part C) services. The authors asserted that providers must have a firm understanding of the family-centered system in order to support families by strengthening family capacity to enhance their child’s development.

Confidence and competence of providers. With the indication of a general lack of preparation for the providers in EI (Part C), the barriers identified are a general lack of confidence and competence among providers. A mixed-methods study conducted by Fleming et al. (2011) indicated that, overall, providers did not fully understand participation-based practices of family inclusion and family capacity-building. The authors asked participants to describe participation-based services to a new colleague. Their findings indicated that across the participant providers, three elements of participation-based services were generally missing from nearly all participants, including: (a) the utilization of routines and caregiver activities as the context for services, (b) the role of the provider to teach the caregiver, and (c) the role of the caregiver to work with the child. Additionally, through video review, the authors found that providers often utilized contrived settings for intervention versus the routines of the family. This study indicated a low level of competence among the providers with regard to participation-based and family-centered service delivery (Fleming, Sawyer, & Campbell, 2011).

Bruder, Dunst, and Mogro-Wilson (2011) indicated that providers often judged themselves as more confident than competent in their family-centered practices. Bruder and Dunst (2015) applied a consumer science perspective to judgements of provider confidence and competence from parents' perspectives. In their study, the authors found that, additionally, parents viewed providers as more confident than competent in family-centered practices as well, reflecting a consensus with Bruder et al.'s (2011) study.

Further, Bruder, Dunst, Wilson, and Stayton (2013) conducted a study discovering that provider preservice preparedness and in-service training often swayed providers' confidence and competence. In fact, in-service training and pre-service preparation served as predictors for their self-efficacy in providing family-centered services to I/Ts in EI (Part C). The authors found that less than one-third of the participants indicated that they were “very well prepared” to work with young children and their families (p. 258). Additionally, the authors discovered that for in-service participation, more than 60% of the participants specified that they received, or sought out, four or less training activities. The authors concluded that a providers who sought out five or more trainings, with the opportunity for mentoring and coaching, appeared to increase their feelings of confidence in their provision of family-centered services. This study indicated that providers often had to seek out training that moved away from the traditional workshop driven delivery in order to expand their skills and abilities in their role as an EI provider (Bruder et al., 2013).

Provider self-reports of family-centered coaching. While the providers’ observed use of family-centered strategies in EI (Part C) has been seemingly limited in the literature, Salisbury, Cambray-Engstrom, and Woods (2012) examined providers’ actual use of coaching to their reported use. In this study, the authors found that the providers were reporting less coaching than was actually happening. In other words, the providers were using coaching strategies but were not necessarily reporting the use. The authors noted an increased use of coaching as compared with the literature base. The observed increased use of coaching was noted as a potential result of wide state-level access to a professional development system. Salisbury Cambray-Engstrom, and Woods (2012) study appeared to show increased benefits in transforming the practices of providers who took advantage of these opportunities.

Summary of Provider’s Observed Use of Family-Centered Practices

The DEC (2014) emphasized the need for providers to possess the knowledge of child development and professional practice rooted in the family-centered model of service. The observed lack of preparation in family-centered practices exhibits that this vision is not yet a reality for EI (Part C). While provider preparation and ongoing support (coaching and mentoring) have been identified as barriers in the family-centered practices, it appears that recent research has responded with studies that aim to gauge methods for improving current EI (Part C) providers' family-centered practices.

Program Responses for the Improvement of Providers' Family-Centered Practices

Bruder (2010) asserted that in order for the EI (Part C) Program to remain a strong support to families, a recognition of the changing family and cultural differences was imperative. Additionally, the author recognized components essential to progressing the field, such as: (a) a cultural shift in the accountability measures across disciplines, (b) a professional development system that recognizes evidenced-based practices, and (c) a push for the future of EI providers to be exposed to the family-centered model in preparation. A recognized need for the shift comes in light of a dwindling financial infrastructure supporting the EI (Part C) Program (Bruder, 2010; Hebbeler, Kathleen, Maureen Greer, & Hutton, 2011). Bruder's (2010) proposed conceptual shift appeared to have received recognition through the research, which has shown support to the improvement of professional development models in EI (Part C).

Additionally, Odom (2009) proposed a model of "enlightened professional development" (p. 59), which assumed a logic model of assisting providers in adopting the evidenced-based practices. The author outlined several dynamic professional development opportunities, including teaming, coaching, communities of practice, and online supports. Snyder, Hemmeter, and McLaughlin (2011) organized the literature of professional development utilizing a historical, four-level, perspective. The levels included: (a) forming, (b) storming, (c) norming, and (d) performing. The authors described the inception of the training model, beginning in the 1990s with the formation (forming) of training modalities. In this perspective, training revolved around the child's skills. This perspective was in contrast to the family-centered practices of providers' support to strengthen family capacity through the family's participation in EI (Part C) services (Snyder, Hemmeter, & McLaughlin, 2011). With the recognition that providers were delivering services to families in a child-centered way, the authors described the next wave of training strategies. *Norming,* described by the authors, focused upon providing training that was workshop-driven, one-time lectures. *Norming* then shifted the focus to requiring more training of providers, or *storming*. With the intention that more is better, the one-time lecture-driven workshop model came dosed in high quantities; however, the authors emphasized, provider practices remained unchanged (Snyder, Hemmeter, & McLaughlin, 2011).

Finally, Snyder Hemmeter, and McLaughlin (2011) contended that EI (Part C) would begin a period of *performing* models in professional development. The period of *performing* constituted a mentored coaching process aimed at the provider performing the role of an EI Provider as guided by evidence-based, developmentally appropriate practices. It appears that Odom's (2009) and Snyder, Hemmeter, and McLaughlin's (2011) urges for movement in professional development became recognized within the research sector. The focus of research has made a shift toward the process of coaching providers and the direct effects on provider practices.

Coaching providers in EI (Part C) family-centered service delivery. Coaching has been reportedly ill-defined in the literature as described earlier in the chapter (Kemp & Turnbull, 2014). In addition to the provider coaching of families, the model has also been used to promote provider practices of coaching. In other words, coaching providers to effectively coach families. More recent studies utilized the model, producing positive outcomes for effective provider coaching (Fox, Hemmeter, Snyder, Binder, & Clarke, 2011; Marturana & Woods, 2012). This sub-section of review aims to identify EI (Part C)'s responses to the identified lack of family-centered coaching practices used by providers.

Artman-Meeker et al. (2015) conducted a review of studies that included coaching in early childhood settings. The authors asserted that "[d]espite the lack of consensus on a definition of provider coaching, there is consistent agreement regarding the characteristics of effective coaching" (p. 184). For example, studies identified essential components of coaching including: (a) planning, (b) observation, (c) action, (d) reflection, and (e) feedback (Conroy, Sutherland, Vo, Carr, & Ogston, 2014; Fox et al., 2011; Hemmeter, Snyder, Fox, & Algina, 2011; Hemmeter, Snyder, Kinder, & Artman, 2011; Rush & Shelden, 2011; Snyder et al., 2011; Woods, 2013). Additionally, Woods (2013) provided a relational approach to coaching in EI (Part C) that added three vital elements, including: (a) the ability to build relationships, (b) the ability to facilitate a reciprocal style of communication, and (c) an ability to plan and set goals for the purpose of implementation. In Artman-Meeker et al.'s (2015) review, the studies presented a majority of research focused upon coaching in early childhood settings. The authors noted that, while the majority of the studies identified a large portion (four of five) of the essential components for coaching, there was little emphasis given for building a coaching partnership or collaboration within the relationships between coach and the coachee. Of the 35 studies identified for the authors' review, however, only three studies focused solely on home-based intervention.

Following a review of the three studies identified, one study focused upon a more clinical approach to intervention (Isaacs, Embry, & Baer, 1982) which was not indicative of the EI (Part C) family-centered approach. The coaching model used in the study focused upon training therapists in their interactions with parents on the variables of praise, providing information, and informing with regard to child compliance in a clinic-based setting. However, the study found parents who received coaching in the clinical setting translated their experiences with the therapist into the home, providing the child with praise and increasing their focus of compliance (Isaacs, Embry, Baer, 1982). The second of three studies focused upon home-based childcare, working with low-income families for literacy development (Koh & Neuman, 2009). The third study encapsulated an EI (Part C) model (Martuana & Woods, 2012).

Martuana's and Woods' (2012) study utilized a Distance Mentoring Model (DMM) that focused upon performance-feedback as a means to improve the practices of providers in EI (Part C) home visiting using a technology-based approach to coaching. In the author's model, the coachees (EI providers) submitted fidelity checklists used to encode videotapes. Coaches assisted coachees in identifying practices that indicated fidelity and areas for improvement. The identification considered their use of embedding intervention into the natural environments of the family and overall coaching strategies. The authors found significant decreases in child-focused intervention and significant increases in the use of family-centered practices (routine-embedded interventions) following an initial workshop and one feedback session with the EI (Part C) providers (Martuana & Woods, 2012). The authors noted that changes were maintained following four feedback sessions. Through this study, a model of coaching the coaches in EI (Part C) appeared as a promising means to promoting a family-centered system of service delivery. Additionally, although coaching indicated in Artman-Meeker et al.'s (2015) review identified an approach to understanding the coaching process for the providers delivering services, a literature base existed that described coaching from the standpoint of providers' use of direct coaching with parents.

Improved provider practices for coaching parents. Graham, Rodger, and Ziviani (2010) enacted an Occupational Performance Coaching [OPC] model that embraced three domains of emotional support, information exchanges, and structured supports (p. 5). Further, Foster, Dunn, and Lawson (2013) also conducted a study with the OPC model expressing that the intention of coaching as one in which providers aim to become problem-solvers in collaboration with the family versus simply telling them what to do. Both studies identified that positive relationships and exchanging information in a way that leads to capacity-building were essential components of coaching families (Foster et al., 2013; Graham et al., 2010).

Knoche, Kuhn, and Eum (2014) examined the coaching process from early childhood settings from the perspective of family coachees. In this qualitative study, coachees reported enjoying the benefits of the coach's, or the EI (Part C) Provider's experience and knowledge as well as the coach's (providers) provision of other resources. Furthermore, families gained empowerment through the coaching relationship and reported experiencing various transformations (Knoche, Kuhn, & Eum, 2014). Although the responses were generally favorable to the coaching process, parents expressed concerns, including: (a) not enough time (b) feelings of judgment, and (c) a general inability to implement strategies through discussion alone. In other words, parents reported that applying strategies in real-world context was difficult after only having discussed those strategies. The authors concluded that hiring standards and professional development of providers should consider the providers' effectiveness in executing coaching practices with families (Knoche, Kuhn, & Eum, 2014).

Graham et al. (2010, 2014) conducted two mixed-methods studies finding that, through OPC, a model of coaching in occupational therapy, several positive benefits were observed. With regard to parenting and inclusion of their child in daily activities, mothers experienced higher levels of self-efficacy and empowerment through OPC coaching. Table 1 summarized the information gathered through the review of studies of coaching practices, which show positive benefits as well as concerns of the individuals that received coaching. Both the parent and provider coaching studies were summarized within the table.

Table 1

Reported Benefits and Concerns of Coaching

Benefits of Coaching	Concerns of Coaching	Research
Coachee utilized the coach's experience and knowledge Expanded provision of resources Empowerment through the coaching relationship Transformation of coach's practice	Not enough time Feelings of judgment Propensity of coaches to describe versus direct the parent through an activity	Knoche, Kuhn, & Eum, 2014
Providers decreased their focus on play		Marturana & Woods, 2012
Coach included more routines including the family home and community		Marturana & Woods, 2012; Foster, Dunn, & Lawson, 2013
Increases in self-efficacy of coachee		Graham, Rodger, & Ziviani, 2010, 2014; Foster, Dunn, & Lawson, 2013
Increased mindfulness of coachee		Graham, Rodger, & Ziviani, 2014; Foster, Dunn, & Lawson, 2013
Lower stress reported by coachees Empowerment in coachees		Graham, Rodger, & Ziviani, 2010
Increased problem-solving strategies of coachees		Foster, Dunn, & Lawson, 2013
Child developmental progress		Brown & Woods, 2015

Following the call for the effective training of providers in EI (Part C), it appears as though the research sector has shifted from that of simply observing practices to ways in which provider practices may be improved (Odom, 2009; Snyder, Hemmeter, & McLaughlin, 2011). The literature suggested that the coaching model may be a positive step forward in shifting the practices of providers in EI, while increasing the family capacity to meet the needs of their I/T. Despite the positive steps forward in the recognition of the coaching model, wide support of coaching practices in the field is generally lacking and states have individual control over the inclusion of such practices (Campbell & Sawyer, 2009; Fleming, Sawyer, & Campbell, 2011; Granger et al., 2012; Salisbury & Cushing, 2013).

Available resources for effective coaching practices. Various resources are available to EI (Part C) Providers in supporting their coaching practices, such as The Technical Assistance Center for Social Emotional Intervention ([TACSEI], 2016) and The Center on the Social Emotional Foundations for Early Learning ([CSEFEL, 2016). These grant-funded programs offer evidenced-based support in the form of video, PDF, and other non-interactive forms. Additionally, Florida State University [FSU] (2016) offers Family Guided Routines Based Intervention [FGRBI]. FGRBI (2016) stated, on the FSU website, that the FGRBI:

> is an ongoing research endeavor that focuses on developing and validating an EI approach that incorporates the (Part C) of IDEA mandates and the recommended evidence-based practices for supports and services for young children with special needs and their families.

These resources offer a wide array of information with regard to home visiting practices for EI (Part C) providers; however, they do not offer direct coaching support readily accessible to all providers. The Autism Navigator (2016) recently became available as a web-based support for coaching parents of I/Ts with ASD; however, this platform would be at cost incurred directly through the providers unless the specific agency or state has purchased the project. It appears as though EI (Part C) is making strides in developing provider practices through the dissemination of information related to coaching and professional development opportunities. However, direct coaching resources for providers are not widely accessible without cost. In the case of families of I/Ts who are diagnosed with an ASD, further challenges to the family-centered model of EI (Part C) may be present.

ASDs

An ASD is a recognized neurological information processing disorder, or neurodevelopmental disorder, estimated at a diagnosis rate of 1:68 children (APA, 2013; CDC, 2016a; Zablotsky et al., 2015). ASDs occur across all socioeconomic, racial, and ethnic backgrounds (CDC, 2016a; Durkin et al., 2010). Clinical diagnosis is made by a licensed professional utilizing the diagnostic criteria of the Diagnostic and Statistical Manual of Mental Disorders, fifth edition ([DSM-5] APA, 2013). The Autism Diagnostic Observation Scale (ADOS) has become widely accepted as the current gold standard for the identification and diagnosis of an ASD (Lord, Luyster, Gotham, & Guthrie, 2012; McCrimmon & Rostad, 2014). Recent changes to the DSM-5 (APA, 2013) have shifted a classification from three foci (social-emotional deficits, communication and language deficits, and stereotypic and repetitive behaviors) into two focuses, including: (a) social interaction and social communication deficits (or social-communication), and (b) stereotypic and repetitive behaviors. The DSM-5's initial focus considers the social-communication deficits in a child's daily interactions (APA, 2013). The social-communication area of diagnosis examines the child's ability to function within pragmatic social constructs, with an emphasis on relatedness to others in their communicative ability using both verbal and non-verbal socially directed communication exchanges (APA, 2013). The second classification described by the APA's (2013) DSM-5 identifies the child's propensity to engage in restrictive and repetitive patterns of behavior. This classification includes the perseveration of objects, vocalizations, and general insistence on sameness to the degree that it interferes with the developmental process (APA, 2013). The second classification also includes a recognition of the difficulties in the individual's ability to process sensory information in typical ways, such as hyposensitive (avoidance of sensory input) to hypersensitive (seeking out sensory input) (APA, 2013).

According to the CDC and Prevention's website, the prevalence of children estimated to be diagnosed with an ASD shows a sustained increase (CDC, 2016a). The most recent release by the CDC (2016a) reported that data collected in the surveillance year of 2010 estimated 1:68 children with an ASD, up from 1:88 from the surveillance of 2008. Boyle et al. (2011) reported that, from the years 1997-2008, ASD prevalence rates increased by 289.5%. To date, the most current estimate expressed 1:68 children diagnosed with an ASD (CDC, 2016a); however, Zablotosky, Black, Maenner, Schieve, and Blumberg (2015) authored a National Health Statistics Report which indicated potential survey discrepancies in this estimate. The authors concluded that previous reports potentially underestimated the full prevalence of ASDs. Following further statistical analysis, the authors reflected a potential diagnosis rate of 1:45 children diagnosed with an ASD (Zablotosky et al., 2015). While these numbers were conveyed with limitations, the report indicated that a specific category of ASD would be added to upcoming survey questions in order to provide accuracy in future surveillance (Zablotosky et al., 2015).

The dramatic, increased prevalence of ASDs is supported not only by improved prevalence measuring, but also by increased screening efforts and awareness programs (Christensen et al., 2016; DeVilbiss & Lee, 2014; Kruizinga, Visser, van Batenburg-Eddes, Carter, Jansen, & Raat, 2014). Organizations, such as Autism Speaks (2016) and the CDC (2016b) have created informative materials to bring awareness to the specific markers that allow for more definitive separation of ASD-specific qualities from typical development and other developmental delays in young children. This differentiation is significant, as ASD has been found to present as overall developmental delays in I/Ts (Bolton, Golding, Emond, & Steer, 2012; Chawarska, Klin, Paul, Macari, & Volkmar, 2009; Mitchell, Cardy, Zwaigenbaum, 2011).

ASDs: I/Ts

The DSM-5 (APA, 2013) classified ASD under an umbrella term of developmental disorders that are observed in early childhood (birth to age four). Only 18% of children with ASD are diagnosed prior to the age of four, indicating that many children are missed in the early identification process (Angie et al., 2015; Baio & National Center on Birth Defects and Developmental Disabilities, 2014; CDC, 2016a; Zwaigenbaum et al., 2009). Organizations, such as Autism Speaks (2016) and the CDC, have created informative materials to bring awareness to the red flags that serve to offer a more definitive separation of ASD-specific qualities from other developmental delays and typical development in I/Ts (CDC, 2015b). With ASD indicators so often interpreted as overall developmental delays, this proactive effort is a crucial step towards making proper distinctions (Chawarska, Klin, Paul, Macari, & Volkmar, 2009). Further support has come from another group, the American Academy of Pediatrics ([AAP], 2013), who have offered their recommendations for more effective identification of risk factors for ASD in I/Ts.

These recommendations include a full developmental screen at 9, 12, 24, and 30 months, with the addition of an autism specific screening tool at 18 and 24 months (AAP, 2013).

Screening tools prove very effective at measuring the behaviors associated with ASD in the early stages of development (DeVilbiss & Lee, 2014). The accessibility of these tools allows for an earlier identification and referral to a qualified clinician for a definitive diagnosis. For example, the Modified Checklist for Autism in Toddlers (M-CHAT) is a widely used tool, is easily accessible, and is free to download at http://www.m-chat.org (Robins, Fein, & Barton, 2009). The M-CHAT has been shown to be a reliable tool to screen for and identify ASD in toddlers as early as 16-30 months of age (Kleinman et al., 2008).

Research indicates that markers can appear as early as nine months of age, providing opportunities for the identification of a future ASD (Feldman et al., 2012; Paul, Fuerst, Ramsay, Chawarska, & Klin, 2011). A more recent study conducted by Veness, Prior, Eadie, Bavin, and Reilly (2014) indicated that differences were apparent in infant behavior as early as eight months. The knowledge in the field is progressing rapidly in terms of identifying markers that separate ASD specific indicators. Tables 2 and 3 provided a condensed research synopsis related to the two identified categories of diagnostic features for ASD in the I/T population. With the current rate of early diagnosis described as low, however, the practices of identification of these markers still have ample room to progress. ASD in infancy and toddlerhood (9-36 months) was reviewed in the following sections in order to place the literature within the context of the study. Namely, behaviors were indicated to define ASDs specifically for I/Ts, which are likely to be apparent in the provision of EI (Part C) service delivery.

Table 2

Early Identifiers of ASD in I/Ts: Social Communication

Identified age	Finding for I/Ts with ASDs	Research
9 months	Fewer speech-like vocalizations, fewer consonant types, and significantly fewer canonical syllable shapes than typically developing infants and toddlers [TDIT]	Paul, Fuerst, Ramsay, Chawarska, and Klin (2011)
	Little interest in faces, lower response to their own name, and lower rates of attention shifting to people than TDIT	Feldman et al. (2012)
12 months	Little interest in faces, lower rates of attention shifting to people, and lower rates of sound/word imitation than TDIT	Feldman et al. (2012)
	Less joint attention and sharing of interests with others than TDIT Low occurrence of gestural communication such as giving, pointing and showing, is significantly lower than TDIT	Veness et al. (2012)
	Attention to more non-social stimuli and shift attention less frequently than TDIT	Hutman, Chela, Gillespie-Lynch, and Sigman (2012)
18 months	Significantly less coordination between a point and gaze than TDIT	Feldman et al., (2012)
	Deficits in functional play. Significant differences in self-directed and other-directed play than TDIT; however, increased object-directed play in ASD	Christensen et al., (2010)
	Social referencing and latency in shifting is significantly lower in toddlers with ASD than TDIT	Cornew, Dobkins, Akshoomoff, McCleery, & Carver, (2012)

	Significantly less typical vocalizations as compared TDIT and those with developmental delays [DD]. Higher distress vocalizations production than TDIT and those with DD. Engaged in significantly less communicative acts to signify joint attention than TDIT and DD.	Plumb & Wetherby, (2013)
24 months	Significantly lower use of all joint attention (basic, associated, and joint visual) than TDIT	Naber et al., (2008)
	Significantly less coordination between a point and gaze, imitate actions less frequently, and point in response to questions less frequently than do TDIT	Feldman et al., (2012)

Table 3

Early Identifiers of ASD in I/Ts: Stereotypic and Repetitive Behaviors

Identified Age	Findings for I/Ts with ASDs	Research
8-24 months	Increased frequency of repetitive behavior with body movement: rocking, rubbing body, stiffened fingers. Objects: rocking, flipping, rolling, moving, licking, clutching, and fixating.	Barber, Wetherby, & Chambers, (2012)
24-30 months	Variation in the types of behaviors exhibited, including the frequency and intensity of behaviors	Branson, Vigil, & Bingham, (2008)

Social-communication deficits. The CDC (2016b) reported overall developmental cues that may indicate the presence of an ASD including an overall lack of sharing interest, lack of response to contextual cues, lack of child’s response to their own name, and lack of coordination of non-verbal communication. Infants at 9-12 months, later diagnosed with an ASD, showed lower, socially interactive involvement in several ways. For instance, Feldman et al. (2012) conducted an initial analysis of their screening tool, Parent Observation of Early Markers Scale (POEMS). In this preliminary study, the authors demonstrated reliable and valid differentiation between I/Ts later diagnosed with an ASD from those who were not diagnosed. The authors reported that within the group of I/Ts later diagnosed with an ASD, parental reports reflected lower incidences of social behaviors, such as: (a) facial interest, (b) shifted attention to people, and (c) responses to their name (Feldman et al., 2012). Further, Paul, Fuerst, Ramsay, Chawarska, and Klin (2011) studied the communicative behaviors of infants at nine months of age. The authors reported lower incidence of speech-like vocalizations, fewer consonant types, and significantly fewer instances of canonical sounds (i.e., baba, mama, dada) for the group of I/Ts later diagnosed with an ASD. Additionally, in the communicative findings, Veness et al. (2014) conducted a longitudinal study on infants from eight months to seven years of age. The authors reported, through repeated measures of communicative and symbolic communication scales, infants as young as eight months showed lower joint attention behaviors (i.e. gesturing) and lower use of communicative behaviors (i.e., requesting).

Social interaction behaviors. Basic joint attention behaviors, such as pointing, sharing interest, and behaviors used to show or display, have been reported to correlate significantly with later diagnosis of ASD (Feldman et al., 2012; Hutman, Chela, Gillespie-Lynch, & Sigman, 2012; Naber et al., 2008; Veness, Prior, Bavin, Eadie, Cini, & Reilly, 2012). Naber et al. (2008) described that as basic joint attention remains underdeveloped (9-12 months), the more complex development of joint attention skills (12-24 months) - such as associated joint attention - take on atypical qualities or fail to develop at all. The higher skill sets required of typical developmental behaviors, such as imitation and coordination, require a socially directed harmonization, or co-regulation (Casenhiser, Shanker, Stieben, 2011; Naber et al.). Casenhiser et al. (2011) described co-regulation as “the natural, perhaps instinctive, effect of one person’s arousal level on another person’s arousal level” (p.224). Therefore, without the harmonization, I/Ts are further developmentally affected through missed opportunities for interaction.

Studies have indicated that social interaction behaviors, such as lack of shifting attention to others decreased interest in faces (or aversion) are noted into 12-36 months (Feldman et al., 2012; Hutman, Chela, Gillespie-Lynch, & Sigman, 2012; Veness et al., 2012). Research indicates that lower social interactions and joint attention, observed in children with ASD, affects the interactive and socially motivated quality of communication (Naber et al., 2008). Naber et al. (2008) indicated that social interactions, therefore, become object-directed, such as a child taking an adult’s hand to a desired item, versus a socially engaged communication of need. This instrumental communication meets the desired needs of the child; however, does not include the use of communicative intent using socially directed means (Gutstein & Whitney, 2002).

Communication behaviors. Early behaviors of I/Ts ranging from 12-24 months found that when fewer communicative intent behaviors were used, a higher likelihood of a later ASD diagnosis was observed (Veness et al., 2012). The study conducted by Veness and colleagues (2012) indicated that receptive difficulties related to communication, including a lack of giving, showing, and pointing gestures, exhibited by infants 12 months of age, significantly predicted the later diagnosis of an ASD. Also reported as a predictor for diagnosis was lacking communicative intentions, such as waving and nodding gestures (Veness et al., 2012). Through these missed opportunities for socially interactive communication, as seen in both imitation of sounds and words in children between the ages of 12-24 months, the development of expressive speech was affected (Feldman et al., 2012; Plumb & Wetherby, 2013). As such, the CDC

(2016b) included elements of speech production, such as unusual prosody, as a red flag for ASDs (CDC, 2016). Elements of communication deficits in early childhood coinciding with later ASD diagnosis were observed in Table 2.

Play behaviors. The lower frequency of joint attention behaviors exhibited, or avoided altogether, along with lack of communicative intent, have significant effects on the overall development of the I/T with an ASD (Christensen et al., 2010; Hutman, 2012). Play, for example, is a significant opportunity for learning in childhood. Christensen et al. (2010) expressed that lower joint attention behaviors show negative effects on play and development for I/Ts. Hutman (2012) described atypical play behaviors exhibited in children later diagnosed with an ASD. The author found that the I/Ts who preferred to attend to non-social stimuli, such as objects instead of adults during play, were significantly more likely to receive an ASD diagnosis. Additionally, Hutman (2012) identified toddlers later diagnosed with an ASD not only preferentially attended to objects in play, but also engaged in more object-directed atypical play. The identified atypical play, depending on the nature, may take the form of what is termed stereotypic and repetitive patterns of behavior (APA, 2013).

Restrictive and repetitive patterns of behaviors. Restrictive and repetitive patterns of behavior describe the fascinations or preoccupations with objects, body movements, and vocalizations (CDC, 2016b; APA, 2013). I/Ts, 9-24 months later diagnosed with ASDs, displayed significantly higher frequencies of repetitive behaviors than I/Ts who were developing typically (Barber, Wetherby, & Chambers, 2012). Most children express repetitive movements in typical development, most notably, between the ages of two and four (Barber et al., 2012). The Ounce Scale: Standards for the Developmental Profiles indicated that at 24 months, a typical measure of development includes the tendency to “empty and refill containers with small blocks, puzzle pieces, large beads, dumping and filling over and over again" (Meisels, Dombro, Marsden, Weston, & Jewkes, 2003, p. 42). Therefore, the classification for ASDs does not focus simply on the presence of repetitive behaviors, but the intensity, frequency, and characteristics of behaviors that are expressed (Barber et al., 2012).

In one case study account, children, aged 24-30 months, exhibited restrictive and repetitive patterns of behavior in varied ways (Branson, Vigil, & Bingham, 2008). It was reported that one child became adamantly fixated on his toy trains, where another expressed rigid body movements while pacing in specific patterns to move about familiar space (Branson et al., 2008). These variations display a critical measure for the diagnosis of an I/T with an ASD. Both frequent and atypical body movements and vocalizations, at an intensity that restricts the typical functioning of the child, must be present for the diagnosis of an I/T with an ASD (Barber et al., 2012).

Additionally, in a more recent study, Rojahn, Barnard-Brak, Medeiros, and Schroeder (2016) conducted a longitudinal study assessing the link between stereotypic behaviors of infants at risk for ASD and later self-injurious behaviors. The authors presented the topic as previously "inconsistent and ambiguous" (p. 156); however, following one year of linear tracking, the authors supported that a link was observed. Although the authors expressed the need for further examination of this topic, initial conclusions support a connection between stereotypic behaviors with later self-injurious behaviors. Table 3 presented several studies and major findings related to the observation of stereotypic and repetitive behaviors in later diagnosis of ASD.

ASD and Families

Behavioral issues associated with ASD have correlated with higher stress levels experienced by the family (Davis & Carter, 2008; Estes, Munson, Dawson, Koehler, Zhou, &

Abbott, 2009; Pozo, Sarria, & Brioso, 2014). Pozo et al. (2014) conducted a study of family well-being in the case of an ASD. The authors found that families' feelings of well-being and "sense of coherence" (p. 442), or the enduring ability to remain confident, showed negative impact in the case of raising a child with an ASD (Antonovsky, 1987). More intense behaviors associated with the disorder, such as self-injurious behaviors, have shown to cause families a great deal of stress in earlier research (Donenberg & Baker, 1993; Lecavalier, Leone, & Wiltz., 2006; Tomanik, Harris, & Hawkins, 2004). More recent studies have taken the focus of identifying the more subtle elements of particular sensory deficits that serve to inhibit a child's functioning within the family unit (Ashburner, Rodger, Ziviani, & Hinder, 2014; Bagby, Dickie, & Baranek, 2012; LaVesser & Berg, 2010; Little, Ausderau, Sideris, & Baranek, 2015).

There is a wealth of literature that suggests that parents of children with ASDs experience stress, fatigue, anxiety, and depression at higher levels than do parents of typically developing children (Estes, Munson, Dawson, Koehler, Zhou, & Abbott 2009; Jeans, Santos, Laxman, McBride, & Dyer, 2013; Montes & Halterman, 2007; Pozo & Sarriá, 2014; Zablotsky, Bradshaw, & Stuart, 2013). Research also indicates that the stressors of parenting a child with ASD can become so persistent that mental health issues may arise (Ekas, Lickenbrock, & Whitman, 2010; Weiss, Cappadocia, MacMullin, Viecili, & Lunsky, 2012). Feinberg, Donahue, Bliss, and Silverstein (2012) reported a 35% rate of depressive symptoms in mothers whose children, at age two, received EI (Part C) services as opposed to mothers of typically developing children.

Research has suggested that parents' self-efficacy has both a direct and an indirect influence on their interactions with their children, and contributes to a general sense of well-being (Feinberg et al., 2012; Trivette, Dunst, & Hamby, 2010). Weiss et al. (2013) indicated that feelings of self-efficacy and social support mediated the stressors of parenting a child with an ASD, affording a sense of “family-hardiness” (p. 1310). “Hardiness” was defined in the literature as a family characteristic that afforded a sense of maintaining control over family life and being able to endure challenges (McCubbin & McCubbin, 1996; VanBreda, 2001; Weiss et al., 2013). A positive level of “hardiness” reflected a feeling of optimism among the family (Weiss et al., 2013). The sensory deficits and challenges presented by children with autism were found to negatively affect the feelings of self-efficacy and empowerment in parents (Foster, Dunn, & Lawson, 2013; Marquenie et al., 2011). Foster, Dunn, and Lawson (2013) further expressed that parents felt inhibited in their ability to include their children in daily-life and family routine activities, due to sensory challenges. The authors described the child’s lack of inclusion as decreased in feelings of self-efficacy and empowerment in parents. The routines of families parenting a child with an ASD appear to carry heavy weight in the overall family functioning.

Family routines. Rodger and Umaibalan (2011) conveyed that family routines and rituals contribute to the “normalcy of life” (p.20). In addition, positive feelings of identity and family well-being correlated with the presence of family participation within these routines (Rodger & Umaibalan, 2011; Segal, 2004; Werner DeGrace, 2003; Wolin & Bennett, 1984). Family routines are considered the consistent and loosely structured activities of the family, described as happening daily, regularly, and predictably (Bagby et al., 2012; Boyd, McCarthy, & Sethi, 2014; Evans & Roger, 2008). Further, family routines described the coordinated overall rhythms that served as the “enveloping framework within which daily lives are given shape and meaning” (Koome, Hocking, & Sutton, 2012, p. 320). Rituals, by contrast, reflect a cultural perspective of the family and the overall “meaning” created through symbolic communication and family connectedness (Evans & Rodger, 2008; Spagnola & Fiese, 2007). The recognition of their impact on family well-being and strength has caused family rituals to become a focus of study within the literature base (Boyd et al., 2014; Marquenie et al., 2011; Rodger & Umaibalan, 2011). By way of traditions, rituals provide a generational component to the identity and belongingness to the family unit (Boyd et al., 2014; Spagnola & Fiese, 2007).

Boyd and colleagues (2014) conducted a synthesis of the occupation-related research that focused on the routines and rituals of families of children with ASDs. In their review, the authors move to merge the concepts of occupations, rituals, and routines by asserting "that by engaging in family routines, families enact cultural values and ideals, meeting instrumental and symbolic goals, structure their daily lives, and share time and occupation together" (p.325). For the purposes of this review, routines, rituals, and occupations will adhere to Boyd's and colleagues' (2014) explanation in order to provide a consistency throughout the study.

The most recent literature in the area of family routines appears to have a strong base in the occupational sciences. Occupational therapists often focus on the ability of the child to participate in and develop a skill base within the occupations of family life (Ashburner et al., 2014; Bagby et al., 2012; Bagatell et al., 2014; Foster, Dunn, & Lawson, 2013; Graham, Rodger, & Ziviani, 2014). The occupation of the parent is to provide developmentally stimulating activities that contribute to the overall functioning of the family unit (i.e., going to work, taking children to daycare/school, maintaining the cleanliness and health of children). Child occupations, in the area of EI (Part C), are considered to embrace the elements of "work" that are consistent with childhood, such as play, dressing, and eating. Occupations of childhood, such as developmental play and taking part in routine activities, serve to foster eventual independence, such as learning to feed oneself, learning to dress oneself, and participating fully in the family unit (Campbell & Sawyer, 2009).

Ausderau and Juarez (2013) conducted a phenomenological study on the mealtime routines of families of children (aged two years and 10 months, to seven years and five months) with ASDs. In their qualitative study, the researchers captured the essence of the stress experienced during family mealtimes. One family described mealtime as such:

> Umm, I make a family, like a dinner, but we rarely sit down together and eat anymore . . . Because it turns into a challenge with him, and then all of the focus is on him, so then his sister ends up finishing her meal while I'm still trying to get him settled enough to focus and even want to try and then my husband tries to help a little bit and then it all falls apart. (p. 318)

The depiction of the difficulties experienced by families of children with ASDs, through the disruption of family routines, displays the essential nature of routine family functioning in this population. Ausderau and Juarez (2013) mentioned an instance described by a family in which mealtimes were adapted through an EI (Part C) provider's guidance; yet, there was no direct mention of the type of accommodation or how the provider's specific accommodation was implemented. While the stress of parenting a child with an ASD has been well recognized, the recommendations of researchers continues to advocate for parent-mediated interventions that serve to enhance family well-being and child functioning in the natural environment (Jeans et al., 2013; Feinberg et al., 2012; Trivette, Dunst, & Hamby, 2010). Despite the push for family well-being and child functioning in the natural environment, a chasm was observed between the evidenced-based approaches to ASD treatment and the EI (Part C) model of family-centered service delivery. Through the review of the literature on ASDs, this chasm may be furthered explored through a review of ASD treatment and intervention approaches recognized within the literature.

ASD Treatment and Intervention

Since the identification of ASD within the literature, a long history of debate has surrounded the disorder (Asperger, 1944; Cooijmans, 2009; Kanner, 1943). Despite being an adversary in war, Nazi Germany still exacted a powerful influence on social attitudes in the U.S. at that time (Kennedy, 1942). During that time, medical debates of nature and nurture led to discussion surrounding the euthanasian of “nature’s mistakes”, or individuals living with significant disabilities in the United States (Kennedy, 1942, p. 14).

The morale of the time indicated a lack of hope for individuals living with ASDs. Yet, the late 1960s saw the emergence of pioneering work in the field of autism from Dr. Ole Ivar Lovaas. Lovaas valued the process of research and attempted to dispel the nature/nurture debate in order to gain a focus on treatment effectiveness. In the Proceedings of the Second Annual Meeting and Conference of the National Society for Autistic Children (Park, 1970), Lovaas stated:

> I have not asked questions about the etiology of autism, on why these children became the way they are, whether the cause is environmental or genetic. I think it is reasonable to conclude that it is organic, but we can't as yet point to any decisive experiment, neither can we conceive of a procedure which would clearly distinguish between organic and environmental contributions. (p. 39)

Lovaas incited a turn of events in the field of ASDs. In a sense, the mainstream shift from etiology to treatment had begun, which led the way for the research on treatment outcomes.

Lovaas’s focus became the “concrete, delimited and tangible aspects of the child's behavior” (Park, 1970, p. 40). The clinician provided the child with intervention that would encourage the learning of routine tasks, or skills of functioning, and adaptive behavior while being introduced to the elements of self-regulation (Lovaas, 1987). Often, disruptions in self-regulation manifested as extreme, self-injurious behaviors (Park, 1970). Lovaas captured the element of humanity, missing for years in autism study, with his quote:

> Here you see another child, spread-eagled on his bed, and restrained on hand and foot in order to prevent such behavior from occurring. Some of these children had been restrained for most of their lives. This would be a meaningful direction to human work, would it not, just to get this boy out of his restraints? (Park, 1970, p. 41)

For years, institutionalization and denial to the education system was a common practice for children and adults with disabilities (OSEP, Archived). As in Lovaas’s quote, above, restraint was often the only antidote (Park, 1970). The transition from institutionalization to applying techniques in order to provide the skills necessary for functioning in everyday life was at the time, a revolutionary crusade (Strain, Swartz, & Barton, 2011).

Lovaas’s behavioral methods of treatment were widely applied, generating excitement, and inspiring a sense of hope in a long-suffering autism community (Lovaas, 1987; Park, 1970; Strain et al., 2011). Groundbreaking in the results it produced, his treatment remains one of the most evidence-based forms for children with ASDs (Dawson, et al., 2010). Due to Dr. Lovaas’s intensive research and focus on providing skills that allow for daily functioning, he is considered the founding father of the behavioral movement for children with autism (Smith & Eikeseth, 2010).

Behavioral Models of Support for ASDs

Lovaas (1979) first utilized applied behavior analysis as an ASD intervention. His treatment found a basis in the principles and application of B. F. Skinner's work with behavioral modification (Axelrod et al., 2012). Skinner's work proved to be an available influence to Lovaas, as his behavioral theories of development served to dominate the view of child development from the 1920s-1960s (Behaviorism, 2015). Lovaas (Park, 1970) contended that the ability to shape desired behaviors, or "behavioral engineering" (p.37), was born of the ability to externally motivate the child to create the potential for internal motivation. Using behavioral techniques, such as applied behavior analysis and discrete trial training, he displayed that it was possible to teach children with autism desirable behaviors that would allow for functioning outside of institutions (Park, 1970; Lovaas, 1987).

Lending to a research focus, Lovaas's treatment utilized a standardized methodology and included intensive efforts, such as 40 hours a week of one-to-one direct clinician-led therapy for the child (Park, 1970; Lovaas, 1987). In therapy, Lovaas (1987) often used aversion and punishment to abolish negative behaviors. Alternatively, Lovaas (1987) used a stimulus, prompt stimulus and reinforcement model to obtain a desired behavior. For instance, the child was provided a stimulus such as "touch red" with a red card in front of him or her. If the child did not respond, the therapist would employ a prompt stimulus by placing the red card closer to the child so that the child would brush the card with a hand. Finally, a reinforcement was given, such as a food item. Lovaas contended that through receiving a reward, motivation was afforded to perform a desired task. He asserted "the emphasis of our treatment program is to make the child look as neat and appropriate as possible" (p. 43), effectively aligning the goals of his treatment with the accepted behavioral theories of development (Park, 1970).

Lovaas's (1987) best known, and perhaps, most groundbreaking study on behavioral intervention for young children with autism produced historic results. When presented with 40+ hours per week, 365 days a year of applied behavior analysis therapies, 47% of the experimental group had achieved normal levels of functioning, categorized as "normal intellectual" and "educational functioning" (Lovaas, 1987). The finding proved even more significant when considering that the control group, who received only 10 hours per week of behavioral intervention, saw only 2% falling into those same categories (Lovaas, 1987). At that time, hope was afforded to a population of individuals, where there was little before (Strain, Swartz, & Barton, 2011). Most notably, functionality for a child with autism was achievable with intervention.

Intensive behavioral interventions continue to persist in the current literature and with great empirical support (Axelrod, Kates, McElrath, & Wine, 2012). Recommendations for intervention hours typically range from 25-40 per week (National Research Council, 2001; Lovaas Institute, 2016), with families functioning as therapists to their children within the intervention programs (Granger et al., 2012). Criticisms of the applied behavior analysis approaches have emerged, offering concerns over the number of hours required for therapy and the generalizability of the treatment outcomes (Wallis, 2006). Such concerns have even led to an attack of the methodology of behavior analysis (Wallis, 2006). In a *Time Magazine* article, Wallis (2006) expressed concern towards the behavioral approach, stating that due to the overuse of drilling information versus developing the ability to think on one's feet, the treatment created robotic-like behaviors in patients.

Lovaas and Wright (2006) rebutted Wallis's article by standing by years of proven research and expressing the treatment's ability to utilize motivation as reinforcements:

> Rather than play on a parent's emotions or use pleasant terminology (such as "being intentional"), ABA holds itself to a higher standard -ongoing analysis and evaluation, normative tests and assessments, and long-term outcomes in peer-reviewed journals. This approach continues to be the best hope for the majority of children with autism. (p. 234)

The authors further acknowledged movement within the provision of behavioral supports, which indicated that changes to the clinically based delivery model had occurred (Lovaas & Wright, 2006). For instance, Lovaas and Wright (2006) indicated that treatment had shifted to include natural, fun, opportunities for child motivation to occur in contrast to earlier contrived situations. The Lovaas and Wright (2006) response elicited a major theme in science, challenge, movement, and varying perspectives.

Alternative Treatment Approaches for ASDs

Although applied behavior analysis remains the most evidenced-based approach to the treatment of ASD in the research sector, other methods, including various forms of relational treatment strategies, have emerged. The alternatives to the behavior-based models appear to build upon the previously-identified criticisms of clinical measurement of outcomes, such as progress determination through intelligence measures, lack of generalization from clinical settings, and child reliance on prompts (Pajareya & Nopmaneejumruslers, 2011; Wallis, 2006). Alternative approaches appear to capitalize on social-communication deficits and elements of flexibility, which target the core diagnostic categories of ASD, as defined in the ASD section of this review (Gutstein, Burgess, & Montfort; 2007). Most notably the alternative therapies discussed in this section indicate a treatment that shows increased outcomes in the area of social competence (Pajareya & Nopmaneejumruslers, 2011).

Social competence. Gutstein and Whitney (2002) identified social competence as a core deficit negatively affecting the lives of individuals with ASD. Studies have shown low ratings in quality of life measures for individuals on the autism spectrum (Da-wei, Yan, Xin-ning, & Shu-juan, 2015; Ikeda, Hinckson, & Krägeloh, 2014; van Heijst, & Geurts, 2015). For instance, Bernard et al. (2001), through The National Autistic Society, conducted a large study consisting of 450 adults with ASD. They found that of the participants surveyed: (a) 3% were living fully independently, (b) 49% were living at home, (c) 10% were able to manage the routine tasks of life without assistance, (d) 12% of participants in the high-functioning category (high intelligence quotient and language abilities) had full-time paying jobs, and (e) 31% of the individuals with ASD surveyed had no social interaction outside of family (Bernard et al., 2001).

Gutstein and Whitney (2002) asserted that, in order to improve the quality of life of individuals with ASD, intervention required significant attention toward developing an ability to navigate social relationships through targeted interventions of social competence. The authors defined social competence as an ability to possess: (a) secure attachments with others, (b) social learning that is instrumental in nature, or an ability to indicate needs and wants to others, and (c) the desire and ability to share a social experience with another (Gutstein & Whitney, 2002; Prizant & Schuler, 1987). Gutstein and Whitney (2002) indicated that many individuals on the autism spectrum display an ability to acquire secure attachments and instrumental social learning; however, the development of experience-sharing relationships oftentimes take an atypical path, leading to problems with navigating the social world.

Developmental Social Pragmatic (DSP) Interventions

Earlier research of the core deficits of ASDs has produced programs that work directly with the social-emotional deficits linked with ASDs (Gilkerson & Kopel, 2005; Mahoney &

Perales, 2003). Additionally, the accepted measures of success, such as increased intelligence quotients, have spurred the discussion of defining appropriate measures of success for individuals with ASDs (Burgess & Gutstein, 2007; Pajareya & Nopmaneejumruslers, 2011). DSPs are recognized as unique in their approach to ASDs, straying from strict behavior models to that of a developmentally-based, socially-pragmatic, and parent-led consideration (Casenheiser, Shanker, & Stieben, 2011). Casenheiser et al. (2011) indicated that developmental considerations included in DSP models are the typical, developmental trajectory of skills and knowledge, recognizing the need for foundational skills. The intention of DSPs asserted that a purposeful progression of social and pragmatic communication development is essential in creating fluid social interaction rather than teaching behavior, independently, as discrete skills (Casenheiser et al., 2011; Gutstein, 2009a, b; Pajareya & Nopmaneejumruslers, 2011). Eye contact, for example, in a behavioral approach is treated as an independent skill that uses operant conditioning to shape behavior. DSP interventions allow for a step-by-step developmental breakdown of the child's interactions, which provides a foundation in order to achieve readiness (Casenheiser et al., 2011; Gutstein, 2009a, 2009b; Pajareya & Nopmaneejumruslers, 2011).

In the five studies reviewed on this particular approach, ranging from the years of 2007-2014, positive benefits were observed which included the improvement of social interactions and the improvement of diagnostic classification ratings specific to ASDs. Studies selected indicated peer-reviewed research available in the two identified DSP models: DIR Floortime™ (ICDL, 2016b) and RDI (2016). Table 4 indicates the research methods utilized in the studies, participant ages and numbers, and significant results gained from the studies.

It appears as though the DSP model is effective in promoting the reduction of the core deficit areas of ASD while promoting the functional and social-emotional behaviors, or the social competence, of individuals with ASD (Casenheiser et al. 2011; Pajareya & Nopmaneejumruslers, 2011; Solomon, Necheles, Ferch, & Bruckman, 2007). Considering the core deficits of the disorder, the treatment showed peer-reviewed evidence to the development of the behaviors associated with social interaction versus the behavior as a skill, as indicated through decreased ratings of ASD severity (Gutstein, Burgess, & Montfort, 2007; Pajareya & Nopmaneejumruslers, 2011; Solomon, Necheles, Ferch, & Bruckman, 2007). Overall, the studies reviewed indicated significant progress in the social abilities of children who had received the DSP intervention.

Table 4

Findings of DSP Studies

Research Method	Participants	Results
Pre-Post Controlled Randomized Comparison (Casenheiser, Shanker, & Stieben, 2011)	51 children, ages 2 years to 4 years 11 months	Significant differences between experimental and control groups in quality of social interaction; involvement; attention to activity; initiation of joint attention; enjoyment in interaction. Children in the experimental group (DIR) performed significantly better following treatment. *No significant differences indicated in subset of compliance
Pre-Post Test Measure of Intervention Effectiveness (Gutstein, Burgess, & Montfort, 2007)	16 children, ages 21 months, to 7 years 10 months	Significant improvements in the areas of diagnostic classification, flexibility, and school placement
Pre-test post-test Control Group Experimental Design (Lal & Chhabria, 2013)	26 children, ages 3 to 6 years	Significant differences in the mean scores of all measures of pretest and posttest scores for the DIR-Floortime™ group including measures of turn-taking, two-way communication, cause and effect understanding, and emotional thinking.

		Significant group (experimental-control group) differences in overall social interaction post scores measures in favor of DIR-Floortime™ intervention.
Stratified Random Assignment Baseline and Posttest intervention measurement (Pajareya & Nopmaneejumruslers, 2011)	32 participants, ages 2 years to 6 years.	Statistically significant differences in posttest measurement in the areas of functional emotional development and autism rating scales. Children in the experimental (DIR-Floortime™) group lowered their symptoms of autism severity and increased their functional emotional development at a significantly higher rate than the control group.
Pre-Post Controlled Randomized comparison Solomon, Van Egeren, Mahoney, Quon, Huber, Zimmerman, (2014)	128 children, Ages 2 years 8 months, to 5 years 11 months	At post-treatment, parents in the experimental group were significantly less depressed when compared to parents in the control group. Significant differences in interaction and diagnostic classification at posttest. Children in the experimental group had significantly lower scores in diagnostic classification ratings and significantly higher ratings of interaction and social development

Summary of Alternative Treatment Approaches

Research studies conducted on DSP models, though limited, display promising results in the areas of social interaction, educational placement, and lessened severity of ASD classification (Gutstein, Burgess, & Montfort; 2007; Hobson, Tarver, Beurkens, & Hobson, 2015). The emergence of randomized, controlled studies using DSP models indicates significant improvements in parent-child social interaction to those of behaviorally-based approaches (Casenheiser et al., 2011; Solomon, Necheles, Ferch, Bruckman, 2007; Pajareya & Nopmaneejumruslers, 2011; Solomon, Van Egeren, Mahoney, Quon Huber, & Zimmerman

2014). However, the depth of behavioral intervention research appears to present a challenge to DSP models. Additionally, although the alignment of theory between the DSP based models appears to correlate more closely with the EI (Part C) approach to service delivery, more research into the effectiveness of the models will potentially provide empirical support for the use of DSP interventions.

ASD Intervention and EI (Part C) Compatibility

Literature specific to EI practices for I/Ts with ASDs remains quite sparse (Boyd et al., 2010; Schertz et al., 2011; Siller et al., 2013). Rogers (2009) indicated that when literature on young children with ASDs is located, elements of family and their cultural perspectives are nearly vacant in the material. Additionally, Schertz, Reichow, Tan, Vaiouli, and Yildirim (2012) conducted a comprehensive review of intervention studies for I/Ts with ASDs. Their review found 20 available articles, with only one article focusing on parent and family well-being.

Schertz et al. (2011) reviewed literature regarding EI (Part C) regulations (IDEA, 2011), the DEC's (DEC, 2014), and NAEYC's (NAEYC, 2009) recommended practices. The authors found considerable overlap in the recommended practices of: (a) family-centered practice, (b) natural environment, (c) active learning, and (d) functional and systematic practices that consider developmental readiness and unique variations in learning. Noting the significance of such overlaps, the authors labeled these multiple source-supported guidelines as, "critical principles for toddler intervention" (p.5).

EI (Part C) of IDEA's (2011) recommended practices included support for its providers' intervention methods utilizing natural environments and everyday family routines (DEC, 2014). Behavioral interventions have been consistently evidence-supported and the accepted as the traditional approach to ASDs (Dawson, et al., 2010; Lovaas Institute, 2016; Reed & Osborne, 2012). In contrast with the practices of the EI (Part C) family-centered model, the behavioral model often situates the provider as direct therapist to the child, leaving the parent in a more managerial position (Granger et al., 2012; DEC, 2014). In fact, Granger et al. (2012) identified that parents utilizing behavioral supports in early childhood often take on a dual role as parent-therapist. The dual-roles created a stress for the parents as they described feeling more like therapist-educators rather than parents (Granger et al., 2012).

Boyd and colleagues (2010) studied a particular group of intensive behavioral models known as Comprehensive Treatment Models (CTM). They identified CTMs as being organized around a structured framework and implemented over a period of time. Further, it was noted that like many contemporary treatments, CTMs are focused on addressing the specific developmental and core behavioral deficits of ASDs. Following a comprehensive review of CTM research, the authors acknowledged that the application of the model to an I/T population produced little efficacy (Boyd et al., 2010). The authors' finding identified discrepancy in treatment effectiveness in young populations between behavioral approaches and the family-centered model of EI (Part C) (DEC, 2014; IDEA, 2011).

The goal of determining and practicing the most effective evidence-based and population-appropriate treatment for I/Ts with ASDs is not without further challenge. Due to the intensity of hours prescribed by the recommended clinically-based, behavioral intervention model, Schwartz and Sandall (2010) expressed that autism could financially "break the EI (Part C) system" (p. 105). As a possible solution, the authors advocated for the use of intensive behavioral therapies as an initial means to target the behaviors of I/Ts with ASDs (Schwartz & Sandall, 2010). Advancing the discussion of potentially deviating from currently recommended treatments to conserve time and dollars, Rollins, Campbell, Hoffman, and Self (2015) studied an alternative approach. Using search criteria previously defined by Schertz et al. (2012), a curricular-based model of Early Intensive Behavioral Intervention, that also employed principles of EI (Part C) was developed and applied (Rollins et al., 2015). In the authors' study, providers employed a cost-effective (1.5 hours per week) training model to increase family capacity to meet the identified developmental areas of need for ASDs. The I/Ts indicated positive results with reports of increased eye contact, social engagement, and reciprocity (Rollins et al., 2015).

Distinctions made between that of "evidence-based" behavioral interventions versus the developmental models of EI (Part C) in the treatment of ASD in I/Ts remains a topic of discussion. While numerous differences between the methods have been identified, most can be understood as one of three variables: (a) duration of therapy, (b) frequency of treatment, and (c) a child-centered versus family-centered model. While the challenge to marry the goals of clinical-effectiveness and cost-effectiveness remains great, research such as the study conducted by Rollins et al. (2015) offers a promising, possible solution through a compromise between treatment methods.

Summary of the Chapter

This review utilized three major sections from which to understand EI (Part C) services for I/Ts with ASDs. The sections included the framework for understanding the study, the EI (Part C) Program, and ASDs. Each section contained relevant concepts to understanding the study as a whole. This summary provided the link to the sections contained within the review, which provided a sturdy basis from which to conduct this research. The purpose of this present study is to explore the influences and use of routines within EI (Part C) home visit sessions for I/Ts with ASDs.

The theoretical lens from which this literature review was conducted included a blended model of Ecological Systems Theory (Bronfenbrenner, 1979, 1986, 1993) and Transition Theory (Anderson, Goodman, Schlossberg, 2012; Schlossberg 1981, 1984). Ecological Systems Theory reviewed research that utilized an already existent theoretical basis in EI (Part C) (Barnett, Lentz, Bauer, & Macmann, 1997; Fleming, Sawyer, & Campbell, 2011). Additionally, the EI (Part C) model encouraged the provision of services from an ecological standpoint, which built upon the use of this particular theory (DEC, 2014; DE, 2011). Further, Ecological Systems Theory was used in a way that did not appear to be present in EI (Part C) research literature to date. The chronosystem was a later addition to the model encouraging the consideration of the passage of time in societal context (Arnold, Lu, & Armstrong, 2012; Bronfenbrenner, 1986). Therefore, historical and societal accounts within the transitions experienced in EI (Part C) and ASD were included to highlight this change over time, allowing the research conducted to create meaning surrounding the potential influences in the providers' use of the strategy of routines in home visit sessions for I/Ts with ASDs. Transition Theory further served to support the understanding of the parts within the system, namely the EI (Part C) providers and families of I/Ts with ASDs. Therefore, this review considered the identified transition of the EI (Part C) system as a whole, in addition to the transition experienced by the EI providers and families of children with ASD (Sawyer & Campbell, 2012; Snyder, Hemmeter, & McLaughlin, 2011; Strain, Swartz, & Barton; 2011).

Research reviewed considered the transitional positioning of the EI (Part C) Program as a whole, indicating that the system has not yet fully embraced a family-centered model (Dunst, Bruder, & Espe-Sherwindt, 2014). While a great deal of earlier literature focused upon the study of provider practices, research has moved to show that through coaching models practices of providers may shift to a more family-centered nature (Foster, Dunn, & Lawson, 2013). However, wide access to coaching models for the EI providers is not apparent in the literature (Salisbury, Cambray-Engstrom, & Woods, 2012).

Studies revealed that provider practices were evaluated in a general context from the standpoint of family-participation, teaching strategies, and family-capacity building. In the review, research indicated that EI provider preparation afforded little to no understanding of the family-centered system (Francois, Coufal, & Subramanian, 2015). EI (Part C) providers often expressed feeling stressed due to their lack of training, which often affected their confidence and competence in the position (Bruder, Dunst, & Mogro-Wilson, 2011; Dunst & Bruder, 2014). Emotional needs of families, coupled with lack of training, were reported to create burnout or situations in which providers often created their own judgements of families' willingness to participate in services (Brotherson et al., 2010). Often providers were reported to resort to a clinical, more child-directed model in these situations (Sawyer & Campbell, 2012). It was indicated that providers cognitively held the ideal practices; however, the implementation of those practices were in contrast (Fleming, Sawyer, & Campbell, 2011). The researcher was unable to locate any specific studies on the providers' direct influences and use of the strategy in utilizing family routines in EI (Part C) home visit sessions for I/Ts with ASDs. This strategy is valuable to the EI (Part C) system as a whole and recommended as a developmentally appropriate practice by the DEC (2014). Additionally, the use of family routines holds a distinctive position in the well-being of families of children diagnosed with an ASD (Ausderau & Juarez, 2013).

Evaluating the experiences of families raising a child with an ASD requires careful consideration for the diagnostic criteria (APA, 2013; Ashburner et al., 2014). Therefore, the

ASD section engaged the literature from a diagnostic standpoint. The diagnostic review allowed for an understanding of the symptomology associated with ASDs. Additionally, because ASD is a neurodevelopmental disorder, characterization requires significant knowledge into how the disorder presents in the I/T population (Feldman et al., 2012). Unlike a physical or genetic disorder, tests that confirm diagnosis remain behavior and symptomology-based (Lord et al., 2012). Although there is considerable overlap in diagnostic characteristics and presentation in I/T populations, these overlaps are not always clear in the developmental progression for professionals and parents (CDC, 2016a). Diagnostic criteria and the presentation of ASD in I/Ts was relevant to this discussion in order to identify the variables that surround and potentially influence the supports of providers to families in EI (Part C).

Upon review of the diagnostic features of ASDs, an abundance of research presented the challenges that families endure while supporting and parenting their child with an ASD (Bagatell, 2015). Variables related to the core deficits of ASD (social interaction, social communication, and stereotypic and repetitive behaviors) appeared to influence the family well-being (Little et al., 2015). Families found to possess a level of “hardiness” were associated with personal characteristics, such as a general sense of optimism; yet, an abundance of literature presented indicated that families undergo a very stressful process in parenting their children with ASDs, which may ultimately affect their quality of life (Pozo, Sarriá, & Brioso, 2014). The stress experienced by parents of I/Ts with ASDs appeared to be heavily reflected in the research surrounding carrying out daily activities through family routines (Bagatell et al., 2014).

Families reported partaking in extensive accommodations to include their child with ASD within the family routines, exclude their child from the routines, or altogether avoiding the routines (Bagatell et al., 2014; DeGrace, 2004; Wolin & Bennett, 1984). The conclusions indicated the need of support for families in providing the accommodations necessary to include their child with an ASD into daily family routines (Bagatell, 2015; Campbell & Coletti, 2013; Crespo et al., 2013). These conclusions supported the efforts of those who serve families with ASD to increase the opportunities for natural developmental learning in addition to supporting the family well-being (Boavida, Aguiar, & McWilliam, 2014).

Relevant to the present study, research indicated that coursework offered at the level of higher education provided a clinically-based preservice training model for providers (Francois, Coufal, & Subramanian, 2015; Campbell & Sawyer, 2009). ASD currently recognizes behavioral therapies as the gold standard treatment, based upon a historical wealth of peer-reviewed literature supporting positive gains for children with ASD (Da-wei et al., 2015; Dawson et al., 2010; Lovaas, 1987). However, alternative or DSP therapies have emerged in light of further understanding of the core deficits of ASD, which appear to more closely reflect the EI (Part C) family-centered model. Behavioral therapies use a clinical model of intervention, which typically show contrast to the family-centered models (Lovaas, 1987; Schertz et al., 2011). Although a study was located indicating a blend of behavioral and coaching model, the wealth of studies indicates high frequency, child-directed therapy in behavioral practices (Rollins, 2015). The observance of a clinical model is relevant to the current discussion as higher education institutions offer degree programs that are based in specific behavioral therapies (Association for Behavior Analysis International, 2016). However, while DSP or alternative therapies may align more closely with the EI (Part C) model and offer promising peer-reviewed research, two reviewed DSP programs appeared to be independent certification programs not yet offered at the level of higher education (ICDL, 2016b; RDI, 2016).

Each of the sections in this review offered peer-reviewed insight into the current situation under study. Chapter 3 will discuss the methodology used for this study. The purpose of this present study was to explore providers' influence and use of family routines within the context of EI (Part C). Therefore, methodology was selected on the premise of gaining an in-depth, naturally occurring viewpoint from which to describe the influence and use of family routines in EI (Part C) home visit sessions.

CHAPTER 3

METHODOLOGY

The purpose of this qualitative case study was to describe the EI (Part C) supports afforded to families of I/Ts with ASDs. Namely, providers' influences and use of family routines in the context of EI (Part C) home visit sessions for I/Ts with ASDs was the focus of the study. A blended, theoretical approach was used to guide the study. Ecological Systems Theory asserted that child development is influenced by forces that are both, seen and unseen (Bronfenbrenner, 1979, 1986, 1993). Transition Theory showed relevance within this study as a blended theoretical focus, due in part to the observed transition occurring within the EI (Part C) service provision (Anderson, et al., 2012; Bruder et al., 2013; Campbell et al., 2009). A review of the literature produced, overall, an observed research-to-practice mismatch (Fleming et al., 2011; Salisbury et al., 2010).

Recommended practices in EI (Part C) asserted a family-centered service delivery model (DEC, 2014). Through a review of the literature, it appeared as though the providers in the EI (Part C) system are experiencing a transition in their use of child-centered or clinical models of service delivery to that of a firm, family-centered model (Colyvas et al., 2010). Therefore, Transition Theory was used to uncover the experience of transition from the EI (Part C) system, as a whole, along with the individuals involved in the transition, such as providers and families of I/Ts with ASDs. A visual depiction of the blended theoretical framework is located in Appendix A.

The seen elements indicated through Ecological Systems Theory have been described as the microsystem and mesosystem (Bronfenbrenner, 1979, 1986, 1993). The microsystem considered the child's direct interactions with familiar adults. In this study, the microsystem reviewed literature surrounding the families and providers of EI (Part C) services for I/Ts with an ASD. The mesosystem described the interactional quality of the child's microsystem, namely, how the members of the child's microsystem interact with one another serve to promote or inhibit child development. Ecological Systems Theory asserted that the most relevant aspects within the discussion become apparent through a scan of the ecology (Morse, 1987). Therefore, through the review of the literature, elements of researched, provider practices and family experiences added to the current understanding of the situation under study. Further, Transition Theory highlighted the "The 4 S System" which included the situational elements of the situation, self, supports, and strategies that allow for successful transitions (Anderson et al., 2012, p. 33). The microsystemic discussion related to the elements of the provider and family selves, further enhanced the discussion of the transition to a firm family-centered system of EI (Part C). Mesosystemic elements of the coaching relationship indicated the not yet fully inclusive, family-centered practices of providers (Sawyer & Campbell, 2012); however, studies utilizing coaching models showed an ability to promote positive interactions between providers and families (Woods et al., 2011; Marturana & Woods, 2011).

Unseen influences, described by Ecological Systems Theory, included the exosystem, macrosystem, and chronosystem (Bronfenbrenner, 1979, 1986, 1993). The exosystem influences were described as the social systems that the child does not directly interact with, such as the EI (Part C) system as a whole. The macrosystem rendered consideration for the cultural dispositions of the family and society at large. Therefore, the developmentally appropriate practices and program goals were reviewed for consideration in the exosystem and macrosystemic influences. The chronosystem considered the historical context and passage of time apparent in the child's life within society. Therefore, a historical review of ASDs and the treatment, along with the EI (Part C) system, provided a chronological viewpoint which further indicated the current lack of consensus in the evidence-based treatment for I/Ts with ASDs (Schertz et al., 2011).

Under the framework of Ecological Systems and Transition Theories, this study attempted to gauge the providers' supports for a family of I/T with ASD in the context of EI (Part C) home visit sessions. More specifically, the use of family routines within the context of EI (Part C) home visits for the I/T with ASD was of particular interest to this study. The focus on routines was based upon the reviewed literature of the difficulties families of children with ASD face in engaging in everyday routines (Ausderau & Juarez, 2013). Identification of the potential seen and unseen elements that may influence the providers' use, or non-use, of a family-centered approach that would utilize family routines was uncovered through the review of the literature. The observed lack of preparation for EI (Part C) providers, in addition to the providers' judgements of families, appeared to influence both confidence and competence in service delivery (Bruder & Dunst, 2015; Fleming et al., 2011).

This study served to describe the interrelatedness of variables of the situation, self, supports, and strategies of the members involved in the team highlighting the use or non-use of family routines as the context of EI (Part C) home visit sessions for I/Ts with ASDs. The study aimed to uncover the influences and use of family routines as the context of EI (Part C) home visit sessions through studying the current functioning and perceptions of a contemporary EI (Part C) team supporting an I/T with ASD.

Case study methodology was used to examine the elements that influence the use of family routines in the context of EI (Part C) home visit session for an I/T with an ASD. Observations, document analysis, and semi-structured interviews were conducted with a contemporary team of individuals serving a toddler diagnosed with an ASD in EI (Part C). The team approach allowed for multiple perspectives to be considered within the situation (Yin, 2014). Each individual unit, or case, served to engage the data through a case-within-a-case approach (Gondo, Amis, & Vardaman, 2010).

An inductive approach to the thematic analysis allowed for the identification of themes to emerge through the data collection process (Gondo, Amis, & Vardaman, 2010; Hatch, 2002; Lapadat, 2010). An inductive approach was used to allow for an open approach to the analysis of individual cases (Hatch, 2002). Following individual case analysis, a cross-case thematic analysis was utilized in order to answer the research questions defined in this study. Data collected served to answer the following questions:

1. In what ways are providers supporting families of I/Ts with ASDs in EI (Part C)?
2. How are families of I/Ts with ASDs supported in their daily routines through EI (Part C) home visit sessions?
3. How are EI (Part C) providers and families supported and influenced in their implementation of family-centered use of routines for I/Ts with ASDs?

The purpose of this chapter was to describe the qualitative approach to research in addition to rationale for the selected methodology. Additionally, a description of the participants, procedures, theoretical propositions, and methods used for data analysis were described. Chapter 4 will describe the results of the inductive approach to thematic analysis in the context of the identified research questions.

Qualitative Research Methods

This research study utilized a qualitative approach. Qualitative research is an empirical, comprehensive investigation of a contemporary issue utilizing natural contexts and multiple sources of evidence (Creswell, 2011; Hancock & Algozzine, 2011; Merriam, 1998; Yin, 2014). Stake (1995) identified that, through a “thick description” (p. 39) of data collected, research participant viewpoints allow for understanding without “expectation of causal explanation” (p. 38). Further, Hancock and Algozzine (2011) articulated that qualitative researchers elicit this understanding through an “emic” (Hancock & Algozzine, 2011, p. 9), or insider perspective, which is then analyzed by the researcher (Creswell, 2011).

Qualitative research emphasizes the capacity to delve into the “how” and “what” of a given situation lending to the methodology’s heavy utilization in the educational, psychological, and sociological fields (Yin, 2014, p. 2). With an emphasis in understanding a phenomenon, qualitative research serves an exploratory function in research, allowing for emphasis on questions, rather than the hypothesis (Creswell, 2011). The exploratory function of this approach to research utilizes exploration as a means to conceptualize and describe “a host of factors that may be influencing a situation” (Hancock & Algozzine, 2011, p. 9). Therefore, qualitative research has been found to be particularly useful when there is a limited amount of information on a given phenomenon to be studied (Hancock & Algozzine, 2011; Yin, 2014).

Case Study Methodology

Case study methodology is an accepted approach to qualitative research (Creswell, 2011). Case study methodology provides a comprehensive approach to studying an identified case or unit of analysis within the identified context or setting (Merriam, 2001; Yin 2014; Hancock & Algozzine, 2011). Case-study methodology is a method of qualitative research in which the researchers aim to describe, document, or discover characteristics of a group of individuals (Hancock & Algozzine, 2011). Creswell (2011) described that case-study research was utilized in the social sciences dating back to the 1920s. Due to the interdisciplinary backgrounds drawing from law, psychology, political science, and medicine, case study research has a strong and grounded history across multiple disciplines (Creswell, 2011). Qualitative case study research focuses on the individual representation of a group and "attempts to explore a host of factors that may be influencing a situation" (Hancock & Algozzine, 2011, p. 9). Baxter and Jack (2008) described this process as the researcher's exploration of data related to the subjective perceptions of the participants, which required objectivity in creating meaning from their experiences.

Qualitative case study research represents a constructivist paradigm of social life (Stake, 1995; Yin, 2003). Creswell (2014) described the social constructivist approach as one that appreciates the individual's understanding as created through social experiences. This social perspective includes the recognition of, both, the subjective experience of the participants and the objectivity of the researcher to identify the complexity of the participant views (Baxter & Jack, 2008). Historical and social perspectives were identified as an influence in the process of meaning-making for the individual. Therefore, as the participants interpret their meaning through the engagement with the social and historical world, researchers use an inductive approach to interpreting the meaning of the gathered data (Hatch, 2002).

In addition, case study research allows for flexibility in the data collection and analysis. In the field of education, Merriam (2001) advocated a general approach to case study research. Further, Creswell (2011) indicated the ability of case study research to "…be a design… that may be an object in study, as well as product of inquiry" (p. 97). "Hence, information is explored and mined in the case study environment for a more thorough examination of a given phenomenon" (Hancock & Algozzine, 2011, p. 16). This examination was further supported by a descriptive approach to the research, which aims to describe the situation under study

(Creswell, 2014). The findings from case study analysis allows for the expansion of theories and the potential for improvement in practice (Hancock & Algozzine, 2011; Merriam, 2001).

Creswell (2011) outlined a method for conducting case-study research, which included a model of organized research selection. Creswell (2011) identified aspects of conducting case-study research, which require attention, including (a) appropriateness of case-study research, (b) identification of the cases, (c) data collection, (d) data analysis, and (e) data interpretation. Defining the appropriateness, when selecting case-study research, involves careful consideration and planning of the implementation of the study by the researcher (Hancock & Algozzine, 2011). Clearly identified cases selected provide an "in-depth understanding of the comparison of several cases" (Creswell, 2011, p. 100). The case is selected to identify an issue, as the researcher gains the perspectives of the cases and analyzes the information to create understanding around an identified conceptual framework (Hancock & Algozzine, 2011). This particular study engaged an approach to case study research that identified in-depth, multiple perspectives of the participants from within the case.

Case-within-a-case approach. Gondo, Amis, and Vardaman (2010) described a case-within-a-case approach as, "a specific research strategy that can be used when employing the case study methodology" (p. 135). A case-within-a-case approach utilizes the overall case under study, but also recognizes the importance of the multiple perspectives of the individual units, or cases, within the overall identified case (Gondo, Amis, & Vardaman, 2010; Hancock & Algozzine, 2011). Therefore, multiple perspectives of the identified issue under study provide meaningful opportunities to view the overall case as a subject of study, while representing the individual subcases as units within the case (Yin, 2014). It is recommended that an overall case consists of four to ten subcases in order to provide an in-depth understanding, yet, allow for manageable data (Gondo, Amis, & Vardaman, 2010).

Identification of a bounded system, which enhances the data collected within case, must be purposeful (Gondo, Amis, & Vardaman, 2010; Yin, 2014). While single case studies are cautioned for generalization, utilizing the case-within-a-case strategy conceptualizes the case as individual subcases allows for the expansion and generalization to theory (Creswell, 2011; Gondo Amis, & Vardaman, 2010; Yin, 2014). A case-within-a-case approach allows for theoretical generalizations to be made from the identified observations from the larger case under study (Gondo Amis, & Vardaman, 2010). Yin (2014) advocated that researchers identify theoretical propositions garnered from the literature base from which to conduct research and analyze data for the case under study. Therefore, in this particular case, theoretical propositions were uncovered from a detailed review of the literature.

Theoretical propositions. A detailed review of the literature uncovered theoretical generalizations from which theoretical propositions were constructed. Theoretical propositions were garnered from the literature base and allowed for an understanding into the situation under study. Therefore, elements of Anderson et al.’s (2012) 4 S System were recognized as contributing to the influences and interrelatedness of variables of providers’ use of routines in the context of home visit sessions. For example, provider pre-service preparation and personal judgments were theoretically viewed as influences in their use of family routines in EI (Part C) home visit sessions (Bruder et al., 2013; Dunst et al., 2014; Francois et al., 2015). Additionally, family attributes were indicated to serve to enhance or detract from providers’ use of family-centered supports in EI (Part C) home visit sessions (Fleming et al., 2011). The observed literature base appears to have indicated the microsystemic and macrosystemic influences apparent within EI (Part C).

Bronfenbrenner's (1979, 1986, 1993) exosystemic, mesosystemic, and chronosystemic influences were observed within the literature related to the providers' use of family-centered supports and strategies in EI (Part C) home visiting. Therefore, the exosystemic influences of the EI (Part C) system's developmentally appropriate and recommended practices were considered (DEC, 2014). The viewpoint of treatment appropriateness, in ASD, conceptualized a chasm between EI (Part C) developmentally appropriate practices and evidenced-based treatment specific to ASD (Boyd et al., 2010; Granger et al., 2012; Noyes-Grosser et al., 2013). The evidence-based practices related to ASD further encapsulated a historical perspective to treatment within the situation specific to ASD in EI (Part C) (Strain, Swartz, & Barton, 2011). This historical perspective provided insight to the current practices of providers, indicated as more clinical versus family-centered in their approaches to EI (Part C). Therefore, based upon the review of the literature, the following theoretical propositions were used from which to analytically generalize the findings from the study (Yin, 2014).

1. The provider (self) along with their educational preparation and training (supports) will reflect their home visitation style and use of family routines (strategies) in EI (Part C) sessions with families of infants and toddlers with ASDs (situations).
2. Social, cultural, and historical influences are present in the implementation of EI (Part C) home visitation lending to the use or non-use of family routines.
3. As a whole, in the EI (Part C) (Part C) Program, family-centered practices are in transition, indicating that child-centered models may be over utilized.

Ultimately, through the review of the literature, it appeared that the direct, naturalistic study of providers' support for families of I/Ts with ASDs produced a gap in the literature. More specifically, while a vast amount of studies recommended the direct support of providers in the family routines, it appeared that no study had directly studied the providers' influences and use of family routines specific to I/Ts with ASDs in EI (Part C). Therefore, participants were purposefully selected as a contemporary EI (Part C) team supporting an I/T with an ASD.

Participants

The identification of cases, within the case study research, involved the specific focus of a contemporary team in EI (Part C) serving an I/T with an ASD, stemming from purposeful sampling. The purposeful sampling offered differing perspectives within the same identified issue creating depth within the study (Creswell, 2011; Hancock & Algozzine, 2011; Stake, 1995). A challenge in case-study research is identifying the cases to study and how in-depth the research proceeds (Yin, 2014). One consideration of case-study research considers that the more cases that are selected, the less depth that the research will cover (Creswell, 2011; Hancock & Algozzine, 2011). While there is an assumption that more cases will lead to generalizability, Glesne and Peshkin (1992) expressed that this assumption should hold little meaning to qualitative researchers. Cases must be accessible to the researcher and provide enough information in order to create a comprehensive picture of the issue (Creswell, 2011; Hancock & Algozzine, 2011). A suggestion from Creswell (2011) was that four to five cases is considered a recommended maximum for case study research; however, Creswell (2011) indicated that this choice is solely the decision of the researcher for the purposes of the study.

Stake (1995) expressed that boundaries must be placed on a case in order to assure that the case is bound and resists becoming too broad. Gondo et al. (2010) recommended that a case-within-a-case be selected strategically in order to present an overall case connected by a unifying situation. Therefore, the purposeful sampling method that was used for this study identified "different perspectives on the problem" (Creswell, 2011, p. 100). The purposefully sampled case in this study was defined as a contemporary, bound team of providers working with a family of an I/T with an ASD in EI (Part C).

The researcher contacted a large EI (Part C) agency serving three counties in Pennsylvania in order to gauge interest for participation in the research study. The agency's Executive Director provided the researcher with a site approval letter on the agency's letterhead. The researcher provided the agency with formal consent letters which the agency delivered to the qualifying families in self-addressed stamped envelopes (Appendix B). Qualifying families included a family of an I/T diagnosed with an ASD in EI (Part C). One qualifying family agreed to participate in the research study. Additionally, the agency provided the family's providers and service coordinator with the signed consent forms in order to gauge their interest in participation (Appendix C; Appendix D). Upon the researcher's receipt of the signed consent form for each of the participants involved in the case, the family was contacted to clarify any questions. Additionally, the providers and SC of the identified teams were contacted to address any questions or concerns that they had.

The team selected for participation included all providers serving on the team consisting of the (a) SC, (b) SLP, (c) SI, (d) OT, and (e) three family members. In total, four EI (Part C) professionals and three family members participated in the study. Three of four of the most widely utilized disciplines in EI (Part C) were represented within the study which created an in-depth analysis of multiple perspectives within the situation under study (Hebbeler et al. 2011; Raspa et al., 2010). The family participants included a mother, father, and a paternal grandmother, whom the family was living with and who cared for the child during the day when the parents worked outside of the home. Of the professionals represented by the EI (Part C) team, one participant was male (SC) and three (SI, SLP, and OT) were female. All research participants were 18 years of age and voluntarily consented to the study as indicated through the consent letters (Appendices B, C, and D). The Institutional Review Board for the Protection of Human Subjects (IRB) of Indiana University of Pennsylvania approved this study.

Data Collection Tools

This research study examined the situation under study using three data collection tools: (a) observations, (b) document analysis, and (c) semi-structured interviewing (Hancock & Algozzine, 2011; Merriam, 2001; Yin, 2014). This triangulated method of data collection offered multiple views from which to discover in-depth information and build trustworthiness into the study (Creswell, 2011; Edmonson & Irby, 2008). Kreftings (1991) identified that data triangulation provides the researcher an ability to crosscheck data, sources, and interpretation. Each of the data collection tools and procedures was reviewed, in detail, in the next sections, in order to provide a thorough understanding of the relevance to the current study.

Observations

Observations, in the context of case study research, provide an objective perspective of the research topic (Hancock & Algozzine, 2011). Hatch (2002) identified that researchers must identify what will be attended to within the observation in order to remain focused to answer the research questions. Through conducting the structured, non-participant observations between providers and families, the researcher was able to gauge the supports offered to families during EI (Part C) home visit sessions. The identification of direct support during the observations provided the researcher with the ability to structure the observations to be specific to the contexts for intervention, namely the family routines utilized during the home visit sessions. This element of structure provided an opportunity for the data collection, through observation, to focus on the identified issue (Hancock & Algozzine, 2011; Hatch, 2002). Measures of trustworthiness were incorporated within the observation data collection, including the observation protocol, field notes, and video documentation of the data collected (Creswell, 2014; Edmonson & Irby, 2008; Yin, 2014).

For this research study, structured, non-participant observations included the researcher's observation of participants in each provider-family dyad during a typical home visit session. There were three observations altogether, including (a) SI-family, (b) OT-family, and (c) SLP-family. The observations occurred during the regularly scheduled home visit sessions between the providers and family at the family home. Specific to this study, the purpose of the observations was to examine the supports for families of I/Ts with ASDs in EI (Part C) home visit sessions, namely the family routines utilized as the context for intervention. Additionally, family-centered practices were observed through field notes, generated by the researcher, included the providers' engagement throughout the session in a participatory fashion with the parent, and the willingness to allow the parent to lead the home visit session (Yin, 2014).

Using non-participant approach, the researcher did not engage in questioning the participants during the observation, but engaged in an objective perspective while "jotting" field notes using the structured observation protocol located in Appendix E (Creswell, 2014; Yin, 2014, p. 124). Each of the observations were video recorded for the purposes of further review by the researcher as indicated through family consent (Appendix B). The family and providers observed were encouraged to conduct the sessions as they typically occurred. Following the observed home visit session for each of the provider-family dyads, the researcher engaged in document analysis of the observed and previous three home visit session notes generated by each of the providers. In the following section, the process of document analysis will be described to indicate the rationale and methodology for the data collection.

Document Analysis

Gibson and Brown (2009) expressed that “documentary research refers to the process of using documents as a means of social investigation and involves exploring the records that individuals and organizations produce” (p. 65). Documents, as an empirical source, provide a view of the organizational qualities, along with the social aspects of interaction and functioning (McCulloch, 2004). Hakim (1983) described routine documents as those that are produced within the normal functioning of an organization. EI (Part C) home visit session notes are the routine documents generated by the providers of EI (Part C) services (Gibson & Brown, 2009). Session notes are written at the conclusion of the home visit and provided to the family for the purposes of describing what was done during the visit and how families may carry over the strategies utilized during the visit. Additionally, the documents indicate the Individualized Family Service Provision (IFSP) outcome(s). The IFSP outcomes are the designated goals that were agreed upon at the initial meeting and function to drive the intervention process. Additional aspects of tracking and documentation are reported through the home visit session notes including data tracking, strategies of intervention utilized, and child and family updates. A blank session note is included in Appendix F.

Documents in research assist with answering the research questions (Gibson & Brown, 2009). Following the initial observation, the researcher collected, from each of the providers, a copy of the observed home visit session notes in addition to the previous three session notes. The release of these documents was obtained through a signature of, both, the providers and the family, indicated on the consent forms (Appendix B; C). To add trustworthiness to the data collected, an ability to compare the session notes of the observed visit to that of the previous three visits afforded the researcher the ability to form an overall picture of the supports that were provided to the family during the home visit session. Research identified that providers reported less coaching than occurred in EI (Part C) home visit sessions (Salisbury, Cambray-Engstrom, & Woods, 2012). The comparison between observed visits and session documentation allowed the researcher to gain further understanding into this phenomena (Creswell, 2014). Additionally, as the observation of the home visit may have been influenced by the researcher's presence, the additional and previous three documents provided clarification in the types of support that the family typically received. Specifically, the routine documents generated by the providers were utilized to identify the written recording of the use of family routines during home visit sessions and the carry-over strategies for families. The purpose of the collection of documents was to filter the data according to the research problem. Additionally, documents were combined with observation in order to strengthen understanding through comparison (Gibson & Brown, 2009).

The purpose for utilizing the routines' documents generated by the providers was to search for all documentation related to the use of family routines in home visit sessions. Additionally, the routine documents allowed for further examination of the overall supports provided to a family of an I/T with an ASD in EI (Part C) home visit sessions. Overall, this study utilized the routine documents in order to add additional insight to the written strategies utilized by the providers for the purpose of carry-over support to the family with a toddler with an ASD. Following the observations and collection of the documents, a review of this information assisted with the semi-structured interview of the participants.

Semi-Structured Interviews

Interviews are a common form of gathering rich, personalized information from participants in case study research (Creswell, 2014; Hancock & Algozzine, 2011). For the purpose of gathering direct perspectives of the supports provided to families of infants and toddlers with ASDs, individual interviews utilized a semi-structured format. Semi-structured interviews are well-suited for case-study research allowing for the direct exploration of a topic (Hancock & Algozzine, 2011). In semi-structured interviewing, interviewers prepare a guide of questions that utilize an open-ended format (Roulston, 2010). Roulston (2010) expressed that open-ended questions serve to create an opportunity for the interviewer to utilize probes in order to gain further insight from the participant. Additionally, the basic structure of semi-structured interviews further supports the ability to gain the participants' lived experiences of the phenomenon, or situation, under study (Creswell, 2011).

In order to gain multiple perspectives of the participants, semi-structured interviews were conducted with the seven participants. The setting of the interview was selected by the participants for comfort. Two family members selected to jointly participate in the interview at the family home. One family member requested to participate in the interview via telephone. Three providers requested to meet at local restaurants to conduct the interviews, and one provider selected the agency office to conduct the interview for convenience. A total of six interviews took place. The researcher attempted to minimize as many distractions as possible during the interviews. Each participant interview was audio recorded, with signed consent for the purpose of transcription and further researcher analysis (Appendices B, C, and D). Interview protocols were created for each of the participant roles in order to gain insight into the situation under study (Hancock & Algozzine, 2011). Interview protocols were included for the family (Appendix G), the providers (Appendix H), and the SC (Appendix I).

Transition Theory was used in the development of the interview protocol highlighting The 4 S System engaged by each of the participants experiencing the individual transition (Anderson et al., 2012). The interview items based upon Transition Theory were created to recognize the experience of the self within a particular transition (e.g., the recognition of the providers functioning in a transitional system and their overall experience as an individual within the EI (Part C) system). Additionally, the family's experience in transitioning through their child's diagnosis of an ASD offered further understanding into the family characteristics. The items selected were done so to highlight individual characteristics of the self that have been found to enhance or detract from successful transitions (Frankyl, 2006; Seligman, 2002). Initial items were selected for the interview to encourage comfort of the participants and a general conversational flow.

Two tools developed by McWilliams (2010) were used as supplemental guides within the semi-structured interview: The Family Preparation Checklist (FPC) and the Ecomap Checklist (McWilliams, 2010). Each of the tools were used as guides and adapted by permission from the author (Appendix J). The following sections further describe the tools in detail along with the adapted use for this particular study.

The Family Preparation Checklist. The FPC is a tool used to identify family routines and the families' reported satisfaction within those routines (McWilliams, 1992, 2010; McWilliams & Casey, 2010). Specifically, the FPC explores the family's ecology around the everyday routines through an interview format (McWilliams, 1992, 2010; McWilliams & Casey, 2010). The FPC is designed to gather information through the direct perspective of the family regarding their current experiences of engaging their I/T in the family routines and their overall satisfaction of the routines (McWilliams, 1992, 2010; McWilliams & Casey, 2010). Specifically, questions in the FPC are structured to elicit (a) family main concerns, (b) the main routines engaged in by the family, (c) family functioning within the routines, (d) child functioning within each of the routines, and (e) general satisfaction felt in each of the routines.

Additionally, adaptations in the form of additional question probes were made to the FPC by the researcher. The adaptations included (a) accommodations and support offered in the routines by EI (Part C) providers, (b) overall success of the accommodations, and (c) ease of family carry-over and follow through with the accommodations. Two models of the FPC were created in order to create an in-depth understanding as to the use of family routines including a family FPC (Appendix G) and a provider FPC (Appendix H). The FPC (McWilliams, 2010) was administered to the family and providers assisting with the identification of family routines, current functioning, and provider supports within those routines. The checklist provides an opportunity for families to share their current routines and satisfaction with them. Additionally, as a comparison, using this checklist with providers offered an opportunity to assess providers' knowledge of the family's routines. The use of the FPC in this study further identifies how providers are directly supporting families in their everyday routines through EI (Part C) home visit sessions. Further highlighting the supports afforded to both families and providers in EI (Part C) for I/Ts with ASDs, visual depiction was provided through the creation of ecomaps.

The Ecomap Checklist. Ecomaps are a tool that provide a visual representation of a family inclusive of the supports, formal and informal, and stressors apparent within the family ecology (McWilliams, 2010). Ecomaps have been utilized in social work for the purpose of intervention planning (Hartman, 1995), and have been employed in the research sector highlighting the choices parents make for their children with disabilities (Cole, 2014). Cole (2014) utilized ecomaps as a means to highlighting the microsystemic influences and parental decisions that were made in transition from EI (Part C) to preschool programs. In the creation of an ecomap, McWilliams (2010) suggested that each system of support is recognized in order to minimize the overuse of formal supports. More specifically, emphasis is placed upon the family utilizing the existing natural supports or forming a network of natural supports that may remain consistent in the family's life (McWilliams, 2010).

For the purpose of this study, the ecomap checklist was adapted with permission from the author (Appendix J) in two ways. For the family participants, the ecomaps served to further capture the essence of the family's experience with routines. Using the routines identified through the FPC, a visual representation was created for each of the routines to indicate the consistent participation of individuals in the routines, in addition to the overall experience of, and between, individuals within the routine. The visual representation provided clarification for the researcher and further expanded opportunities for the family to share experiences. For providers in the study, the ecomap indicated their supports in the provision of EI (Part C) home visiting. More specifically, the provider listed their educational preparation and training as the supports to their practice. Each of the supports reported by the providers was further evaluated to gather information regarding the supports of family-centered practices and ASD specific to I/Ts. While the visual depictions of the providers and family maintained a separate focus, the interrelatedness was evaluated in the supports offered and overall family functioning.

Trustworthiness of the interview protocol must be maintained. Edmonson and Irby (2008) asserted that trustworthiness is built into the interview protocol through peer examination. Therefore, the interview protocol was reviewed by a state-level director of EI (Part C) services, four colleagues in the EI (Part C) system, and one family of a child with an ASD. Each examiner offered suggestions for clarification and challenges related to the collection of unnecessary information. The interview protocol was modified based upon the suggestions in order to clarify and reduce unnecessary questioning.

Procedures for Data Collection

Each participant within the case selected a pseudonym to assure confidentiality (Creswell, 2014). The data collection included first, the researcher engaging the participants in provider-family dyad, using the non-participant, structured observations in the family home. The observed family and providers were encouraged to conduct the sessions as they typically occurred. The purpose of the observation was to gauge the context for intervention, namely, the routines utilized by providers as the context for intervention. Three observations were conducted. The order of the observations was dependent of the family and provider scheduling, showing a two-week span between the first and final observation. The researcher engaged in writing “field notes” during the home visit in order to document anecdotal evidence of family-centered supports utilized by providers during the home visit (Yin, 2014, p. 124). Each of the observations was video recorded for the purposes of further review by the researcher. The video documentation was stored using NVivo software and on a flash drive that was stored in a secure location for further review (QSR International Pty Ltd., 2012). The observations were conducted before any other data collection occurred. The researcher purposely selected observations to occur initially in order to allow provider-family interactions to be uninfluenced by any other data collection.

Directly following the observation of home visit sessions with the providers, the family provided the researcher with the current, and previous, three-session notes given to the family by each provider. In the case that the family could not locate the documents, the researcher viewed the documents at the agency with the consented permission of the family (Appendix B). Following the collection of home visit session documents, the researcher scheduled individual interviews with each of the participants. Interviews utilized a face-to-face, semi-structured format, and were scheduled at the convenience of the family, each provider, and service coordinator (Roulston, 2010). Each individual interview was audio-recorded and transcribed by the researcher in order for further review. Bloor and Wood (2006) indicated that while the transcription process is often delegated to a professional, self-transcription allows for a deeper understanding of the data.

The family was interviewed first, in order to gain insight into the individuals involved including their current routines. Two family members opted to participate together in the interview, requested at the family home. One family member requested to participate by telephone. The FPC prompted an identification of the family routines, satisfaction, and accommodations initiated by the providers. Following the identification of the current family routines, an adapted Ecomap was created with the family in order to show visual representation specific to the family routines, all individuals involved in the routines, the relationships between the individuals in the routines, and the accommodations delivered by providers as reported by the family. The family reviewed the Ecomap for accuracy of the information (Edmonson & Irby, 2008). The joint family interview lasted approximately 1.5 hours. The individual family interview lasted approximately 30 minutes.

Following the family semi-structured interview, provider and SC’s semi-structured, face-to-face interviews were scheduled (Roulston, 2010). For the comfort of the participants, locations of the interviews were chosen by the participants. Interviews were audio-recorded and transcribed to allow for further analysis by the researcher. An examination of the provider "self" was elicited through semi-structured questions based upon the literature and transition theory's framework (Anderson et al., 2012). During the provider semi-structured interviews, open-ended questions were structured using an adapted FPC by the researcher for the purposes of gauging the current understanding of family routines, and for comparison to the family's indicated routines. Additionally, providers and the SC answered open-ended questions structured from the adapted Ecomap Checklist. Open-ended questions were structured in order to gain information with regard to their education and training experiences. The Ecomap provided a visual representation of the supports afforded to the professionals regarding their education and training experiences that indicated family-centered practices or utilization of family routines in EI (Part C). Additionally, the ecomaps included an observation of education and training specific to the understanding and treatment of ASD as observed in I/T populations. The provider and service coordinator individual interviews lasted approximately one hour each.

On-going analysis is an integral part of case study research; therefore, as the data were collected from the observations and documents, interview questions were tailored in order to gain further clarification to the identified research questions (Hancock & Algozzine, 2011; Yin, 2014). In order to practice the methods used during data collection, interviews were conducted with two individuals unrelated to the research project as a pilot study.

Pilot Study

Pilot testing is a method for rehearsing the data collection tools prior to their use in the study in order to create ease and modification (Creswell, 2011; Yin, 2014). The researcher enlisted two contemporary EI (Part C) providers unrelated to the study from the disciplines of SLP and SI. Both providers resided outside of the selected county in order to avoid their potential participation in the current study (Yin, 2014). Pilot participant feedback provided opportunity to clarify potentially confusing questions and allow the researcher to ask the questions in order to assess for conversational flow. For example, through the pilot studies, several questions were repositioned in order to allow for a more conversational movement. Two sample ecomaps were created for the pilot participants to allow the researcher the opportunity to become accustomed to creating adapted ecomaps related to education and training supports.

The researcher found the pilot study process to be beneficial for the ease of the interview process and collection of data. In the process of conducting the pilot interviews, the researcher observed several themes emerging from the pilot process. The pilot study further assisted with the addition and modification of questions that allowed for the exploration of educational experiences that influence providers' use of routines in the context of EI (Part C) home visit sessions. For example, it was noted that neither of the pilot interviewee participants experienced a family-centered philosophy or direct education in ASD for I/Ts in their educational or training experiences. Both providers indicated that any training that was relevant to these topics was gained through their self-sought and personally-funded training. Additionally, both providers indicated that they often adopted a more clinically-based model of support for parents. In other words, the pilot participants indicated that they often found themselves working directly with children, with the parents as bystanders, or, occasionally participating in the service delivery.

While both participants reflected a family-centered background and mentality, neither indicated that home visit sessions occurred outside of a single context, namely, the family living room. The pilot finding is reflected in research which indicated that most providers valued family-centered care, yet, service often focuses exclusively on the child (Hodgetts, Zwaigenbaum, & Nicholas, 2014). The pilot interviews allowed the researcher to refine and reflect on the experiences of the providers, while further refining the study to identify factors that contribute to the use, or non-use, of family routines in the context of EI (Part C) home visit sessions for infants and toddlers with ASD.

Data Analysis

Ongoing analysis of the data of the data occurred throughout the data collection phase. Yin (2014) advocated that ongoing analysis is essential in case study research to ensure the research questions are addressed. Following each structured, non-participant observation, the researcher engaged in an inductive analysis of the data, which allowed for the generation of themes to emerge regarding the overall supports provided to the family. Hatch (2002) described the inductive process with the intention to “begin with particular pieces of evidence, then pull them together into a meaningful whole” (p. 161). The inductive process allowed the researcher to explore the data, while forming an initial portrait of each individual case (Yin, 2014; Hancock & Algozzine, 2012). Additionally, the researcher engaged the data from the inductive approach in order to reduce potential bias related to the analysis of data (Edmonson & Irby, 2008).

Following each observation with the participants, the routine documents were analytically filtered according to initial codes that were generated through inductive analysis of the observation data in addition to the theoretical propositions generated from the literature review (Bogdan & Biklen, 2011; Lapadat, 2010; Yin, 2014). An inductive approach was maintained throughout the filtering of the data to allow for additional themes to emerge (Hatch, 2002). Following the participant interviews, an inductive thematic analysis was engaged for each individual case, within the overall case (Gondo, Amis, & Vardaman, 2010).

Hatch (2002) referred to inductive analysis as a procedural-based method in which the researcher must identify the “frames of analysis” (p. 163). In other words, the researcher decides how the data would be looked at through reading and re-reading the data sets for each participant. The deep exploration of the data provided the researcher with general parameters for analysis, or domains (Hatch, 2002). Spradley (1979) expressed that domains are overarching categories that include other relational categories. Specifically, “All members of a domain share at least one feature of meaning” (Spradley, 1979, p. 100). Hatch (2002) defined a concept as “mammals, fish, and birds are categories that fit among other categories under a domain called ‘animals’” (p. 165). Domains were formulated through an inductive process of identifying support, family routines, and accommodations specified through the data. During the inductive stage, the researcher expressed the meaning with regard to the observations, documents, and interviews for each case (Hatch, 2002).

Spradley (1979) indicated nine semantic relationships that served as a guide to the creation of domains utilizing “included terms” and “cover terms” (p. 114). The researcher utilized the *cover terms* as a way to describe the semantic relationships observed in the single case data, as described by the *included terms*. Within the domain analysis, the researcher explored possible subcategories within the domains further extrapolating the data into meaningful categories for outlining the observed relationships (Hatch, 2002; Miles & Huberman, 1994).

The outlined categories within the domains were then examined for potential themes that had developed across domains (Miles & Huberman, 1994; Spradley, 1997). Hatch (2002) referred to the generation of themes as a way to “bring the pieces together” (p. 173). Patterns and links between domains, categories, and raw data were analyzed to uncover the overall meaning in the analysis of the data. As meaning was formulated within each of the individual cases, the analysis and findings from each of the case studies were presented as narrative summaries in Chapter 4 of this document. The inductive analysis of individual cases was warranted to allow the researcher to construct themes that identified the supports, identification of family routines, and accommodations that were provided to the family of the child diagnosed with an ASD.

In order to challenge any bias that may have been apparent in the researcher, a peer in EI (Part C) was consulted to review of initial analysis of the researcher (Edmonson & Irby, 2008). Upon the consensus of the initial data collected within the individual cases, the researcher utilized the initial analysis to move to the cross-case analysis (Creswell, 2011; Yin, 2014). Thematic cross-case analysis indicated the divergent and convergent elements within each subcase. The results of the cross-case analysis served to answer the research questions outlined within this study.

The dissertation committee was consulted in order to challenge the findings as a process of peer-review (Edmonson & Irby, 2008). Any inconsistencies were further examined by the researcher to form consensus with the dissertation committee. The researcher then invited the participants and agency director to participate in the dissemination of the results of the study. This meeting was held at the agency, and provided a means to gather any additional insight through member checking, in addition to an ability to share the results of the study with the participants (Edmonson & Irby, 2008).

Braun and Clarke (2006) identified writing the final report as the final level of analysis. In Chapter 4, the researcher formed the identity of each case through detailed description. The researcher utilized the findings from the cross-case thematic analysis, as a means to answer the research questions for the overall case study. Additionally, the researcher positioned the findings within the larger scope of research, discussing the findings found in Chapter 5 of this document. Strict measures of consultation were taken in order to reduce personal bias of the researcher throughout this study, thus increasing the trustworthiness of the researcher's conclusions (Edmonson & Irby, 2008).

Trustworthiness

The researcher engaged in multiple measures throughout the study process in order to ensure the trustworthiness and validity of this study. The researcher engaged the research design with consideration of key informants to the EI (Part C) Program, strengthening a relevant study with construct validity (Yin, 2014). Edmonson and Irby (2008), and Yin (2014) further added that utilizing the method of triangulation adds to the internal validity of a study. Additionally, the use of multiple theories as a framework further enhanced the internal validity of the study (Edmonson & Irby, 2008; Yin, 2014). Theoretical validity led to the creation of propositions, which were based in available literature, offering an opportunity for the findings of the study to be generalized within a strong literature base (Yin, 2014). The researcher's established authority, both through a detailed review of the literature, practical experience as a provider, and previous state-level coach in home visiting, further strengthened the truth value and applicability of the study findings (Edmonson & Irby, 2008).

During the data collection phase, the researcher ensured a process of data triangulation (Creswell, 2011), code-recode, and researcher reflexivity (Edmonson & Irby, 2008). These initial measures provided the study with both internal and construct validity, and, with neutrality of the researcher, further added to the overall truth value (Creswell, 2011; Edmonson & Irby, 2008; Yin, 2014). As the research progressed into the data analysis phase, measures of patternmatching (Yin, 2014), member-checking, and a participant feedback session (Edmonson & Irby, 2008) added to the construct and interpretative validity of the study. Data triangulation, peer examination, researcher experience, and a structural coherence provided a truth value to the data analysis described by Edmonson and Irby (2008).

The composition phase of the study engaged the review of key informants, such as state-level EI (Part C) (Part C) leaders, along with providers serving the field, unattached to the research study. This informative measure provided a construct validity, adding to the neutrality of the study (Edmonson & Irby, 2008). Dense description of the participant cases, and the overall case in the composition, positioned the research for theoretical generalization through consistency and applicability (Edmonson & Irby, 2008). In this study, the methods employed added to the reduction of researcher bias. The following section will include the researcher positioning for the purposes of identifying personal interest in this area.

Researcher Positioning

The researcher was serving as an SI for two counties in Pennsylvania. While the specialization area of the researcher (SI) is a role that was studied, this study occurred outside of any counties served by the researcher. Therefore, the study was not conducted with a family that the researcher was, or would be, working with as an SI. Additionally, all providers, SC, and the family in this study were unfamiliar to the researcher prior to the study.

The rationale for this study and methodology choice stemmed from the researcher's participation as a provider in the EI (Part C) system as an SI in Pennsylvania and West Virginia. Additionally, the researcher served as a trainer and master cadre member for the state of West Virginia Home Visitor Coaching Practices. In addition to the work with I/T populations as a SI, the researcher also worked as a behavioral therapist for children with ASD, and has been certified as an RDI™ Program Consultant in the past. Therefore, with a vested interest in the supports provided to families of I/Ts with ASDs, the researcher relied upon the dissertation committee and peer review for any challenges regarding researcher neutrality. A detailed literature review in the practices of coaching, home visiting, family-centered services, and use of family routines was conducted to initiate this study. Additionally, literature was reviewed, specifically, for the identification of ASD in infancy and toddlerhood, for the purposes of positioning the disorder within the EI (Part C) Program. Due to the considerations of the ecological systems theory, historical aspects of the EI (Part C) Program and ASD were thoroughly reviewed.

Through the researcher's personal experiences serving the (Part C) system and thorough review of the literature, the selection of a case-study approach was determined to provide an in-depth exploration of the phenomenon of provider use of family routines for the families of infants and toddlers with ASD. The case study approach provided multiple, in-depth, perspectives to the problem under study, the EI (Part C) supports for families of infants and toddlers with ASD, and, more specifically, the use of family routines as the context for intervention. The researcher's counseling background also added to the ability to interact with participants as an active listener throughout the strategies of engagement, creating comfort in interviews, building rapport, and leading to expand on open-ended questions. While the researcher held personal experiences with the EI (Part C) (Part C) Program, extensive measures were taken in order to safeguard against bias appearing in the data collection and analysis throughout the study.

Chapter Summary

This chapter provided a detailed review of the methods utilized in this study. A detailed literature review was conducted that enabled theoretical propositions to develop surrounding the situation of supports in EI (Part C) home visiting practices. Through a case-within-a-case approach to this qualitative research, the researcher sought to provide a description of the supports received through the EI (Part C) Program from the perspectives of a contemporary team involved in the system. More specifically, the research aimed to uncover the providers' supports for the inclusion of the I/T with ASD within the family's routines. A description of the accommodations for these routines was a focus of the study.

The research engaged a qualitative approach based upon the desire to identify the lived experiences of a contemporary team supporting an I/T with an ASD (Creswell, 2011). Through the use of observation, document analysis, and interviews, the researcher was able to use an inductive approach to thematic analyses in order to describe the results of the study (Hatch, 2002; Lapadat, 2010; Yin, 2014). Inductive methods were used as a means to analyze the individual case representations within the study. This method was selected due to the researcher's ability to approach the data inductively with no preconceived notions of the results. From the inductive analysis, the cross-case analysis engaged a thematic analysis for the purpose of describing the case as a whole within the confines of the theoretical framework used for this study. Measures of trustworthiness were built into the study, positioning the study to generalize the findings to a larger theoretical basis.

Chapter 4 will highlight the results of this study. Individual cases will be discussed, in addition to the cross-case results discovered through the analysis. Chapter 5 will position the findings within the larger theoretical and literature base.

CHAPTER 4

RESULTS

This chapter reports the findings of this qualitative case within a case study describing the supports afforded to families of I/Ts with ASDs. Additionally, providers' influences and use of family routines in the context of EI (Part C) home visit sessions were presented. Observations (*N = 3*) were conducted to directly identify the interactions and context that occurred between the family-provider dyads. Document analyses were conducted to explore the written documentation of the observed and previous three home visit session notes for each of the providers (*N = 12*). Finally, semi-structured interviews were conducted (*N = 7*) with each of the participants. Data were collected to answer the following research questions:

1. In what ways are providers supporting families of I/Ts with ASDs in EI (Part C)?
2. How are families of I/Ts with ASDs supported in their daily routines through EI (Part C) home visit sessions?
3. How are EI (Part C) providers and families supported and influenced in their implementation of the family-centered use of routines for I/Ts with ASDs?

Weatherbee (2010) stated that reporting case study research is "complex" and "demanding" due to a "wider latitude and a greater range of choice for the form and format of their case reports" (p. 807). Initially, the results section aimed to provide an in-depth view of the individual cases within the overall case using an inductive approach (Hatch, 2002). Findings of the research questions for each of the individual participants were indicated in the distinctive sections. Additionally, following the inductive approach, a thematic analysis was conducted using a deductive approach in order to identify the prominent themes from the perspective of a cross-case analysis. Findings were presented to answer the study's research questions across the cases.

A Presentation of the Individual Participants

An inductive analysis was utilized for each individual case (Hatch, 2002). Participant pseudonyms were used to ensure the privacy of the participants (Hancock & Algozzine, 2011). The following section describes the individual participants within the study (Stake, 1995). The family presentation includes an observance of the situation, namely, the family's identified process in the utilization of EI (Part C) services. Following the introduction of the family each of the provider participants are described.

The Family

The family within the case was comprised of three participants including Biancah (mom), Chris (dad), and Donna (grandmother). Donna was included within this study due to the family's living situation. Biancah and Chris reported that they were currently residing with Donna until they were able to secure their own living arrangements. Additionally, Donna was the child's [Cole's] caretaker during the day and was an active participant within his EI (Part C) services. Cole, a two and a half year old boy, was referred to EI (Part C) at the age of 12 months due to "falling off the growth chart" for weight. Biancah and Donna described the situation as stressful due to the fact that Cole would not eat any food. Reportedly, Cole never ate baby food; he would only take a bottle. The family described that they had "tried everything" and had expressed their concerns to the pediatrician multiple times; however, their description of the process indicated that their concern went unheard until Cole's weight was significantly low.

During that time, concerns for Cole's social behaviors were observed by a professional within the EI (Part C) Program and brought to the attention of the family. Mom expressed frustration with the experience. She described many people asking about specific social behaviors; however, she expressed that professionals had never mentioned “the word autism” to her prior to that time. Mom described looking autism up on the internet and reported that she recognized Cole’s behaviors aligning with the red flags for ASD. At the age of two, Cole was diagnosed on the autism spectrum. The family continues to receive supports through EI (Part C) from the disciplines of SC, SI, SLP, and OT.

Biancah (Mom). Biancah is a 20 year old woman who gave birth to Cole in high school. She described being a “teen mom” as difficult; however, during the interview she was reflective on the joy and motivation that Cole brought to her life. Biancah described never having contemplated college in her early years. Following the birth of her son, however, she expressed her desire to pursue a career.

> You know if it wasn’t for Cole, I don’t think I would have ever went to college. I don’t think I would have done much. I mean I’m sure I would have had a job of some sort but… I always said, ya know, when I was in school, I ain’t going to college. (laughter) Once I’m done with school, I’m done with it, who wants to go to college? (laughter) but then after I had him I was like, alright, I need to do something with my life. I didn’t have, like, the best home experience.

She recently completed a two-year degree and works as a dental hygienist. She expressed that her work schedule does not allow her as much time with Cole as she would like. She described that certain routines offer them the individual time that “keeps her going”. Specifically, she described that their night time routine of cuddling and sleeping together allowed for a strong bond.

Chris (Dad). Chris, the biological father of Cole, is 22 years old. He currently works in the restaurant business as a delivery driver. Chris reportedly finds enjoyment in being with his family by, "just hanging out. Just staying at home, staying with the kid, watching tv… later at night, maybe playing a couple of games, watching a movie." Chris expressed that patience is required in parenting Cole, but conveyed his gratitude for everything that Cole has added to his life.

Donna (Grandmother). Donna is 52 years old woman, who recently retired from her 28 year career in nursing, in order to become Cole's full-time caretaker. She expressed that she "love[s] to see [Cole] happy" and finds great joy in spending her day with him. Donna is an avid reader and expressed that she finds joy in reading nursing journals to remain current in the field. She also expressed her drive to understand ASD, through reading, in order to assist with Cole's progress.

Family Concerns

Interview data collected from the family participants uncovered two identified terms that described their overall concerns for the child, including: (a) present concerns and (b) future concerns. Present concerns were described as the fear of taking the child into the community due to what mom described as "elopement" (i.e., running/wandering away from the family). This flight behavior was expressed by each of the participants as a present and significant concern, which harbored their ability to enact the family routine of going into the community. The family shared several stories of Cole walking away from them during outings in public places. Biancah described the behavior as Cole "being in his own world" and "not caring where [they're] at". Additionally, within the present concerns, the family indicated that his social connection and interaction were problematic. The concern was expressed more frequently in the interview with Biancah and Donna than with Chris. Biancah also indicated that Cole often appears to “only hear what he wants”. The selective attention affected his ability to follow directions, play with the family, and participate within the family routines. The family identified these areas of present concern; however, they also indicated concerns for Cole’s future.

Future concerns were expressed by Chris as a fear “that [Cole’s] condition won’t improve”. Biancah and Donna expanded upon this concern stating that they feared how children in school would treat Cole. Biancah expressed concern for his ability to navigate the social aspects of the school setting and the effects that “being made fun of” would have on his later years. Additionally, the family expressed concerns in the educational system’s ability to challenge Cole’s academic capability. For example, during observations, Cole was interacting with grandma by asking her to draw shapes. Cole was correctly able to identify and clearly enunciate complex geometric shapes such as isosceles and scalene triangles, along with 3-D geometric shapes including triangular and hexagonal prisms. The family reported that Cole requests for them to draw the shapes, and that he enjoys naming them. This high level of academic skill prompted a future fear that included anxiety that Cole’s abilities would not be challenged and he would become bored. Donna indicated:

> Like [Biancah] said, everybody gets picked on but with him, that’s, I’m more concerned about that than my other grandkids and meeting his needs intellectually… because of how smart, I mean, he’s smarter than us. How do you teach someone who’s smarter than you? (laughing) You know what I mean? At 2 I’m already looking stuff up. What am I going to be doing at 4?

The Providers

This section provides an introduction to each of the providers serving the family within this study. Each of the participant providers held a Master's degree in their respective field. Additionally, each of the providers expressed enjoying their work in EI (Part C). The providers' identified supports allowed for the cross-case analysis of research question three "*How are EI (Part C) providers and families supported and influenced in their implementation of the family-centered use of routines for I/Ts with ASDs?*" found later in this chapter.

Kai (Service coordinator). Kai has been serving as a SC for two years in the EI (Part C) Program. He describes his role for the family as a direct support for the services that are offered. Additionally, he expressed viewing himself as a means "to making things easier for families" who are experiencing challenges related to their I/T's development. He expressed his philosophy of EI (Part C) from a place of flexibility indicated as:

> my philosophy is, you kind of, you go with the flow you don't make assumptions, and cause each case is very different and, you know, it almost kind of goes back to what I said earlier, you know, the best laid plans and sometimes you need to throw them out the window.

This flexibility provided to the families, with his drive to create ease in situations for families of I/Ts, was indicated through his own personal challenges. Kai expressed that his drive for working in EI (Part C) stemmed from his own involvement with special services due to significant physical disabilities present at birth. Kai reported that his purpose with families is to encourage their belief in their child's capabilities, as his parents did for him.

Kai's educational progression began in the field of elementary education, where he expressed having no formal support in ASD, EI (Part C), or family-centered systems. He expressed his desire to have learned about EI (Part C) services sooner in life. Kai indicated that with the knowledge of the EI (Part C) Program, he would have chosen this career path much earlier in life. His education ultimately turned toward youth ministry following an opportunity to work at a youth camp during a summer. He expressed that within his master’s level educational experience, there was a heavy focus of family-centered systems from the youth ministry perspective; however, it was not directly related to EI (Part C) services. Additionally, EI (Part C) services or specific training in ASD was not present within the youth ministry curriculum. Kai discovered the opportunity to work with EI (Part C) and described himself “finding a home”. Within the mandated courses and training opportunities afforded to him through EI (Part C), Kai has been provided with training related to ASD and the model of EI (Part C) services; however, he expressed he was unaware of any specific training related to family-centered systems. Kai articulated that his supervisor provides him with guidance and support in his job performance. Additionally, as health issues arise, his supervisor is understanding and assists with any difficulties in which he may need assistance. Kai expressed due to recent health issues, he has not pursued any additional trainings or activities outside the requirements of the position. An ecomap indicating Kai’s educational and training experiences is shown below in Figure 2.

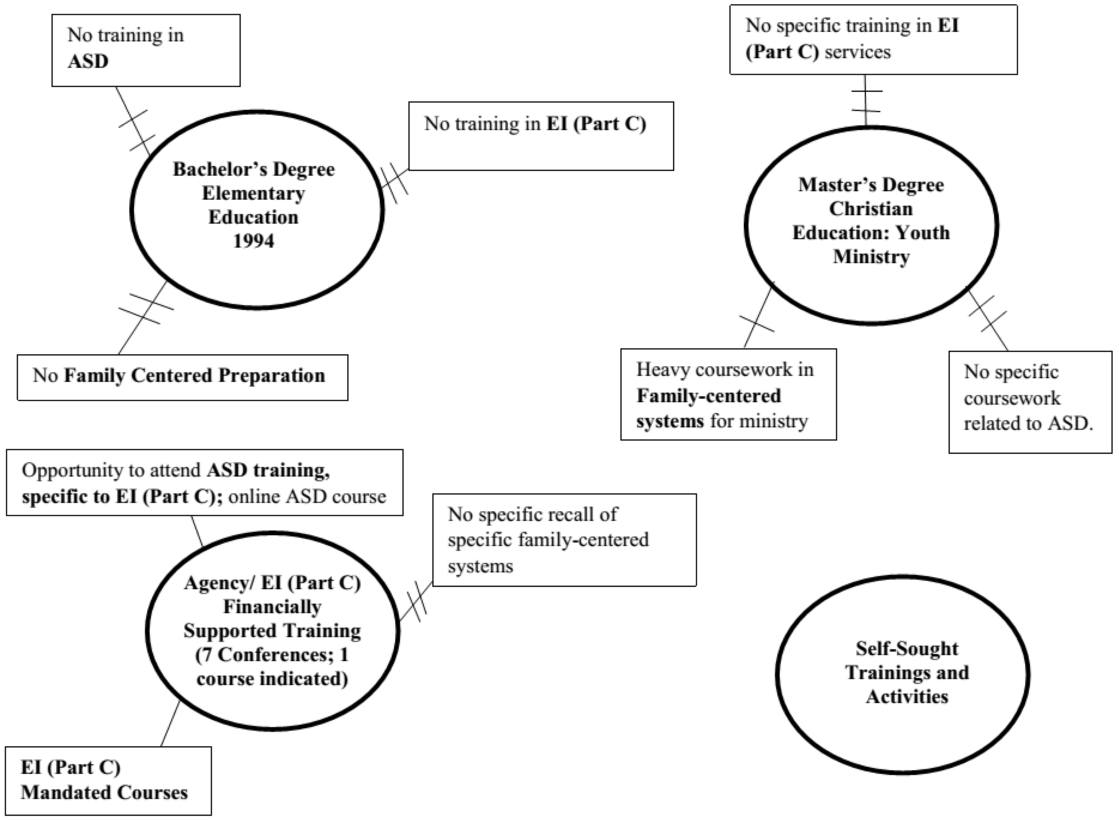

Figure 2. Kai's education and training experience. The line indicates a relationship between education/training and core feature. One strike through represented less emphasis and two strikes represented no evidence.

Nikki (Special instructor). Nikki is a SI in the EI (Part C) Program serving in a supervisory role within the agency. Nikki has been serving as an SI in EI (Part C) for 39 years. Her education and training included a Bachelor's degree in Family and Child Relations along with a Master's degree in Education. While her bachelor's degree provided little support for family-centered systems, her master's degree provided a wealth of EI (Part C) family-centered knowledge along with education on ASD. Additionally, Nikki was a seeker of knowledge attending multiple trainings afforded to her through her agency. She expressed a deep desire to understand the situation of ASD through attending trainings, utilizing online coursework, family contacts, and seeking knowledge via the internet. A visual representation of Nikki's educational experiences is presented in Figure 3 at the conclusion of this section.

Nikki appeared to use compassion as a driving force in her interactions with families as evident in the interview and through direct observation. She reflected on her compassionate stance in her ability to allow families to express when they were feeling overwhelmed by the numerous suggestions provided by the EI (Part C) professionals. She expressed her desire to create positive relationships with families that allowed them to express their feelings to her for the purposes of finding a solution or simply a sense of feeling understood. On several occasions, during the observed visit Nikki served to lessen the family's expressed feelings of anxiety toward the child's transition from EI (Part C) to Part B services. Overall, Nikki appeared to assume a positive and compassionate approach to family support from her education, training, and general outlook on EI (Part C).

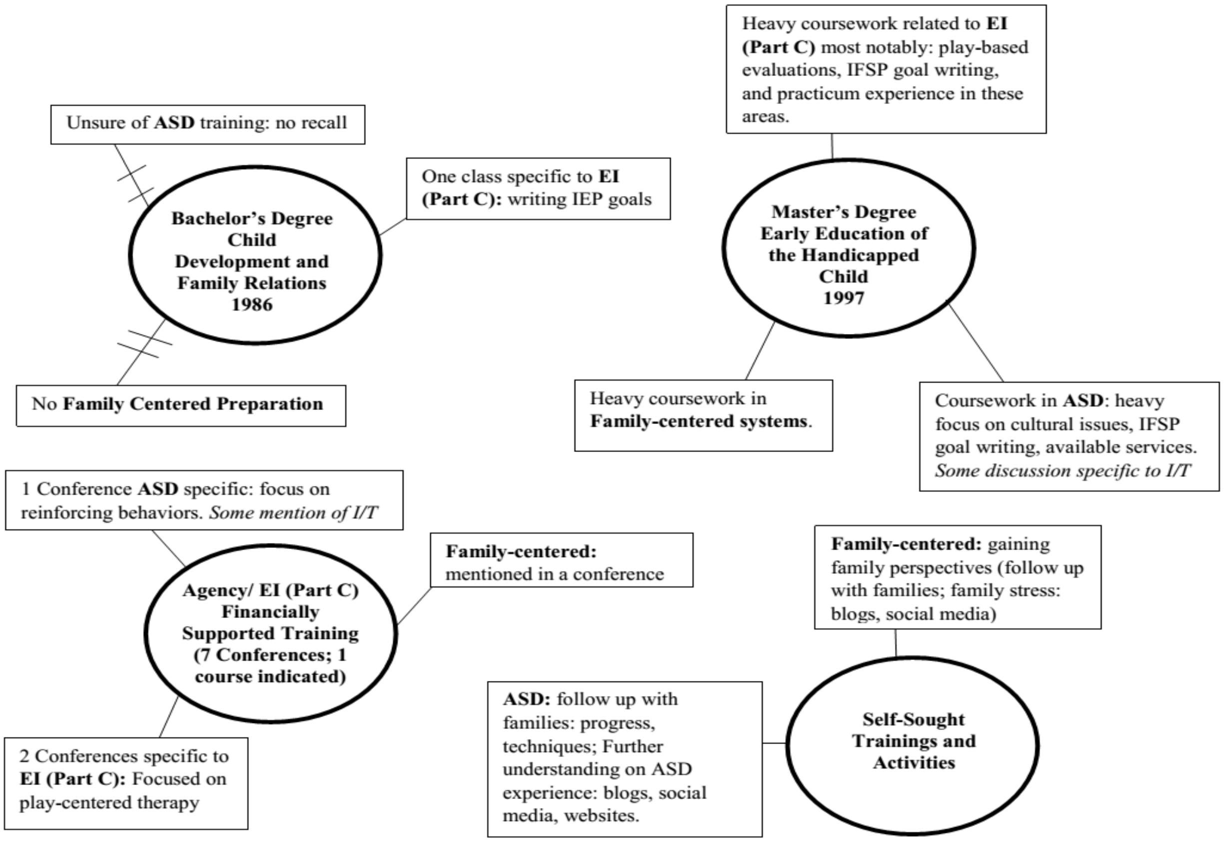

Figure 3. Nikki's (SI) education and training experiences. Line indicates a relationship between education/training and core feature. One strike through represented less emphasis and two strikes represented no evidence.

Chloe (Occupational therapist). Chloe is an OT serving in the EI (Part C) system. Chloe has been serving as an OT in EI (Part C) for 15 years. She described her experiences of working with I/Ts with ASDs as both frustrating and rewarding. Chloe described her "love" for her job, and that she could not imagine herself "doing anything else". She also described a feeling of support from her agency and the colleagues that she works with. Regarding her supervisor, she expressed that, "We can talk anytime. Sometimes we do visits together just because of the time, or whatever, but anytime I have any questions or need anything I can always call her."

She described her frustration stemming from the position of often having to work hard to engage parents within the sessions. Additionally, she described her process of learning the work of family-centered systems with EI (Part C) as "on the job learning". More specifically, Chloe described her education and preparation in both her undergraduate and graduate degrees, which provided little to no education in ASDs. Additionally, she was not exposed to any training in EI (Part C) or the family-centered model. She described her educational experiences as heavily theoretical, which focused on clinical skills. Despite this strong theory-based learning, she expressed that several of her Master's level professors instilled a functional approach to OT which she described as a driving force to her work with families.

While her agency offers the opportunity to attend trainings, Chloe described that with a family, it is often difficult to attend these trainings. She has, however, taken advantage of several trainings which were focused upon feeding issues for children with feeding tubes. Several in house opportunities have provided her with "refresher" courses in EI (Part C) models of support. Figure 4 provides an ecomap of Chloe's education and training experiences related to ASD, EI (Part C), and family-centered systems. When asked how she would describe her work with families, she expressed a desire to impact a child's life through the education and support of the family. Chloe expressed her work as:

> The occupations of childhood. And it's really just our job to go in there, um, go in and help the parents, to educate them help their child because they're the one that are with them all of the time, not us. We need to show them, how to help their child.

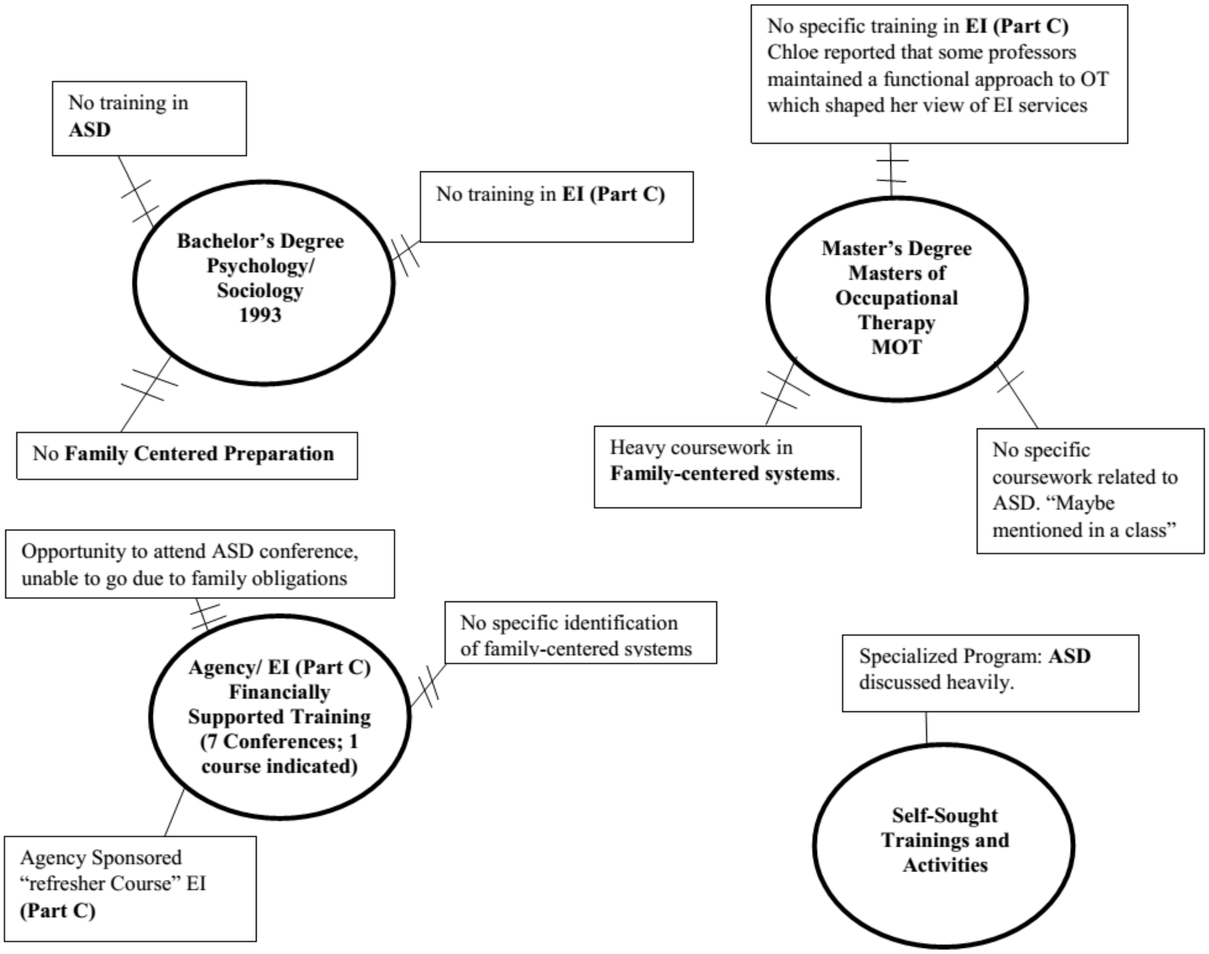

Figure 4. Chloe's (OT) education and training experiences. Line indicates a relationship between education/training and core feature. One strike through represented less emphasis; two strikes represented no evidence.

Sarah (speech and language pathologist). Sarah is a SLP in the EI (Part C) system. She has been working as a SLP in EI (Part C) for 13 years and with the family within this case study for approximately one year. Her education and training included a Bachelor's degree in

Education along with a Master's degree in Speech and Language Pathology. Sarah reported feeling underprepared for her work with young children with ASD in the EI (Part C) Program. She reported that her master's and undergraduate educations did not include a course, or mention within a course, of EI (Part C) or the family-centered model. Her undergraduate program included a class that touched upon ASD specifically for infants and toddlers described as:

> A little bit, just kind of like the blank stares and how they didn't really attend to anything. It wasn't like a whole semester on it or anything. Like a piece in a class. Probably, like in my language disorders class, it was mentioned.

However, reportedly, there was no mention of ASD for I/T populations within Sarah's master's program. Sarah described a desire to have encountered the opportunity to have had "a separate class, like an elective for that. I wish there would have been. Something like that would have been very helpful. Even a mandatory class would be. We do need it."

Sarah described herself as a seeker of knowledge stating "every chance I get, I try to attend some sort of training". She considered herself "lucky" to have any training financially taken care of through her agency, which affords her to continue her learning for the population of I/Ts. A graphic representation of Sarah's training and educational experiences is presented in Figure 5. Sarah described her philosophy as play-based, taking a developmental stance on the importance of play experiences in learning. She described that she utilizes the play model as a means to her work with families. Sarah provided the researcher with a self-created form that she provides to families as they begin their work together. This form served as an educational document for parents, which indicated her philosophy of play-based supports, along with developmental justification. She expressed that this provided parents "right off the bat" with an understanding that what they are doing together is "not just play, but play with purpose".

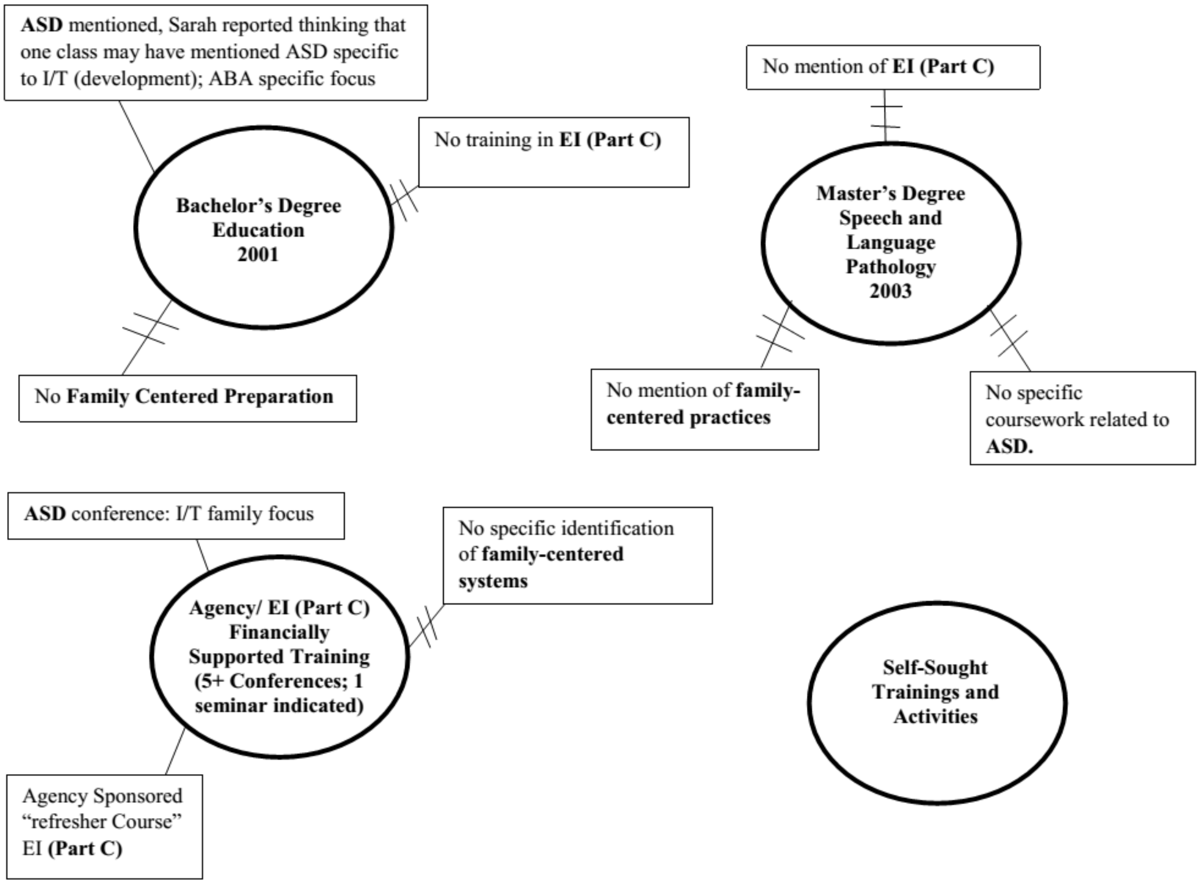

Figure 5. Sarah's (SLP) education and training experiences. Line indicates a relationship between education/training and core feature. One strike through represented less emphasis and two strikes represented no evidence

Supports for the Family

This section presents the data collected to answer the first research question "*In what ways are providers supporting families of I/Ts with ASDs in EI (Part C)*?" To answer the first research question, family and provider described supports provided within EI (Part C) home visit sessions are shared. Data were gathered through the observation, document analysis, and interviews for each of the participants. Initially, findings are presented as the individuals' overall themes. Initially, the individual family findings of described providers' supports were presented. Following the presentation of the family's described supports each individual providers' reported supports were described. At the conclusion of the section the cross-case findings are presented to answer the research question.

Family Identified Supports

Overall, the family regarded the supports delivered by the providers to have been an incredible asset. Each family member offered statements of gratitude toward the program and each of the individuals who had assisted in their EI (Part C) experience. Specifically, Biancah stated, “Honestly, I don’t know where we would be, like, with him right now if it wasn’t for them.” Donna added, “They told us to do things with him that I would have never thought of…like, I would have never thought that the bubbles would help him eat.” Further, Chris expressed, “Well, it means a lot. He got to see a lot of faces and meet a lot of people that are genuinely interested in helping him.” The overall reports of the family indicated that their relationships with EI (Part C) had made a positive impact upon the family. Using a thematic approach to data analysis, three overall supports were described by the family, which included: (a) expectations, (b), suggestion and (c) follow-up. Each of the areas were supported across the data sets, thereby providing reliability for the generated themes.

Expectations. Expectations were described as knowing what the providers’ expected and Cole’s recognition of the expectation. For instance, Donna stated:

> but he seems to know what they expect too, cause he’s now answering [Sarah] real good yes or no, cause he knows that’s what she wants, and with [Nikki], the next day after we were building puzzles that she brought, he pulled out the chair and said ‘sit in the chair please’, so he knows that she likes him to sit in the chair, and [Chloe] he’s just known her the longest.

The family indicated that the support of providers' expectations, and Cole's recognition of the expectations, served to provide the family with an understanding of what was expected during the EI (Part C) home visiting time.

Suggestions. Additionally, within the identified supports provided to the family, the theme of suggestions for enhancing Cole's skills through defined activities was described by the family. Suggestions were described to enhance Cole's skill-set during the routines of playing, eating, and mealtimes. Most notably, suggestions for the use of rewards and Cole's required participation in activities were indicated by the family as supports delivered by the providers. Biancah and Donna expressed an engaged participatory role within the suggestions conveyed by the EI (Part C) providers. Biancah described:

> Well like she's (Donna), she's always here for [Sarah]. I'm not really here for [Sarah's] sessions because [Sarah] likes to do more like afternoon time. Yeah, I'm always at work or I'd be way more involved with those ones but I'm almost always here for [Nikki] and um, [Chloe], and same with Donna, she's usually always here for [Nikki] and [Chloe] and she is always here for [Sarah]. I'd say we're both pretty involved with, cause even whenever [Sarah's] here I try to incorporate what she's suggested us doing.

A finding presented within the data set indicated that Chris was not heavily or directly involved within the service delivery. Chris stated that he's "not as involved as [he'd] like to be, to be honest." Chris's described his non-participatory stance as not feeling he knew the right things to say in situations during home visit sessions. Additionally, he described feeling "dumb" when he shared his ideas or feelings related to Cole. He described "watching" or observing the suggestions and then implementing the supports during his own time with Cole. The concept of watching the child-provider interactions, was evident in each of the family members' descriptions of the services. For instance, Chris stated, “they’re there to show you techniques and so you’re just really there to watch what they’re doing so you can do it later and, just kind of sit there and just watch.” Additionally, Biancah stated, “but for the most part we kind of just let them [providers and Cole] do their own thing, and anything they have to, recommend or anything like that, we pretty much agree on.”

Follow-up support. An additional support indicated by the family included the providers’ use of follow-up to maintain progress. Follow-up was described as asking how the strategies were beneficial to the family and any difficulties that they family had in their implementation. The follow-up support enacted by the providers was indicated to be beneficial due to the family’s description of an overwhelming amount of suggestions between each of the providers. The family indicated that remembering the suggestions of all three of the providers was sometimes difficult. The family described the providers’ use of follow-up from the previous week as a means to maintain the focus of the suggestions and supports. Additionally, the family described the beneficial support of providers’ non-judgment in the cases when a suggestion that was not implemented by the family. This non-judgmental type of support was recognized as a means for maintaining a positive relationship with each of the providers. The family indicated that the providers appeared to show understanding if a suggestion or technique was not followed through with before the next visit.

Provider Identified Supports

Individual thematic analysis using an inductive approach allowed the researcher to explore the data in depth for each participant searching for relationships that described the providers’ observed, documented, and described supports provided to the family. Initially, the represented cases, are presented (Yin, 2014). The findings serve to answer the first research question, “*In what ways are providers supporting families of I/Ts with ASDs in EI (Part C)*?” Following the individual case representations, the overall case findings are presented.

Nikki. The ways in which Nikki supported the family of the toddler with ASD revealed four included terms or themes within the data set, identified as: (a) enhancing child skills, (b) engaging families, (c) responding to child needs, and (d) responding to the family. Initial identification of supports showed that enhancing the child’s skills, was a focus area; however, additional elements of family engagement and responsiveness were observed. Figure 6 expressed the occurrences of the identified themes observed in each of the data sets.

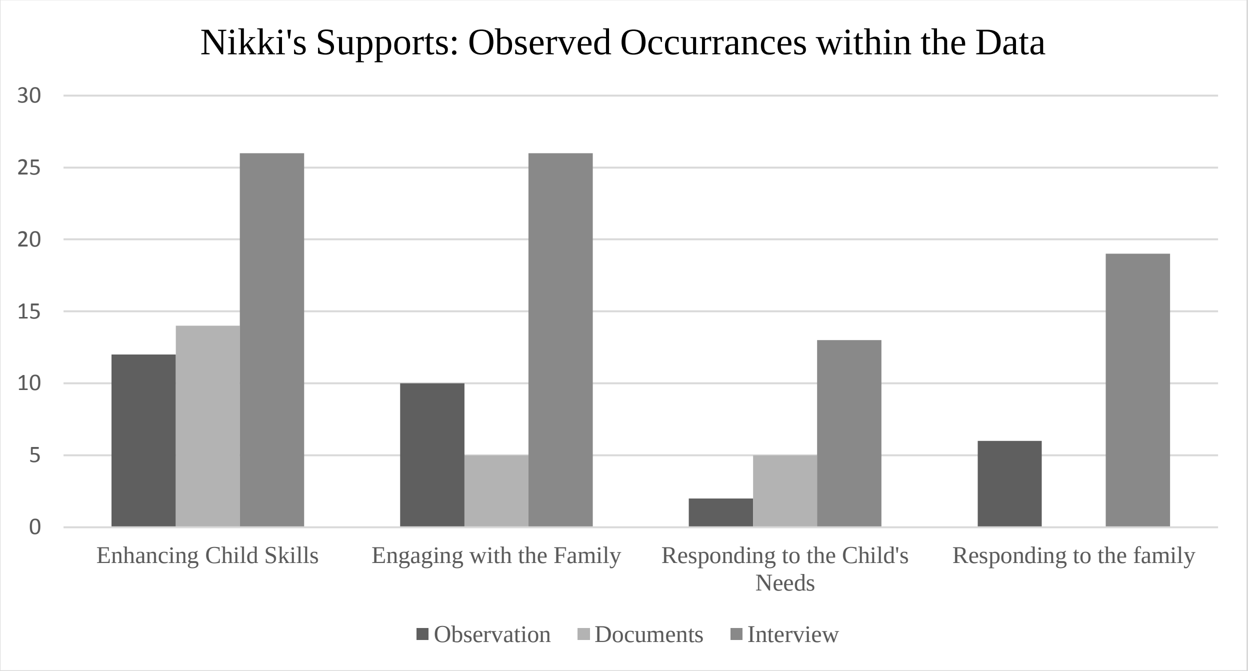

Figure 6. Nikki’s supports: Observed occurrences within the data. This figure represents the observed occurrences of supports utilized through each data collection set by Nikki.

Enhancing child skills. Enhancing the child’s skills represented the bulk of the data collected represented in each of the three data collection steps. Nikki described enhancing child skills for an infant or toddler by way of teaching play skills, engaging in eye contact, and using cognitively stimulating items such as puzzles and art activities. Nikki described *learning to attend* as an area of deficit for I/Ts with ASDs. For example, Nikki described supporting Cole's attention through conversations with the family that encouraged the use of a small table to increase attentional skills related to learning and play.

> I do think that there are quite a few kids that it helps them to attend. That 90-90-90 type of thing. I mean I have kids where their feet don't touch, to put something under their feet to touch just because it helps to focus attention.

Nikki's use of child skill enhancement was observed in each of the data sources. A majority of the observed home visit supported Nikki's descriptions. Services provided during the visit occurred predominately at the table with the provider and child working on various puzzles and shape naming. Documents produced additional support for the identified theme. For instance, attentional skills were documented widely through the use of skill based instruction such as follow directions, matching, maintaining eye contact, and the child communicating functionally. Data collected within the ways in which providers' support families of I/Ts with ASDs relationship produced several subthemes related to Nikki's attention to skill development including, (a) self-regulation, (b) utilizing strengths to progress need areas, (c) communication, and (d) play, not therapy.

Self-regulation. Self-regulation was observed as a support to the family through providing the child with: (a) opportunities to wait for desired items or activities and (b) ending desired activities. The sub-category also engaged the ability to tolerate and self-regulate during unwanted transitions. The following quotation taken directly from a home visit session note highlighted the type of self-regulation support Nikki was able to provide to the family during a home visit session:

> Five minutes into the session [child] began asking for bubbles. We did bubbles for a while, but [child] would not let us end the activity. We decided to set a timer and told him when it went off the bubbles were done. Once the timer went off we stopped the bubbles. He did fuss, but we explained that when the timer went off we would blow bubbles again. The amount of time in activities was set for 5 minutes. [child] did well for the first 35 minutes. When the timer went off we did bubbles. While mom and [child] did bubbles I got the next activity ready. (Bubble time was set for 3 mins) [child] did much better during the next set of activities, I even paused the timer.

Nikki actively engaged the use of a rotation between preferred and non-preferred activities as a means to encourage self-regulatory skills. Nikki described within the interview that both preferred activities and the use of child strengths encouraged the child's development of self-regulation, participation, and interest in the activities.

Utilizing strengths to progress need areas. Nikki described the process of identifying child strengths as integral to her practices in EI (Part C) for I/T with ASD. Her experience with the identification and use of child strengths related to the attentional needs of I/Ts with ASDs. For instance, the child in this study had developed the ability to sight read at the age of two. Nikki asserted:

> And in his case…he learned to read, it was totally incidental, nobody taught it to him. But it's obviously a strength that can be used for a variety of things, like even his communication. Using sentences versus like (asking) what is this? And him saying "what is it?" (Referring to repeated language, or echolalia) Like, using that… you could even do the sentence and have the answer written so that he learns to speak in a sentence… you're building, you're using one of his strengths to aid in developing his skills in a weak area.

Nikki indicated that through the identification of child strengths and areas of enjoyment, opportunities for interaction became more available between her and the child. While communication was indicated to be an area stimulated through the use of the child's strengths, a depth of support related to his functional communication warranted a single sub-category.

Communication. During the interview, Nikki expressed communication as a core area of deficit related to ASD and described communication as a pivotal interest in her role with the family. Within the documents, supports were utilized through engaging with the family and Nikki's modeling of the techniques. For instance, one of the progress entries indicated that the child had begun to say "I need help" although not consistently; however, he was attempting to guide the adult to the desired item. Nikki's descriptions of her experience with the process of EI (Part C) for I/Ts with ASDs highlighted the delicacy of assisting families in shifting their focus from accommodating the needs of the child to requiring more functional communication.

> I think it's just that they're focused on the object that we need to just get them to start focusing on us instead, start having some sort of communication to us. That's one of the things, and one of the things we need to stop is meeting all of their needs before they do it. And we need to do it gently, because it usually increases."

The "gentle" approach described above was echoed multiple times throughout the interview and observed in both the documents and observations. This gentle approach, described by Nikki, also engaged the final subtheme within the enhancing child skills category which Nikki described as, "Play, not therapy".

Play, not therapy. Nikki described her approach through a sturdy rationale of play as a developmental and family-centered approach. Within the interview data, Nikki described a strong desire to impart the developmental nuances of play within her work. More specifically, within the interview, Nikki reflected the family-centered philosophy of using family toys and items versus bringing outside items into the home. She expressed that:

> I really get upset when providers still bring toys into the house because for years we brought, and I heard so many people say, where can I buy that toy? Where can I buy it? If a kid doesn't have toys, start making toys, a newspaper with duct tape on it, it doesn't matter. You don't have to go out and spend a lot of money. But when you take your bag of tricks back out of that house that kid is still left with nothing at all, period.

Nikki expressed that play is the building block for learning in I/T populations; however, she also identified the family-centered approach of using the family's resources within the play. She expressed in the interview that the recognition came in light of watching an older sibling using a bag of toys while interacting with his younger sibling who was receiving EI (Part C) services. She expressed her concern for the situation in the interview by recalling, "I saw was older brother who, made bags of toys to sit down and play with his brother and he did his paperwork and he did his paperwork, and I'm like… what are we doing, what are we saying?"

Documental data while supporting developmental play activities within the context of the session provided lower amounts of observed support for the family's carry-over of the identified support. For instance, Nikki offered the recommendation "Continue to encourage pretend play" within the opportunities for practice section of the document (home visit session note). Pretend play was an activity that was enacted during that home visit as evidenced on the session note. The intervention was described as a "play food activity"; however, an observation from the documents revealed that this pretend play suggestion provided little guidance for the family's execution of the activity during non-provider led hours. Documents also indicated measures to prevent the child from fleeing the play interactions, which indicated that the child had a propensity to retreat during their exchanges. Nikki offered the physical positioning support to the family, which included, "While play[ing], sit so that you block the exit from the play area to help [the child] attend".

Engaging with the family. Through observation, document analysis, and an interview with the participant, family engagement produced several methods of interaction. Most notably, discussion and play interaction appeared to represent the data collected. Discussion appeared most frequently in the interview data. Nikki described that often "if we couldn't follow through (referring to an opportunity for intervention) we'd at least talk about it. And they were to practice and if we needed to come up with, like, if it failed, what could we do to make it better next time?" Within the observations, discussion also served as a predominate means for Nikki's engagement with the family. The observation conducted revealed that the session heavily involved the provider and child interacting through play with puzzles and shapes. Biancah joined the session after returning from work (45 minutes into the session), she immediately joined the play in a triangulated positioning with Nikki. Within the interactions, Biancah observed and reflected Nikki's models of support for Cole and offered insights into the exchanges.

It appeared as though, through the observations that Biancah took an active role within the intervention process whereas Donna and Chris appeared to be less actively involved within the session. On one occasion during the observed home visit, Nikki had asked the child to throw something away. She encouraged Chris to direct the task, encouraging his active participation in the direction provided and the child's follow through.

Responding to the child's needs. Nikki appeared to engage an informed position in her recognition of child needs. She reported actively reading and seeking knowledge to gain a deeper understanding into the experience for individuals diagnosed with ASD. She reported using the information gained as a means to share with families the underlying processes that may influence their child's behaviors. Evidence of Nikki's ability to respond to the child's need was also present in the documentation and observation data. The responsiveness was evidenced through the child's physical as well as emotional needs. Nikki reported recognizing that the child was upset due to overstimulation and offered "deep pressure" (a sensory technique) as a means to calm the child with reported success. Additionally, during the observation, the child made a request for cucumbers and Nikki asked the Chris to provide Cole with the cucumbers in order to recognize Cole's verbal request. It appears that as a support to the child in his ability to develop skills, Nikki took an active role to respond to the child's needs evidenced within each of the data sources.

Responding to the family needs. Responding to family needs were identified in interview and observation data, but not within the documented home visit session notes. Recognition of family needs encompassed the provider's response to family concerns and or preferences within the service delivery. The responsiveness toward the family appeared most notably in Nikki's ability to extend understanding and compassion toward grandma in her role within the family. For instance, Donna had expressed that she was feeling sad about EI (Part C) services coming to a close and the child's transition into the Part B program for preschool services. Nikki extended words of comfort and compassion in response to Donna's concerns. Additionally in the interview, Nikki mentioned the delicate dual-role that grandma plays within the family, as caretaker and grandma. In the interview, Nikki stated, "…it's harder when people are living together in the same household. To be able to turn off that grandma mode and help be the parent mode. It is very hard." As evidenced through the observation and interview data, Nikki appeared to approach her service delivery from a compassionate standpoint. Her use of relationship building skills, such as active listening, were apparent within the observation and indicated throughout the interview.

Chloe. The ways in which Chloe supported the family of the toddler with ASD revealed three overall themes and two subthemes within the data set identified as (a) enhancing child skills, (b) engaging with the family, and (c) trial and error. Figure 7 expresses the occurrences of the themes within the data sets.

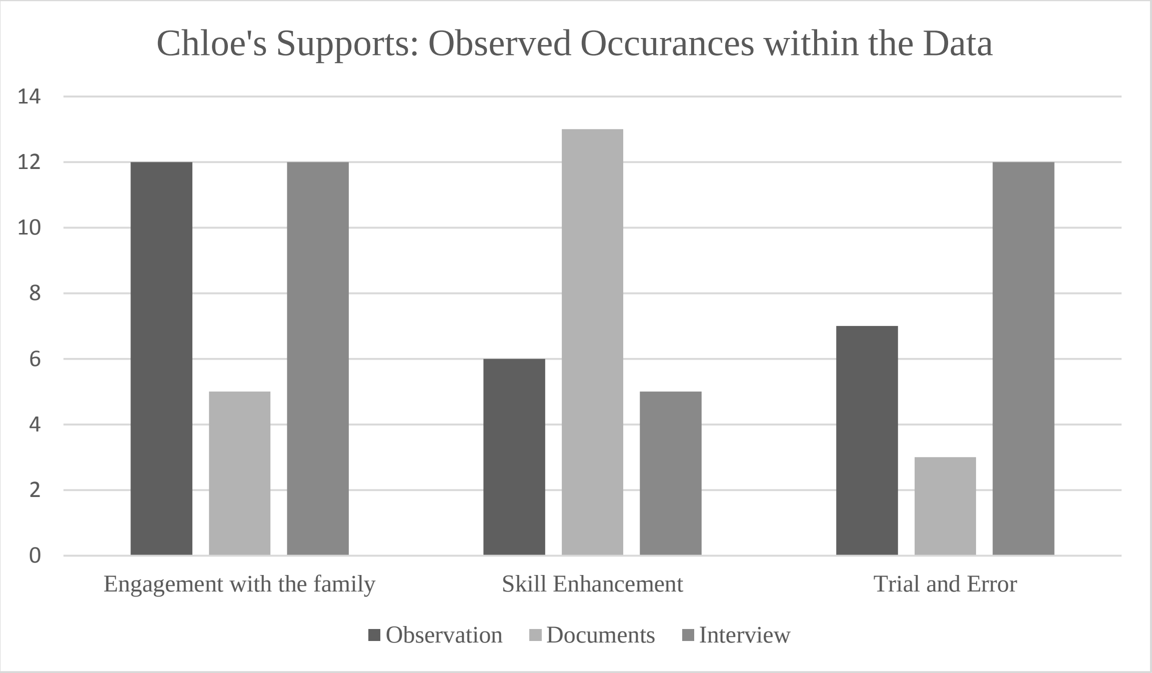

Figure 7. Chloe’s supports: Observed occurrences within the data. This figure represents the observed occurrences of supports utilized through each data collection set by Chloe.

***Engagement with the family*.** Family engagement appeared within each of the data sets through several means. Chloe was observed providing a high level of coaching support to the family during the observed visit. For instance, within the observed session Chloe predominately utilized triangulation, positioning herself as a coach to the interactions that happened directly between the child and family members. Chloe appeared to respond to family suggestions, shifting her focus to allow for recognition of the family statements. For instance, during the observed visit, grandma advised that the child had been drinking from a different cup than the one they had been using during the session. Chloe immediately asked for the cup and the session continued with the traditionally used cup. Additionally Chloe used questions in order to engage the family. Within the interview data, Chloe reported an event in which a parent (not in this particular case) had wanted to do the dishes while she was on the home visit. When asked how she engaged this parent, she responded "I mean, I started asking her questions and saying well, what about this? And what about that? And can you help with this? At least getting her to stay in the room and participate a little bit."

While lack of participation was not observed during the home visit session in this case study observation, Chloe frequently questioned the family which allowed for maintained engagement. For instance, Chloe questioned if the family had observed a hand preference in their work with using utensils, which allowed the family to ponder and conclude to use the alternative hand. Questioning also took the form of direct participation from family members. For example, during a swinging activity Chloe asked, "I wonder if Dad wants to give this a try" to encourage dad's participation within the activity. Despite the wide support for engagement within the observation and interview data, document analysis included much less occurrences of engagement.

Engagement within the data reflected the provider and family member doing something together with the child. For example, occurrences in the documented home visit sessions between mom, the provider and child appeared to serve a play function such as, "[w]e played in the waiting room or [w]e also played with some playdoh." Additionally, during the interview

Chloe indicated that the participation observed was typical for Donna and Biancah; however, she had not worked directly with Chris prior to that visit. The documents also supported this statement. Chloe reported that between the observation and interview (approximately one month), that Chris had been more present and participatory within the home visit sessions.

***Enhancing Child Skills*.** Child skill enhancement was identified as a primary means of Chloe's support to the family. Demonstration, suggestion, and interaction were used as the primary means for supporting the child skills. Data within this theme showed inconsistency between data sets. For example, data from the documents presented as skill-based reports for the majority of the session notes. Support gathered from this source showed a high use of support for specific skills such as using utensils, drinking from a cup, and dressing skills. The documents indicated a heavy child-focused approach to reporting the session. Document data included reports of the session including, "[the child] has still been using his fingers to eat, [h]e took his pants off, and he did turn his spoon upside down." Strategies provided to the family for carryover within the documents indicated a slightly vague support for intervention such as, "keep working with the spoon, practice with an open cup, and work with playing with toys in different ways."

During the observation however, Chloe primarily supported the family in enhancing the child skills through demonstration and suggestion. The child skill enhancing support was observed to occur through Chloe's engagement with the family. Support gathered from this source showed a high use of support for specific skills such as using utensils, drinking from a cup, dressing, and play skills. For instance, while dad attempted to assist the child in using a spoon, Chloe indicated that by repositioning the spoon the child would refine his grasp. Through the analysis of the data, play was noted in the observation to be less specific with little guidance in the area of child skills enhancement. In the observational data, a field note indicated by the researcher which noted, “Chloe was encouraging play, but not making specific suggestions within the play. Appeared to be more skill-based such as “can you do this?” In addition to utensils, drinking from a cup, dressing, and play skills, communication was also indicated within the interview data as a skill that was enhanced through Chloe’s support of the family.

Trial and error. An analysis of the data served to uncover trial and error as an overall theme describing Chloe’s support to the family. Chloe indicated that trial and error can be a “frustrating” part of supporting families. Chloe specified:

> And that’s what I always tell parents, we need to find out what, every child is different. Some things work with some kids, some things, ya know, other things. Just depends. And some things that work now, aren’t going to work in five months.

In addition to the frustration described, two subthemes developed within the analysis including sensory supports and the use of rewards.

Sensory supports. Chloe indicated that she regularly uses sensory supports for the family, and other families of children diagnosed with ASD.

> I said with the sensory stuff, I mean I do a lot, that’s one of those things I do a lot of. And um, just finding out the right things to help that child, I mean everybody’s. Every child is so different and finding the things that will help them.

Sensory supports noted within the review of the data were indicated to assist with calming the child and supporting the sensory integration necessary for tolerating different textures. Specifically within each of the data sets, swinging was predominately used as a means for calming. Swinging was observed by the researcher as allowing the child to lay in a blanket and two adults swinging him in the blanket. The child enjoyed the activity and became slightly upset when the activity was ended. Swinging was noted in each of the data sets. Additionally, the use of various textures such as playing with playdoh and rice were reported to be a support provided to the family.

Rewards. Rewards were uncovered as a predominant, and reportedly successful, trial and error based support for the family. The use of rewards were described to assist with the child's ability to try new foods. Chloe reported that "[w]e used rewards for trying bites, which worked really well for him." Chloe reported that she discovered that rewards were a motivating force for the child which assisted with much of his progress; however, she expressed that the rewards often become less motivating over time and often need to be shifted to reflect what the child finds motivating, which required the trial and error approach in order to be discovered.

Sarah. The findings exhibited three predominant ways in which Sarah offered support to the family including: (a) enhancing child skills, (b) flexible supports, and (c) engaging the family. The predominant support mechanism indicated within the data sets were enhancing child skills which were represented within three sub-categories. Figure 8 shows the identified occurrences of supports represented within the data sets.

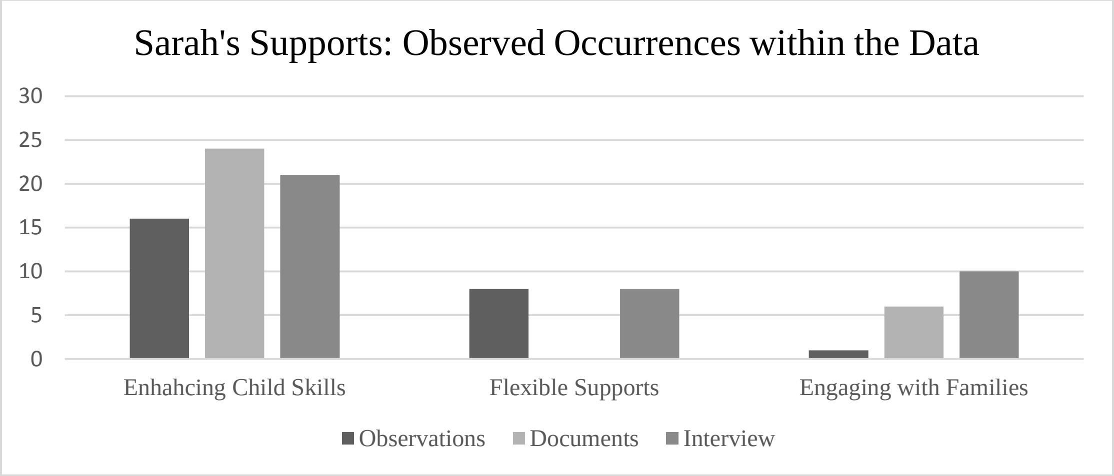

Figure 8. Sarah's supports: Observed occurrences within the data. This figure represents the observed occurrences of supports utilized through each data collection set by Sarah.

Enhancing child skills. The predominant focus of the supports observed within the data set included enhancing the child's skills. A skill-based focus was observed to occur in two main sub-categories of functional communication and play with purpose. Each of these categories were supported with a wealth of data from each of the data sets.

Functional communication. Sarah expressed a strong desire to increase the child's ability to communicate functionally in his environment. Specifically, the child's ability to request assistance, answer yes-and-no questions, and stimulate his imagination for communicative purposes was indicated in each of the data sets. Functional communication was explained, by Sarah, within the interview as deficit area of ASD. Additionally, Sarah expressed that the family had indicated this concern as well. For instance, in describing her feelings of working with an I/T diagnosed with an ASD Sarah indicated:

> It makes me feel like I have a lot more work to do than just teaching a child to say, 'cracker'. I need to teach a kid what a cracker is, where it is, how he needs to tell somebody that he wants it.

Sarah offered the direct support to the child, in addition to providing a model to the family. The provision of support to the functional communication of the child was indicated to occur within the documents and during the observed home visit session.

Play with purpose. Sarah described her support to the family as "play with purpose." She expressed that "Play is how kids learn, regardless of their age. Infant, toddler, preschool, school age, you learn through play. It varies, your play will vary, generally speaking, but that's how you learn." This statement was consistent across all data sets as Sarah offered supports to the family that focused her effort upon playing with the child, as a means to the enhancement of a skill. Sarah expressed that for I/Ts with ASDs difficulty with joint attention further pose challenges within social interactions. The observation within the data sets expressed that Sarah's supports attempted to build the child's capacity to play in social fashions such as turn-taking and back and forth activities.

Flexibility in the support. The supports afforded to the family were described by Sarah as "trial and error". She expressed that remaining flexible in the supports provided to the family allowed for the discovery of new techniques that enhanced the child's interactions. For example, flexibility was described as a support to the child's communication and motivation. Sarah described how allowing the child to lead the session and following his preferences, opportunities to join in the preferred activities arose. Additionally, this flexibility in her approach provided an opportunity to introduce challenges within preferred activities that extended learning opportunities for the child. For instance, Sarah shared:

> Trial and error… we used what he liked. So he's really into Paw Patrol. Paw Patrol, so we used that, I also used the fact that he liked shapes, and naming shapes so the first part of the session we would do what he liked so we would name shapes and then we would go back to play, and when I would see him struggling or getting a little frustrated, we would go back to the shapes. And then we would go back to play.

Sarah expressed that remaining flexible meant not going in with a lesson plan or a defined skill that she intended to work on with the child. She expressed that remaining flexible in her supports decreased any frustrations on the part of the family, the child, and herself within home visit sessions. For instance, Sarah described:

> You cannot go in there with a lesson plan. You have to go in there with a very open mind, you have to be flexible. You need to relinquish any control that you have and you need to gently integrate yourself into their home. And it's very hard to do. It takes time,

> this is not something that comes in one or two sessions. It might come 6 months later, it might come in 6 sessions, it's just being patient.

Family engagement. Through a review of the data sets, the theme of family engagement expressed a presence within the supports provided by Sarah to the family. Sarah's engagement was much more prevalent within the interview than the documents or observed home visit session. For instance, during the interview Sarah described grandma's participation within the home visit sessions. It is also noted that participation took several forms, such as providing a disciplinary presence for the child. For example, Sarah shared:

> Oh she was right there in the action. She would like, um, in the living room she would sit so he could not escape… and not that she would say no, but she when, when he would look to the corner like there's my route to go, she was sitting there so he couldn't go. And she would be like verbally prompting she, (noise) we're going to stay in here, this is where we're playing today.

This statement was followed by "at the beginning that's how we got him to play and now that he's made progress I don't think that she needed to be as involved, during the sessions." The lack of the family's active involvement was observed within the observed home visit session and through the analysis of the documents. Document data with regard to the family engagement was predominantly focused upon grandma's sharing of information and discussion of child progress within the home visit sessions. Within the documents and observed home visit session, each activity appeared to primarily occur between Sarah and the child.

Cross-Case Analysis: Supports

This section presents the findings of the cross-case analysis to answer the first research question, "In what ways are providers supporting families of I/Ts with ASDs in EI (Part C)?"

This cross-case, thematic analysis used a deductive approach in order to identify the supports provided by the EI (Part C) team of providers to a family of a toddler with an ASD in EI (Part C). Findings were presented as overall observed themes using the thick descriptions within the individual analysis (Miles & Huberman, 1994). Visual representations were used to organize and display the findings (Miles & Huberman, 1994). Figure 9 presented the cross-case use of providers' supports to the family within the case.

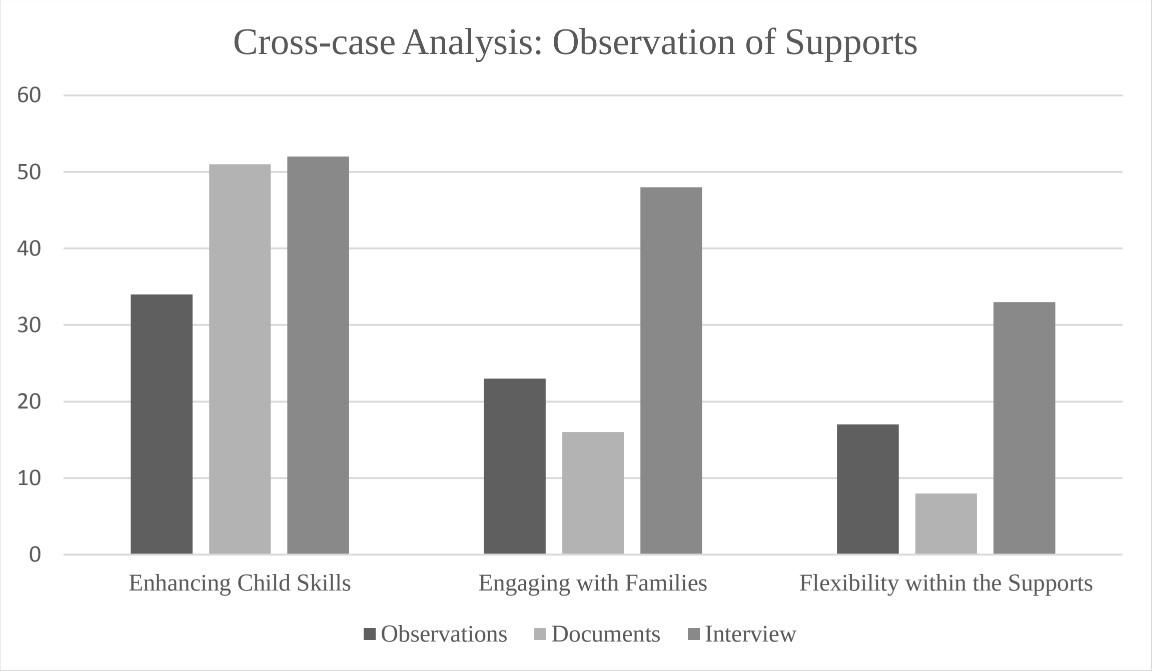

Figure 9. Cross-case analysis: Observed supports. This figure represents the occurrences of each support utilized by the participants across the data.

Enhancing Child Skills

Within each of the participants' observations, documents, and interview data, an apparent and predominant support provided to the family was indicated as a focus on enhancing child skills. Child skill enhancement included the specific focus on the child's ability to develop a solitary skill. For instance, observations included the development of child skills with regard to using utensils, completing puzzles, identifying pictures in a book, language and functional communication skills. Attentional skills were also indicated to be a focus of child skill enhancement through the observations such as activities to encourage turn-taking, back and forth activities, and general attention to the activity. Play skills, including pretend play and imagination appeared present as a main focus of supports offered to families.

Within the documents, a predominately skill-centered focus was also apparent. Session notes reflected the child's ability to perform specific skills within the context of the home visit sessions. The child's self-regulation skills included the ability to tolerate activities that involved social interaction. These self-regulatory skills were indicated to be of particular interest within the SLP and SI focus; whereas, the use of utensils and participation in dressing appeared to be the predominant focus within the OT's session notes. The ways in which the provider engaged with the family in the observed skill development was perceived to be an additional support to the family.

Engaging with Families

The second theme included the providers' engagement with the family. Each of the providers were observed to engage with the family through varied means; however, across all data sets for each of the providers, discussion was the primary means of engagement. Discussion included the questioning strategies used by each of the providers. For instance, at the conclusion of each observed home visit session, each of the providers engaged in a process of questioning the family for progression of the child's skills and engaging the families to share additional information. Questioning families appeared throughout the documents as a means to understanding the progress achieved in the child's skills over the previous week, along with the opportunity for the family to share stories with the provider. Documented observances of discussion appeared most frequently within the interviews with providers.

Additional observance within the data included elements of interaction occurring between the child, family, and provider in each of the three cases. For example, in each of the participant interviews, providers indicated that the family was involved within the home visit sessions. The family was involved in several ways, including their direct participation within an activity and actively watching the interactions between the provider and child. Through the observation data, it was noted that providers, on several occasions, encouraged the family's participation through various means. For instance, in one home visit, the provider actively stated "I wonder if dad wants to swing you," indirectly inviting the parent into the interaction. The overall observed interactions indicated, a more provider-child interaction during home visit sessions with discussion as the primary means for engagement of the family through observations, documents, and interview.

An element of teaching and educating parents was apparent in each of the provider interviews as a means of engaging with families during home visit sessions. For instance, during the observation, the OT utilized a coaching model, encouraging the parents to interact with the child while she guided the interactions using positive statements and suggestions to progress the child's skills. The teaching and education supports, however, were not apparent within the documents for each of the providers.

Flexibility Within the Supports

The third subcategory observed within the supports provided to the family included the providers' ability to remain flexible within their approach to supporting the family during the home visit sessions. Flexible supports were described and observed by the EI (Part C) team which included the ability to remain malleable, or open, in their approach to services within the family's situation. Within the observed data, flexibility encompassed three critical features. The initial feature, or subtheme, included a compassionate approach to working with families. Each of the providers indicated the challenges they observed, for families parenting an I/T on the autism spectrum. Each of the providers, including the SC, indicated that their approach to supports included an element of understanding in the face of unforeseen circumstances. For example, two providers described this understanding as an ability to accept when the family did not follow through with an identified activity or skill. One provider actively described supporting the family in these instances by encouraging them to focus on the most relevant suggestions provided by the team. This compassion for the family further extended to the child.

Each of the providers, in addition to the SC, described remaining flexible to support the child; thus, supporting the family. Flexibility of support was indicated in two sub-themes including: (a) child's regulatory processes and (b) functional teaching moments. Within the functional support for the child's regulatory processes, a recognition of the child's sensory needs were apparent. For example, during the home visit as described in each of the providers' documents (home visit session notes), the child was observed to become overstimulated during the session. Each of the providers indicated that they had provided the child with a sensory technique (i.e. deep pressure, swinging). Sensory supports were observed in one visit, within three documents, and indicated within each of the interviews with the providers. Functional teaching moments were described as the provider utilizing the naturally occurring moments to shift focus in response to the needs of the child. For example, the child during an observed home visit session expressed hunger, upon which the provider requested that the family provide the desired item.

Within the theme of flexibility, a final subtheme indicated the providers' use of trial and error for the supports provided to the child and family. The use of trial and error supports were described as a recognition for the variance in child and family preferences within each of the provider interviews. Providers described this approach as learning about the child, discovering their strengths, and identifying the family preferences. Each of the providers described that trial and error often created a source of frustration within the work. The providers described that they were required to learn about the individual child and discover what works. Providers expressed that frustration occurred when having to accept that preferences eventually satiated, thus moving on to identify the next preference.

Supports to the Family Routines

This section presented the data collected to answer the second research question, "How are families of I/Ts with ASDs supported in their daily routines through EI (Part C) home visit sessions?" This section reports the findings of the family's identified routines, satisfaction with, and provider accommodations to those routines. Additionally, findings of each individual providers' identified family routines, satisfaction with, and accommodations within those routines were presented. The multiple perspectives provided the opportunity for an overall cross-case analysis, which is presented following the individual case presentations. The findings were indicative of the observed, documented, and described EI (Part C) support of the family routines for a family of a toddler diagnosed with ASD.

Family Reported Routines

The family identified their main family routines as: (a) waking up, (b) eating, (c) getting dressed, (d) diapering, (e) playing, (f) reading bedtime stories, and (g) going to bed. For each of the identified routines, the family described the overall satisfaction with and provider accomodations given to the support of the routine. The family's identified routines and overall concerns within the routines are displayed in Figure 10.

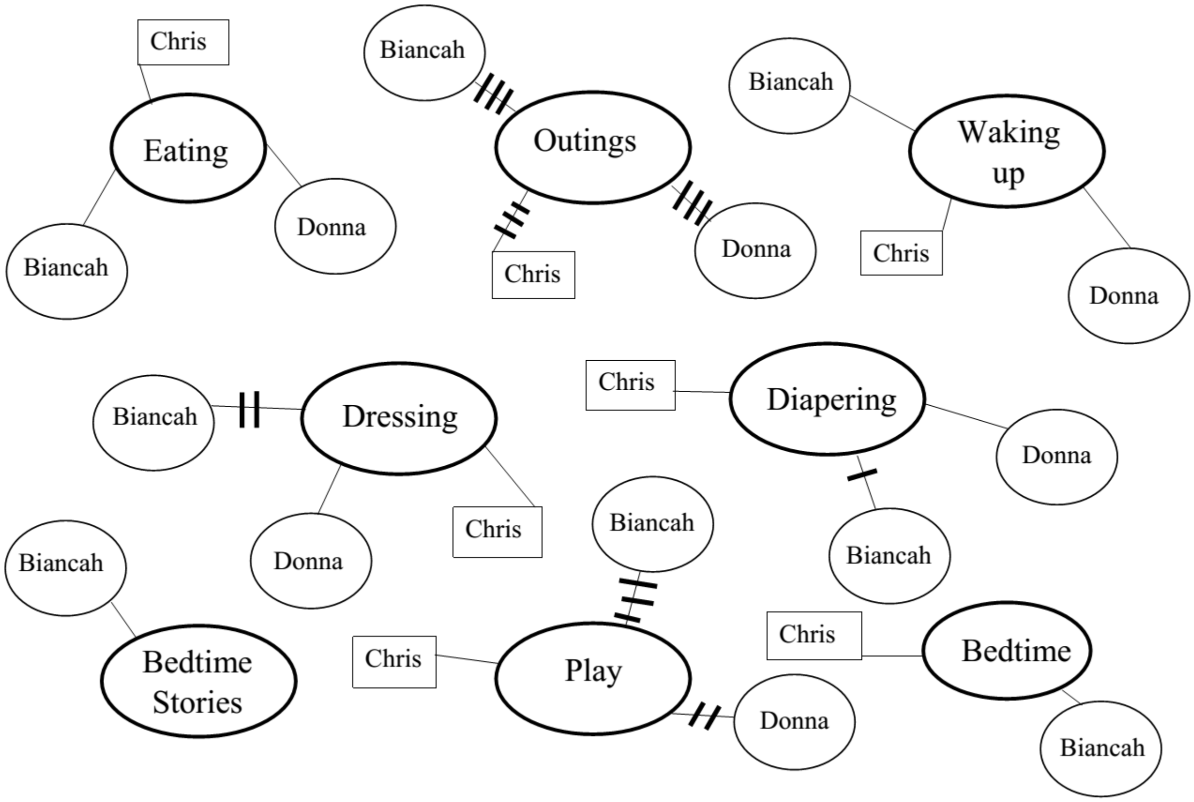

Figure 10. Family identified routines and concerns. This figure includes each family members' reported concerns within their routines. One line through represented slight concern, two lines through indicated moderate concern, and three lines through indicated significant concern.

Outings. Outings were identified as the major challenge to the family, represented by each of the family members. The family expressed difficulty with assuring that Cole was paying attention to where they were when out in the community. Biancah expressed that Cole often requires "24-7, eyes on him" when in public places. Biancah expressed that, "he's not like those kids, ya know, where they'll stop and look if their parents are around, he just keeps going." The family expressed that he will see something that intrigues him and wander away without awareness of a family member. Donna expressed that she will not take Cole out into the community by herself due to the fear that he will wander away. The family indicated that Cole was very well-behaved while sitting in the resturaunts; however, there is a persistent fear that is associated with outings and Cole's safety.

Provider accommodations: Outings. Within the identified family routine of outings, the family expressed that there have not been any instances of support for this routine from the EI (Part C) providers to date.

Playing. The family routine of playing was also described as a concern area for two family members. Cole was described to prefer playing on his electronic tablet. The family expressed that due to this type of play, Cole has gained a great deal of academic knowledge. Electronic play was described as beneficial to Cole in his knowedge-base; yet, the family described concern due to his lack of social interaction while he engaged in the play. The family's expressed concern involved Cole's desire to be alone and disconnected from play interaction with others. Mom described Cole's disconnection as a *self-driven* personality:

> He doesn't really allow us to engage with… I mean, sometimes. But usually he, I mean I would say, he more prefers to play alone. Especially if he's lining stuff up or something like that. If I help him, he'll push my hand away.

The family expressed that the majority of interactions with Cole during play were intstrumental in nature. Instrumental interactions are described as as a means to an end or an interaction for a specific outcome (Gutsetin, 2009). For instance, the family would draw a shape and ask Cole to name the shape. The family reported that dynamic encounters, or interactions that involved Cole's participation in back and forth unstructured play, were infrequent (Gutstein, 2009).

Provider accommodations: Playing. The family described providers' various methods used to accommodate the routine of play. For instance, the family described Cole's initial resistance to interaction. An expressed level of requirement was used as a support to this routine, meaning that the providers encouraged the family to require Cole's participation. Additionally, the family described the providers' use of activities that Cole enjoyed as a means to increase his willingness to engage in the playing routines. Observed measures of support to the family routine of playing included specific skill behaviors such as “pretend play, naming things during play”, and attention to play.

Eating/mealtime. The family reported that eating and mealtime were the most significantly improved routines within their home. The family described that prior to EI (Part C) services, Cole would not eat anything. Now, he is eating a wide variety of foods and the family, together, expressed satisfaction within the routine. Donna reported:

> If he’s hungry he’ll take me and he’ll take me to the frigerator and he’ll take us and put our hand right on the handle and he’s getting real good. I’ll say , do you want some yogurt, no, do you want some waffles, no, so yeah, his eating, unless he goes out to eat with us, he’s like more of a… grazer.

The family indicated that because he’s eating more foods, they are not necessarily concerned with the routine of eating at the present time.

Provider accommodations: Eating/mealtime. The family reported the most frequent accomodations to the eating and mealtime routines of the family. Two identified categories of support were identified for eating/mealtime routines including: (a) the physical act of eating and (b) communicating for preference. The family described the initial stages of support to this routine included the use of rewards for Cole’s physical act of eating new foods. The family reported blowing bubbles and overexaggerated cheering for each bite during eating/mealtime. Additionally, the family described the use of sensory and texture play strategies to increase Cole’s tolerance of varied textures. The family described the use of arts and crafts that required Cole to touch glue, cotton balls, and large amounts of rice.

Diapering and dressing. Similar to the eating and mealtime routines, the family reported that Cole has shown improvement in the routines of diapering and dressing. Diapering and dressing were indicated to have improved over the year and a half of EI (Part C) service delivery; however, concerns with regard to his ability to attend to the routine persist. For example, Biancah described:

> He's gotten a lot better, especially with the diaper changes ugh, I used to, it was literally like a workout trying to change his diaper, especially if he went number two, trying to wipe him and keep him on my lap, and keep him still so it didn't get everywhere else, like it was a struggle.

While the family as a whole reported progress with the routines of diapering and dressing, elements of each were indicated by Biancah to continue to harbor this family routine. Elements of difficulty included getting Cole to participate in the dressing and listening when he was called to change his clothes or diaper.

Provider accommodations: Diapering and dressing. The family described a main overall support to the routines of diapering and dressing, requiring Cole's participation within the interaction. For instance, having him pull up his pants or having him push his arms through the sleeves during the enactment of the routine. Donna expressed that she had difficulty requiring Cole's participation in dressing because she never required her own children to dress themselves at Cole's age.

Going to bed and reading bedtime stories. The family identified going to bed and reading bedtime stories as an area that provides connection and stability to their relationship with Cole. More specifically, Biancah and Chris viewed the bedtime routine as their opportunity for connection with their child. The family expressed that Cole enjoys reading books together and has memorized several that he reads to the family. Biancah reportedly sleeps with Cole, which she described as a time that she enjoys and values with him. She expressed that she does so for two main reasons: (a) so that Cole will fall asleep, and (b) so that they have their time to connect and be physically close. Cole will often play with Biancah's hair at night to assist him in falling asleep. Biancah expressed that overall, the routine was one that she ultimately enjoyed and while she may occasionally become frustrated over not being able to get anything done at night, she and Cole continue to sleep together.

Provider accommodations: Going to bed and reading bedtime stories. The family indicated that one provider assisted in their bedtime routine following Biancah's expressed frustration in a home visit session. Within the family routine of going to bed, suggestions were discussed which provided alternatives to the family within this routine. For instance, the provider suggested teaching Cole to play with his own hair at bedtime for comfort.

Waking up in the morning. The family described the family routine of waking up as a pleasant time for their family. They expressed that generally Cole wakes up happy and enjoys coming down stairs. Occasionally, if Cole sleeps later than everyone he will wait by the gate. Donna described that he does not yet call out for anyone during this time; however, this routine was not indiciated as a concern for the family.

Provider accommodations: Waking up in the morning. Within the identified family routine of waking up in the morning, the family expressed that there have not been any instances of support for this routine from the EI (Part C) providers to date.

Nikki's Support for the Family's Daily Routines

Nikki reported that the main routines of the family during the interview, which included: (a) eating, (b) night time routine, (c) bath time, (d) play, and (e) getting ready to leave the home.

Nikki's identification of family routines. Within the identification of need within the routines of the family as reported by Nikki, two main themes were identified throughout the interview including: (a) uncertainty of family routines and (b) situational identification of routines. First, it appeared that overall Nikki was uncertain of the family routines. This uncertainty was evidenced by each response containing, "I think" (or) "I don't think" prior to the description of the routines. For example, when asked "How would you describe that routine of eating?" Nikki responded:

> For the most part, I don't think that they utilize the sit down at the table as a family meal because everybody is on a variety of schedules.

An additional finding regarding the needs within the family routines included the providers' use of situational identification of family needs within the routines. For example, Nikki indicated that following a home visit session with the family, the family needed to leave the home in order to go to the local store. The child was resistant which reportedly caused the family stress, and the identified need to accommodate the family arose due to the situational observation of the concern.

Nikki's accommodations for the family's routines. Nikki described various accommodations provided to the family routines. Three major findings related to accommodations were uncovered through the data sets including: (a) discussion and/or suggestion, (b) instruction, and (c) internal conflicts with state-level policy. The delivery of services was indicated through each of the three data sources to include discussion. Specifically, when the occurrence and the routine was not happening during the home visit session, the provider described her approach, which included a discussion of the identified issue, providing suggestions to the family, and discussing the family's progress at the following session.

An additional finding was uncovered in the interview. The provider described feelings of disagreement with the state policy to utilize multiple spaces within the family's home as a means to provide intervention (i.e. bathrooms, kitchen, bedrooms, etc.). The provider described her concerns as a possible feeling of intrusion for some families. While the provider described several occasions where she has utilized multiple contexts with families, she expressed that not all families are comfortable with having professionals in multiple rooms within their homes. Therefore, she described offering to assist with multiple routines; however, if the family does not invite or follow through with the invitation, she does not *push the issue*. For instance she described,

> This is their child, and their home. I'm a visitor to that house and even though I could say I will do this, if they don't want to do it, I never want a family to say, I'm ending services because she pushed me to do things all the time that I didn't want to do.

The overall findings with regard to the provider's identification of routines, indicated concerns of the family and accommodations provided to the family uncovered a contextual or situational approach to the direct support to family routines. Additionally, accommodations were provided through a discussion of strategies that the family would enact and trouble-shoot at the following home visit. Direct instruction with the child was also found to be a vehicle for accommodating the family, which occurred during the home visit sessions primarily in the living room and kitchen as indicated throughout the data sets. The family's participation appeared to be varied between an active and observational positioning. Figure 11 summarized Nikki's identification of the family routines, identification of family needs within the routines, and accommodations provided to the family within the routines.

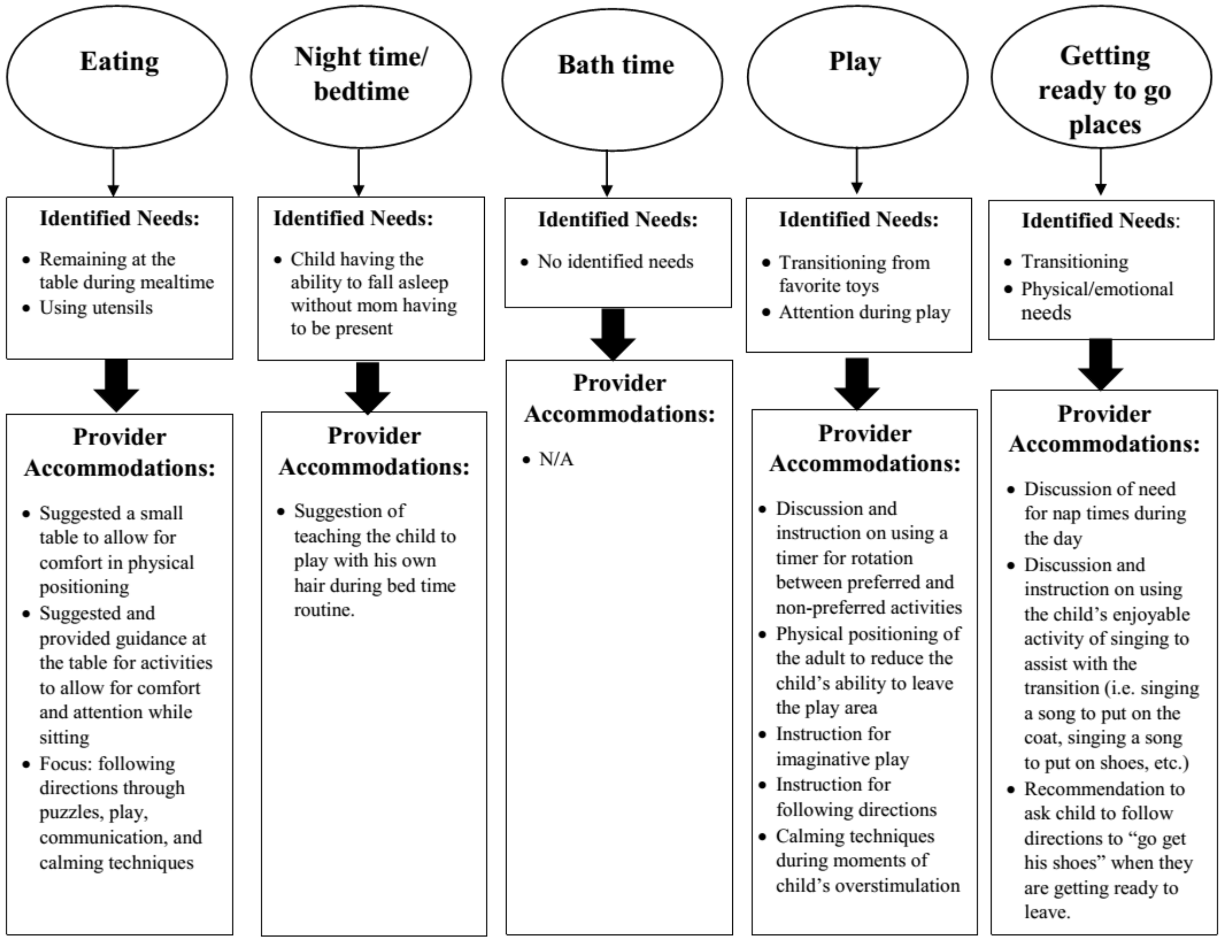

Figure 11. Nikki's report of family routines, needs, and accommodation provision.

Chloe's Support for the Family's Daily Routines

During the interview data collection, Chloe reported the main routines of the family which included, (a) daycare, (b) play, (c) eating and mealtime, (d) naptime/bedtime, and (e) dressing.

Chloe's identification of the family routines. Overall, findings of Chloe's identification of the family routines indicated two overall themes including: (a) discipline skill-specific focus of family routines and (b) uncertainty of family routines. The identified finding of a discipline skill-specific focus included the approach Chloe engaged in describing the family routines. For instance, when asked to describe what the routine of mealtime looked like for the family, Chloe expressed, “That’s something that we’re still working on, using his utensils, because he still prefers to use his fingers.” Similarly, with the routine of dressing, Chloe expressed:

> That goes along with dressing too, we’re still working on dressing. Although he is getting better at that! He pulled up his pants the other day! And he helped take off his shirt and put it back on, which was amazing. That was like the first time, he didn’t uh, didn’t throw a fit.

Chloe described an overall unsureness with regard to how the naptime and bedtime routines were enacted within the household; however, expressed that the family was satisfied with the family’s daycare situation of grandma taking care of the child. In each of the opportunities to report on how the routines were enacted, the routine was not described, as much as the skills that the child had acquired or needed to acquire within those routines. Additionally, a great deal of unsureness was indicated by the participant.

Chloe’s accommodations for the family’s routines. Overall, the findings of Chloe’s accommodations supporting the family routines included two overall themes: (a) coaching supports and (b) functional skill-focused accommodations. Overall, Chloe’s interactions observed during the home visit session and through the interview reflected a coaching model of support placing Chloe as a guide to the interactions that were occurring between the family members and child. The researcher noted the triangulated approach to service delivery in the field notes during the observation which included:

> The majority of the visit consisted of triangulated positioning among the provider, family, and child. Coaching supports were used to assist the family in practicing the skills, and

guidance was provided to assist the family in techniques that enhanced the interaction between the family member and child.

Triangulation was noted predominately during the family routine of eating. Support for the family routine appeared to reflect the functional obtainment of skills in order to enhance the child's ability to participate appropriately through the use of utensils. The use of eating and drinking utensils was observed as a main focus of the provider's home visit sessions through each data set. Accommodations were provided as suggestions and questions for the family in assisting Cole to use the utensils during mealtime. Chloe utilized a coaching approach with the family by suggesting alternative methods, positioning, and utensils to assist with the child's ability to eat independently.

Through the functional skill-focused accommodations, coaching was provided to the family with suggestions aimed to improve the child's ability to use the utensils, participate in dressing, and engage in playing routines. Skill-centered techniques for enhancing the skill set of the child's functioning appeared to present heavily within throughout the data sets. The inclusion of Chloe's accommodations for the functional skill-enhancing techniques was most apparent, and described by Chloe within the routines of eating, dressing, and playing routines.

Chloe indicated that the majority of her time was spent with the family and child engaging in the routines of eating and dressing, with occasional play, in their respective contexts within the home. The respective contexts included the kitchen used for the routine of eating and the living room for the routine of playing. Chloe expressed that her encouragement for the family's continued practice of the skills, during non-intervention hours was a focus in her work. Figure 12 provides a visual depiction of Chloe's reported identified family routines, identified needs within those routines, and accommodations provided within those routines.

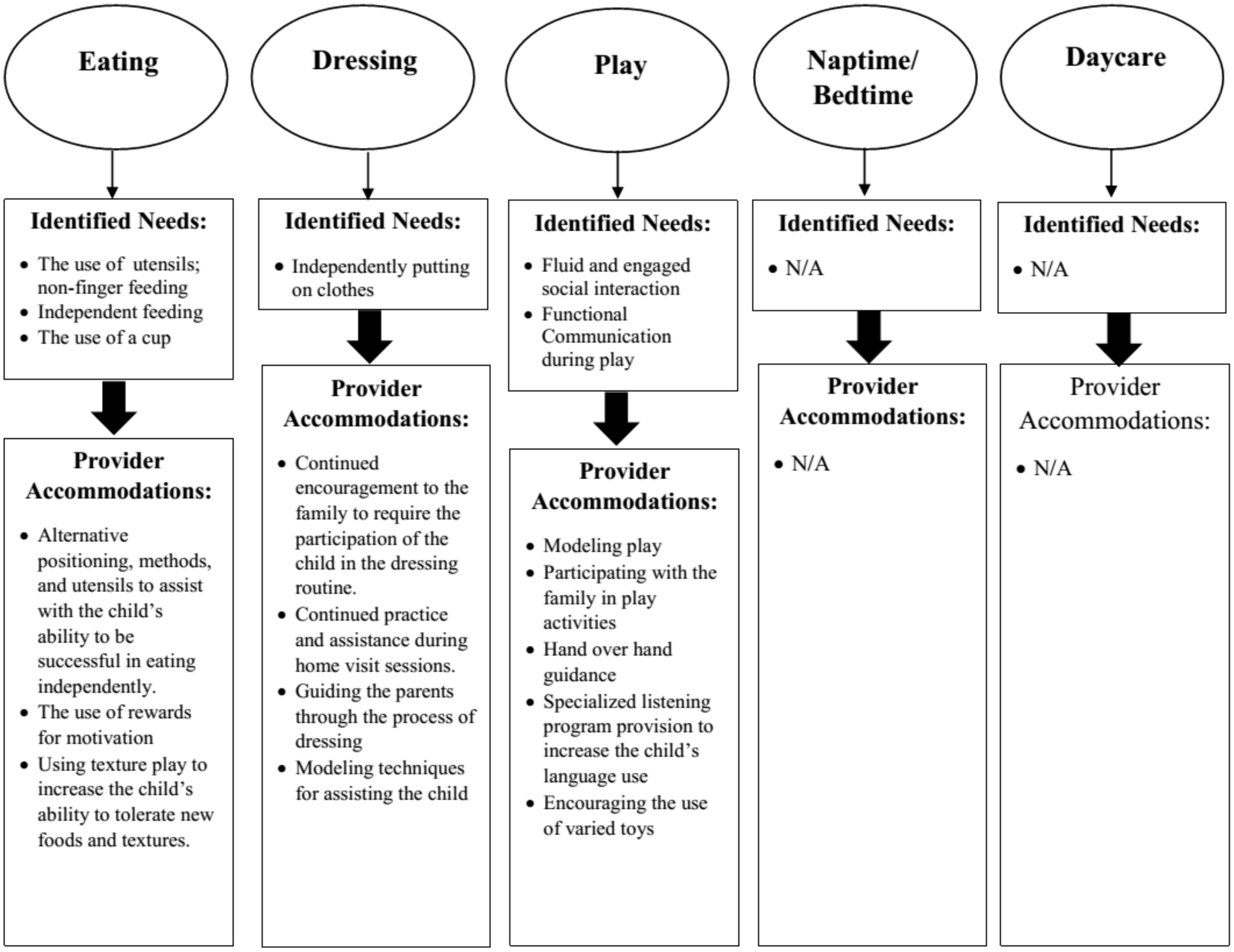

Figure 12. Chloe's report of family routines, needs, and accommodation provision.

Sarah's Support for the Family's Daily Routines

Sarah reported the main family routines during the interview as: (a) playing, (b) eating, (c) reading books, (d) watching television, and (e) bathing.

Sarah's identification of the family routines. Within the findings of Sarah's identification of the family's routines, two themes emerged from the analysis of the data including: (a) direct intervention-based identification and (b) discipline and function-specific identification. Sarah's identification of the family routines engaged a direct intervention-based approach to the observed contexts utilized within home visits throughout the data sets. This identification approach was true except for the bath time routine, which was described as unfamiliar to Sarah. She expressed that she believed that bath time was an enjoyable time for Cole and his family. As Sarah identified the routines of the family, the explanation included the overall functionality of the child within the routine as the context for discussion.

ASD-specific deficits, such as joint attention and social interaction, were identified within each description of the family routines. Additionally, discussion of ASD deficits prompted the recognition of additional routines. For example, watching television was indicated as a family routine. The identification of watching television prompted a discussion of the scripted use of communication that affected the child's functionality across the playing and eating (mealtime) routines. Additionally, Sarah expressed the family's recognition of Cole's limited functionality across skills used within the routines of play from a comparative standpoint. For example, the routine of play was identified through the comparative view of functionality between Cole and his typically developing similar-aged relative.

Sarah's accommodations within the routines. Within the identified findings, Sarah's accommodations to the family routines produced two themes including: (a) modeled supports and (b) functional skill-based accommodations. Sarah was observed through each of the data sets to include the use of modeled support in the accommodations provided to the family. The modeled supports were observed in the data to include the use of provider-child interactions that engaged the participation of the family from an observing or watching position. The use of modeled supports provided to the family included a functional skill-based accommodation to the child's communication abilities within the family's routines of eating and play. For example, Sarah encouraged the use of functional communication such as teaching Cole to reply yes-or-no to an offered item. Functional communication was described to occur naturally in the context of both eating/mealtimes and play routines. A detailed list of the strategies and accommodations that Sarah expressed within the interview, and utilized within the documents and observations appeared in Figure 13.

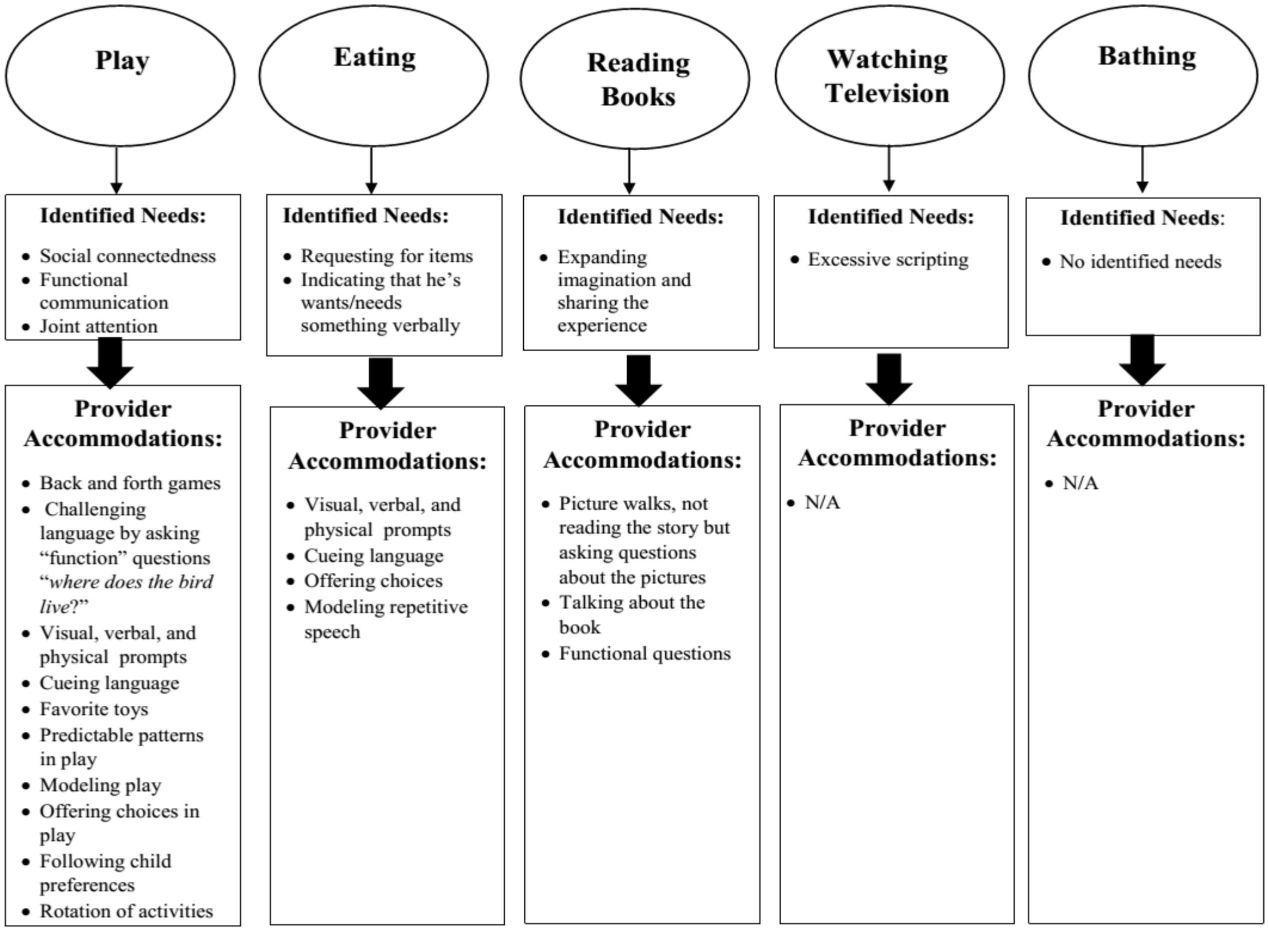

Figure 13. Sarah's report of family routines, needs, and accommodation provision.

Cross-Case Analysis: Accommodation and Support for Family Routines

The findings of this cross-case analysis served to answer the second research question "How are families of I/Ts with ASDs supported in their daily routines through EI (Part C) home visit sessions?" As a result of a deductive approach to the thematic analysis, three overall themes were observed including, (a) generally the providers identified family routines that were inclusive of a specific targeted child skill (b) providers were generally unfamiliar with family routines that did not identify a context aimed at a targeted child skill, (c) the providers largely accommodated the child's skills within the routines using varying models of support.

Generally the providers identified family routines that were inclusive of a specific targeted child skill included evidence supporting the overall knowledge of playing routines and eating/mealtime routines. The identification of routines reflected the predominant context, or setting, of the services that were delivered by the providers. Therefore, the providers were able to express a matched identification with the family's identified routines and concerns/needs in these areas. A finding of importance included none of the providers that identified outings as a family routine. A measure of discrepancy existed in the finding that outings produced the highest levels of concern for the family; however, outings were not identified to be supported through the EI (Part C) services. Figure 14 provides a visual depiction of the mismatch that occurred between the family's description of family routines of concern and providers occurrences of accommodation within routines.

The recognized mismatch between family concerns and provider accommodations served to provide evidence for the second theme identified, family routines that did not identify a context for targeted child's skills were often unfamiliar to the providers. More specifically, the family's highest expressed concern included the child's behavior of wandering away in public. Wandering away was not a targeted skill within the providers' overall observed IFSP goals or expressed concerns. Therefore, the family routine of outings were not identified by providers as a family routine or accommodated in service delivery. Additionally, each of the providers expressed a routine outside of the context or setting for their service delivery; however, in these cases providers expressed general unfamiliarity with the holistic and routine family functioning.

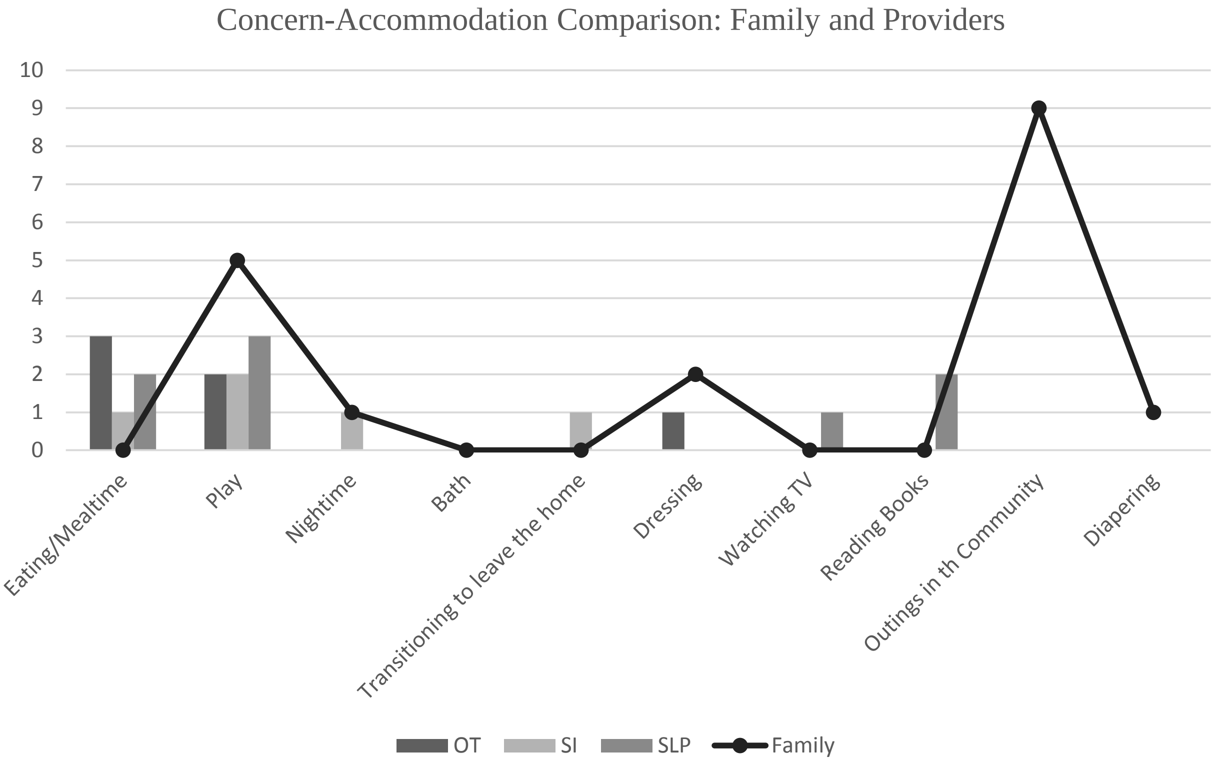

Figure 14. Concern-accommodation comparison: Family and providers. This figure represents a comparative view of family concerns and providers' accommodations.

A final theme indicated that providers largely accommodated the child's skills within the routines using varying models of support. Providers for example, engaged in various styles of support to the family in their accommodation of the family routines. Types of supports included one provider's coaching, another modeling provider-child interactions, and another discussion-suggestion supports. All providers used their supports for the purpose of progressing an identified child skill, which was consistent with a specific setting or context (i.e. play occurred in the living room, eating occurred in the kitchen). The utilization of family routines did not reflect a purposeful selection but more so a coinciding context that provided an opportunity for discrete skills to be targeted functionally.

Support and Influences: Providers’ use of Family Routines

This section will address the third research question, “How are EI (Part C) providers and families supported and influenced in their implementation of family-centered use of routines for I/Ts with ASDs?” Provider self-reports of education, preparation, training, and supports were used to evaluate the supports and influences present in the data. The individual providers’ case presentations provided in the beginning of this chapter were used to identify the overall themes related to support and influences within EI (Part C) service delivery. The themes were (a) lack of educational preparation, (b) supported pursuance of additional training, and (c) positive relationships with colleagues. Subthemes were observed within each of these categories discussed below.

Lack of Educational Preparation

The theme highlighting the lack of educational preparation was apparent, most notably, within each of the providers’ and SC’s undergraduate training. Table 5 showed the training experiences of each provider and their undergraduate experience within the topic content of ASD, specific ASD training for I/T populations, family-centered systems, and the EI (Part C) Program. One of the four professionals received EI (Part C) content within their undergraduate experience. The participant recalled “I actually had to write an IEP goal. It wasn’t a lot, there wasn’t a lot of training, but there was a section, maybe a semester on it. Where we worked on that.” One of four professionals received any mention of ASD and specific ASD in I/T populations. The participant described the education as a descriptive component, stating that the ASD training was “just what it (ASD) is. Describing it, best practices, you know like the ABA style.” Additionally, education on ASD in I/T populations was described by the participant as:

> just kind of like the blank stares and how they didn’t really attend to anything. Um, but it wasn’t like a whole semester on it or anything. Like a piece in a class. Probably like in my language disorders class it was mentioned.

Table 5

Provider Undergraduate Training and Preparation

Participant	ASDs	ASDs for I/Ts	Family-Centered Models	EI (Part C)
Nikki				*
Sarah	*	*		
Chloe				
Kai				

* Participant indicated exposure to the identified area

Additionally, the influence at the graduate level of education offered the participants an overall limited amount of support in the work with families of I/Ts with ASDs in EI (Part C) depicted in Table 6. For example, while there were a greater amount (3/4) participants that received content in ASDs, only one provider indicated specific training for I/T populations for ASDs. Two of four of the participants indicated that the education focused on a small overview of ASD. For example, Chloe shared, “We may have touched on autism, once, not even a whole class. Just a little blurb.” In terms of family-centered systems, several (2/4) participants described content within the educational program. Specifically, one provider described a family-centered education from a youth ministry perspective; however, not specific to EI (Part C). Nikki appeared to have received the greatest amount of training related to EI (Part C) service delivery for families of I/Ts with ASDs. She described her program model as:

> a shift towards, at that time they were talking about implementing like play-based evaluations versus doing the sit down direct testing. We even had a practicum where were worked on that.

While several providers described practicum experiences, the experiences were within clinical settings such as school, hospital, and professional clinics with the population of school-aged children. The practicum approach was not evident in any other of the disciplines, specific to EI (Part C). Additionally, Nikki had described working in EI (Part C) for ten years prior to her graduate work.

Table 6

Provider Graduate Training and Preparation

Participant	ASDs	ASDs for I/Ts	Family-Centered Models	EI (Part C)
Nikki	*	*	*	*
Sarah	*			
Chloe	*			
Kai			*	

* Participant indicated exposure to the identified area

Supported Pursuance of Additional Training

The second theme observed within the data related to provider supports included, supported pursuance of additional training. The observed agency and EI (Part C) sponsored training and support offered the most widely observed occurrences of exposure to training related to EI (Part C) for I/Ts with ASDs depicted in Table 7. For example, each of the providers received EI (Part C) training funded through the providers' agency. Three of four of the participants expressed receiving ASD specific training through the paid attendance to a large university conference specific to ASD, including I/T populations. Chloe had expressed wanting to attend; however, family obligations prevented her from attending. Additionally, Nikki expressed obtaining family-centered content within another conference funded through her agency. When asked what she has taken from the conferences, Nikki expressed a statement of reassurance stating that, "Sometimes I think it just more reinforces things that I've been doing with the kids." Each participant expressed that they were thankful for their agency providing the financial support to receive additional training. Sarah stated, "Yeah, I know. We're lucky." Sarah's expression suggested that paid training is not a common phenomenon for an EI (Part C) provider.

Positive Relationships With Colleagues

In addition to the financial support that was provided through the agency, positive relationships with colleagues offered a support through the agency. Each of the providers described finding support through their colleagues and supervisors within the agency. There were not weekly supervision meetings, coaching, or ongoing mentoring occurring within the organization; however, a sense of support was found to be described as, always having someone to consult or talk with when they needed assistance or ideas with the families they worked with. It appeared that through the agency's provision of training supports, providers were afforded opportunities to pursue their interests within EI (Part C) in addition to finding support in their work with families.

Table 7

Provider Agency or EI (Part C) Sponsored Training and Preparation

Participant	ASDs	ASDs for I/Ts	Family-Centered Models	EI (Part C)
Nikki	*	*	*	*
Sarah	*	*		*
Chloe				*
Kai	*	*		*

* Participant indicated training provided in the identified area

Providers shared that overall they did not pursue additional self-funded trainings (Table 8). Providers expressed that lack of self-funded training was due to the ability to access agency funding training. However, Kai expressed health related issues that had prevented him from seeking out further training. Nikki and Chloe had reportedly self-sought training. Nikki described her training as constant reading on topics related to ASD. She actively expressed seeking out information for deeper understanding of ASDs. Additionally, she revisited families that she had worked with in the past, in order to gain additional techniques to share with current families. She expressed reaching out to families as a family-centered approach to self-sought training.

Chloe had self-funded a training that certified her as a specialist for advancing the communication and language abilities of children on the autism spectrum. She expressed that she was very proud to offer the specialized service to her families and does so exclusively in EI (Part C) with families that she knows will be able to follow the strict protocol. Overall, the pursuance of self-funded trainings appears to be limited due to the intensive support offered by the agency, health issues, and family obligations.

Table 8

Provider Self-Sought and Individually Funded Training and Preparation

Participant	ASDs	ASDs for I/Ts	Family-Centered Models	EI (Part C)
Nikki	*		*	
Sarah				
Chloe	*			
Kai				

* Participant indicated self-sought training in the identified area

Summary of the Chapter

This chapter aimed to answer the research questions related to the types of support provided to the families of I/Ts diagnosed with ASDs in EI (Part C) home visit sessions. Findings indicated that overall, families are supported through the enhancement of child skills, family engagement, and flexible supports. This finding served to highlight the nature of the service delivery in the context of EI (Part C) for I/Ts with ASDs.

Within the family's routines, accommodations afforded to a family of toddler with ASD in EI (Part C) expressed a mismatch between the highest concerns of the family and provider support to the family routines. Mealtime and play appeared to be the most commonly utilized context for intervention within this study. While the family indicated that play was, in fact, an area that served as a concern, the family indicated that mealtime was not experienced as a challenging time. Observations of provider accommodations versus family concerns appeared to reflect the provider skills that were expressed to be commonly deficient in ASD, rather than supports to the child's participation within the family routine.

Overall, with regard to the educational preparation, providers appear to lack the preparation necessary to support families of I/Ts with ASDs based upon education alone. Several providers commented on strictly theoretical learning with little practical experience to perform the job with confidence. The agency involved in this study provided additional financial support and training to the staff. There was an indication, however, that paid training is not a common phenomenon which indicates that without direct financial support, providers are required to self-seek and fund their own progression and learning. Several providers expressed difficulty in attending trainings due to external constraints. The providers within this study indicated a strong network of colleagues dedicated to assisting each other and the families that they serve. Chapter 5 will discuss this study's findings to the larger literature base.

CHAPTER 5

DISCUSSION

This chapter presents a summary and discussion of this study's overall findings. This qualitative study explored the supports provided to families of I/Ts diagnosed with ASDs in EI (Part C) home visit sessions. More specifically, the purpose of this qualitative case study was to describe the EI (Part C) supports afforded to families of I/Ts with ASDs, namely, providers' influences and use of family routines within the context of EI (Part C) home-visit sessions. A comprehensive and contemporary EI (Part C) team, comprehensively serving an I/T with an ASD, participated in this study. Participants included three EI (Part C) providers, a SC, and three family members of a toddler with ASD ($N = 7$). A SI, SLP, and OT were observed during their regularly occurring home visit sessions ($n = 3$) in order to identify the supports and the use of routines. Routine documents generated by the providers were used as an additional data collection technique ($N=12$). Finally, an interview was conducted with each participant, using semi-structured interviews. Data were collected to answer the following questions of the case study:

1. In what ways are providers supporting families of I/Ts with ASDs in EI (Part C)?
2. How are families of I/Ts with ASDs supported in their daily routines through EI (Part C) home visit sessions?
3. How are EI (Part C) providers and families supported and influenced in their implementation of the family-centered use of routines for I/Ts with ASDs?

This chapter begins with a summary of the research findings. Following the summary of results, a discussion of the findings is presented through the theoretical propositions that were used to guide the research based upon the current literature within the field (Yin, 2014). Next, implications for future research and recommendations for the promotion of family-centered practices in EI (Part C) for I/Ts with ASDs are provided. The chapter concludes with a summary of the study.

Research Question 1: Supports for Families of I/Ts with ASDs

The first research question in this study examined, “In what ways are providers supporting families of I/Ts with ASDs in EI (Part C)?” This study utilized three sources of data in order to identify themes of support afforded to a family of the toddler with an ASD. The data sources provided direct (observation), indirect (home visit documents), and perceived (interview) supports in order to answer this identified research question. Overall, the research found that providers were supporting the family through three overall themes within the EI (Part C) home visit sessions.

Child Skill Enhancement

The most predominant way the providers supported the family was through enhancing the child’s skills. This theme included measures from the observations, documents, and interviews from each of the providers. This theme also included the providers’ propensity to place the child’s skills as the focus within the home visit sessions. For example, provider-focused child skills included using utensils, completing puzzles, identifying pictures in a book, language use, and functional communication skills. Attentional skills were also indicated to be a main focus of child skill enhancement. Attentional skills included the provider, and occasionally a family member, engaging the child in activities to encourage turn-taking, back and forth activities, and general attention to the activity. Play skills, including pretend play and imagination, were further child skills that were frequently supported by the providers in home visit sessions. While the skill development of the child is a goal of the EI (Part C) Program as a whole, the family’s versus the providers' ability to meet the needs of the child is the recommended practice within the program. Therefore, the provider is recommended to engage the family through a coaching model that supports the interactions between the child and family (DEC, 2014).

Family Engagement

In addition to the enhancement of child skills, *family engagement* appeared as a means of family support. The research study observed family engagement through additional subthemes including: (a) discussion, (b) family participation, and (c) teaching and educating. Elements of family engagement were observed within the three data sources and occurred primarily through the use of discussion with families.

Discussion. Discussion included providers' follow-up with families on the child's progress from the previous home visit session. Questioning techniques were also utilized by the providers to enhance the child's skills, along with sharing of information and stories. Providers used discussion as a means to identify progression with child skills.

Family participation. An additional subtheme of family engagement included family participation within the home visit session. Family participation was reported most frequently within the interviews. Home visit documents produced the lowest occurrences of family participation. Independent family member participation styles were observed.

Family independent participation styles. Varied participatory styles were observed across family members which included either: (a) watching (observation) participant or (b) active participant. The family utilized the interactions as a modeled actions of the providers for the carry-over of the target child skill areas throughout the week. However, one family member, mom, was involved with the sessions as a direct and active participant within the interactions that occurred between the child and provider. In these situations, mom practiced the skill-enhancement techniques alongside the provider during in the home visits. Additionally, within family engagement, providers expressed that teaching and educating families were a focus of their work.

Teaching and educating. Providers' use of teaching and educating parents was observed during the home visit sessions. The use of a teaching approach often encouraged the specific knowledge to progress child skills. However, teaching and educating were also used as a strategy for providers to show compassion and understanding. For example, during an observed home visit the family expressed fear about Cole's soon transition from Part C to Part B, the preschool program. Nikki used teaching and educating to convey the transition as a process that was warm and non-anxiety provoking. This education afforded the family an expressed comfort surrounding the situation. Each of the providers expressed the use of teaching and educating parents within their interviews. However, there was no direct evidence of teaching or educating within the reviewed documents.

Flexibility Within Service Delivery

The third overall theme within the overall supports provided to the family included the providers' flexibility within the service delivery. This included the providers' recognition of child's needs within the context of the home visit sessions.

Sensory supports. For instance, sensory overstimulation was described in each of the provider interviews to include a specific need for I/Ts with ASDs. Observations and document analysis also identified the providers' support to the family by recognizing and supporting the child's sensory overstimulation. The providers offered supports to the family through calming techniques for sensory overstimulation. The way in which the providers delivered this support identified another subtheme, trial and error.

Trial and error. Providers described the process of trial and error, as “figuring out what works” (Chloe, Interview). Each of the providers described that the process of trial and error may become a source of frustration within their work. Overall, this frustration was described as a need to continually re-evaluate and find meaningful and enjoyable activities. Providers indicated that, for Cole and other I/Ts with ASDs, the trial and error process can be frequent.

Summary of Research Question 1: Supports for Families of I/Ts With ASDs

The EI (Part C) support for the family included a discussion-based means for the enhancement of child skills during the home-visit sessions. Providers additionally utilized flexibility within their supports that were delivered to the child and family. The direct family engagement for this case was varied. In order to answer the initial research question within this study, the findings supported that a discussion-based, child skill-enhancing, and flexible support appeared most frequently within the data sets.

Research Question 2: Support for the Family Routines

The second question served an exploratory function which aimed to describe, “How are families of I/Ts with ASDs supported in their daily routines through EI (Part C) home visit sessions?” The cross-case findings identified that, overall, provider perceptions of family routines and concerns were inconsistent. Three themes emerged from the data including: (a) identified family routines that were inclusive of a specific targeted child skill (b) general unfamiliarity with family routines that did not identify a context aimed at a targeted child skill, and (c) accommodated child’s skills within the routines, using varying models of support.

Skill-Identified Routines

Overall, providers identified family routines that were inclusive of a specific targeted child skill. More specifically, the skill sets that the providers typically addressed in home visit sessions promoted the providers' identification of the family routines inclusive of those skills. The cross-case findings identified that, overall, provider perceptions of family routines and concerns were varied with that of the family's.

Provider Unfamiliarity With Family Routines

Findings appeared to indicate that, overall, providers were unfamiliar with the family routine functioning and daily activities that occurred outside of the home visit session service delivery times.

Accommodated Skills Within Routines

The use of routines appeared to be secondary to the providers' focus on child skill enhancement. Therefore, it was identified that the use of family routines was an unplanned context for the planned enhancement of the focus skill. The identified skill-focus appeared to determine the overall use and recognition of the family routines within the home visit sessions. With regard to the overall family concerns, the providers each expressed varied responses indicating that the concerns discussed may have arisen from the skill or discipline-specific service provision. Overall the accommodations to the family routines occurred primarily in two contexts, play and eating routines. The lack of depth in family routines appeared to have matched the identified skill-focused concerns indicated by the providers, however, did not appear to reflect the family's identified greatest concern, outings.

Summary of Research Question 2: Supports for Family Routines

The findings suggested that targeted child skills were the link to the providers' awareness and identification of family routines. The family routines served as a functional context for practicing child skills. The providers were generally unfamiliar with routines used outside of the context of the home visit sessions.

Overall, supports within the routines of the family appeared to engage the skill-focused approach indicated within the general supports category including the use of discussion, modeling, suggestion, while the family assumed their identified role of observer-participant or active participant. The providers offered discipline specific guidance for the child from which to enhance an identified skill. The family members' descriptions of the home visit sessions also supported this finding. Family perceptions of service delivery indicated the provider as the child's teacher who enacted supports for the identified skill within the context that the skill functionally occurred.

Research Questions 3: Support for Providers in Using Family Routines

This section will address the third research question, "How are EI (Part C) providers and families supported and influenced in their implementation of family-centered use of routines for I/Ts with ASDs?" The cross-case analysis of the supports for providers in utilizing the family routines showed that, generally, there was a lack of educational curricular experiences that provided exposure to the EI (Part C) model or family-centered systems. The themes were identified as: (a) lack of educational preparation, (b) supported pursuance of additional training, and (c) positive relationships with colleagues.

Lack of Educational Preparation

The providers indicated that overall their undergraduate education provided a limited or non-existent exposure to EI (Part C) and family-centered models of service delivery. ASD training appeared to be slightly more prevalent; however, the providers expressed a theoretically-based exposure with little to no practical exposure to working with families of, and I/Ts, with ASDs. The providers described their work with I/Ts with ASDs as an on-the-job learning experience.

Each professional participant involved in the study had obtained a master’s degree. ASD in childhood was more prevalent in the providers’ graduate work; similar to the undergraduate experience there was little to no exposure in the population of I/Ts. Theoretical education on the topic of ASD was most indicated. Overall, the providers described on-the-job learning experience, which consisted of trial and error approaches.

Supported Pursuance of Additional Training

Additionally, a finding with regard to this specific study indicated that the providers were granted a supported pursuance of additional training. The providers expressed that the agency allotted financial support to attend trainings of interest along with agency sponsored trainings. Within the identified trainings, the providers received the majority of their training in ASD, ASD in I/T populations, and EI (Part C). ASD and ASD in I/T populations training were received primarily through the providers’ participation at a specific conference. The agency granted EI (Part C) training through the mandated EI (Part C) continuing education requirements. Family-centered systems training was less common as indicated by the providers. The providers each expressed their feelings of gratitude toward their agency for the financial provisions, which may have indicated that opportunities to attend paid trainings was not a typical phenomenon.

Positive Relationships With Colleagues

In addition to the financial support of the agency, the providers indicated a general comradery within the agency. Each of the providers expressed feeling supported in their practices; however, regular supervisions and mentoring were not an observed practice. The providers did, however, indicate feeling comfortable in contacting the supervisor with any issues or concerns that arose in their daily practices.

Summary of Research Question 3: Provider Supports

The providers gained their working knowledge of EI (Part C), family-centered models, and I/Ts with ASDs through on-the-job and trial and error learning. Overall, providers expressed a desire to gain knowledge that would enable them to assist families of I/Ts with ASDs in the child's development. The majority of provider supports were provided by the agency.

Discussion

Through the review of the literature, the complexity of family-centered systems became evident. Yin (2014) advocated for the use of theoretical propositions to generalize the findings of case study research to the larger literature base. The discussion of this study will utilize the identified, theoretically-based propositions to discuss and generalize the overall findings to the larger literature base.

Theoretical Proposition 1: Assets and Liabilities

Theoretical proposition number one stated "The provider (self), along with their educational preparation and training (supports), will reflect their home visitation style and use of family routines (strategies) in EI (Part C) sessions with families of I/Ts with ASDs (situations)." This discussion will include the identified assets and liabilities with regard to the self, supports, strategies, and situation observed within the context of this study. Additionally, the discussion will include the convergent, divergent, and consideration for additions to the observed literature base.

Provider self. An observance of the self is encouraged in the theory of transition (Anderson, Goodman, & Schlossberg, 2012). A potential asset or liability, the individual self serves to conceptualize the ability to move through potential transitional barriers (Seligman, 2002). Demographically, each of the providers had been practicing in EI (Part C) for ten years or greater, which indicated familiarity with the EI (Part C) system. The SC, however, had only been practicing in EI (Part C) for two years, which indicated less practical experience than the providers.

The provider participants and SC indicated a general sense of enjoyment in their work. Fleming, Sawyer, and Campbell (2011) described that providers' willingness to teach caregivers was primarily due to family characteristics such as the education level of parents, home environments, and caregiver expectations for EI services. Within this overall case, providers expressed a compassionate and understanding approach to service delivery for the family's situation. However, it was also identified that providers expressed the family's willingness to participate in services which may have determined the providers' compassionate and understanding approach (Fleming, Sawyer, & Campbell, 2011). Providers have been described to enact a judgment, or cognitive process, that may detract from the use of family-centered practice in their home visit sessions (Salisbury, Woods, & Copeland, 2010).

Each provider described a desire to educate and teach the family within the case; however, multiple approaches to teaching and educating the family were observed within the findings. Discussion and Suggestions appeared most frequently within the data sets. Overall, the predominant use of discussion occurred through the family's observing-role, versus active participation. Knoche, Kuhn, and Eum (2014) discovered a potential barrier to coaching practices, which included the family's inability to enact the providers' suggestions through discussion alone. The family in this study identified that they often became overwhelmed with the amount of providers' suggestions. This study's findings appeared to reflect the barriers of discussion-only approaches. The providers in this study approached the situation of family nonfollow through with compassion and understanding which served to maintain positive relationships among the team.

The providers expressed a desire to educate and teach families consistent with family-centered help-giving strategies (Dunst, 2010). Dunst, Trivette, and Hamby (2007) conducted a study which identified that families expressed a satisfaction with the supports and increase in self-efficacy when providers' used help-giving practices. The providers' use of family-centered, help-giving strategies within this study were further supported by the statements of satisfaction from the family in this study.

Chloe was observed to use a coaching process with the family during the home visit. Campbell (1997) described the process of coaching as a means to encourage active participation and collaboration with the family. The majority of Chloe's home visit reflected a triadic model of interaction. However, Chloe's documented home visit session notes presented a heavily direct teaching, child skill-enhancing approach. Salisbury, Cambray-Engstrom, and Woods (2012) observed a similar finding in a case study measuring providers' actual and reported use of coaching strategies in EI (Part C) home visit sessions. The authors found that overall providers did not give themselves "credit for the range of practices they actually employed" (p. 95). Within the authors' study, however, providers had been trained in fidelity for a two-year period prior to data collection. The observed provider supports within this study reflected a dissimilar viewpoint.

Provider supports. Caplan (1976) expressed that the utility of a support system assists the individual in (a) the mobilization of psychological resources, (b) emotional burden mastery, (c) provision for the material, financial, and cognitive guidance necessary to handle situations. The providers described the agency for which they worked as their predominant support system.

Additionally, the SC described the county agency as his main support for his work. The providers and SC expressed their support from these sources as consistent with Caplan’s (1976) description.

Psychological and emotional support. Psychological and emotional support was provided by the agency through open lines of communication and support. The providers expressed feeling supported when they reached out to their supervisor for guidance in challenging situations.

Material and financial resources. Material and financial resources provided by the agency included paid training attendance in order to enhance their work in the I/T EI (Part C) Program. A large number of trainings were sought out by the participants, which produced divergent findings to the larger literature base (Bruder et al., 2013). However, overall, the trainings that were sought out and funded through the agency, lacked a family-centered focus. Additionally, the numerous trainings reflected the one-time, lecture-driven workshops described by Snyder, Hemmeter, and McLaughlin (2011) as *norming* and *storming*. This generational classification was further supported by one provider indicating that the trainings simply reinforce the practices that she currently used. *Norming* and *Storming* were second and third generation trainings said to precede the period of *performing,* which capitalized on changing provider practices (Snyder, Hemmeter, & McLaughlin, 2011). Odom (2009) further encouraged the movement toward “enlightened professional development” (p. 59) models of communities of practice, dynamic teaming, coaching, and distance supports.

It appeared that, although providers were granted the financial support to pursue self-selected training opportunities, the overall awareness or availability of *performing* models of professional development were not apparent. The providers had mentioned the process of teaming allotment early in their careers; however, budget restraints and infrastructure tightening have lessened the availability of this model of support. Additionally, within this study, the providers indicated a need for a deeper support in the practical application, rather than theoretical understanding, of strategies. This sentiment was described by three out of the four participants. Overall, providers indicated that their educational experiences provided little to no preparation for their work in EI (Part C). This finding reflects the wide recognition of ill-equipped providers serving I/Ts in the EI (Part C) Program (Bruder, Dunst, Wilson, & Stayton, 2013; Campbell, Chiarello, Wilcox, & Milbourne, 2009; Dunst, Bruder, & Espe-Sherwindt, 2014).

Bruder et al. (2013) indicated that approximately one-third of providers felt "very well prepared" to work with young children and their families (p. 258). Francois, Coufal, and Subramanian (2015) suggested that curricular experiences for SLPs have not changed significantly over the last decade and continue to overlook the EI (Part C) family-centered model. Further, the EI (Part C) family-centered model has been defined as nearly vacant in higher education (Fleming, Sawyer, & Campbell, 2011). Additionally, literature suggests that providers often receive clinically-oriented training in higher education, which conflicts the family-centered model (Bruder, Dunst, Wilson, & Stayton, 2013; Campbell et al. 2009; Francois, Coufal, & Subramanian, 2015).

The providers articulated an overabundance of theoretically-focused learning, with little practical experience. Within the identified opportunities for hands-on work, such as practicums, most of the providers were placed within the school-aged continuum. Therefore, the providers were typically administering clinically-based service delivery approaches, either in hospital or school-based settings without exposure to the EI (Part C) family-centered model. For example, Sarah indicated that her educational experiences "taught her what it was, but not how to do it."

More specifically, the provider articulated that she was able to define ASD, but did not know how to work with the children with ASD in order to progress their development based upon her education alone. Both Chloe and Sarah described learning to work with I/Ts in EI (Part C), as "on the job learning."

Provider strategies. Child-centered approaches often favored the acquisition of child skills to that of child participation within family routines (McWilliam, 2012, 2015). Findings of this study asserted that providers were generally more apt to focus upon enhancing the child's skills, rather than enhancing the family's routines. The skill-centered focus of providers in this study was recognized in the literature and showed alignment to this study's findings (Campbell & Sawyer, 2009; Colyvas, Sawyer, & Campbell, 2010). Additionally, this study added further consideration to the literature base, indicating that providers were generally unaware of the family's routines if the identified child skill set that was targeted was not functionally utilized within the routine. Accommodations provided to the family within their routines were indicated to reflect the observed findings of providers' general supports within this study. Ultimately, a provider-led approach to the use of routines, for the purpose of enhancing skills, appeared most frequently within the data sets.

Salisbury and Cushing (2013) contended that a provider-led approach proved effective to some degree; however, triadic sessions, where the caregiver was in the lead, engaged, and focused on the child, produced significantly more opportunities for progressing the child's development. The findings related to this study indicated that overall, the family adopted a participation style of observing, or watching, the interactions that occurred between the provider and the child. Kellar-Guenther, Rosenberg, Block, and Robinson (2014) expanded upon the participatory actions of families indicating that while in-home provision of services produced higher levels of family participation than clinic based settings, this difference was not significant. Therefore, this finding serves to support the findings within the observed literature base for the family and providers' lack of routines utilization and within home visit sessions. Additionally, this study added further consideration for the family independent participation styles.

Situation of EI (Part C) for I/Ts with ASDs. Specific to this study in the discussion on the identified assets and liabilities for I/Ts with ASDs, a prominent element of stress is indicated within the situation. An identified measure of stress has been correlated with families of children with ASD (Montes & Halterman, 2007; Pozo & Sarriá, 2014; Zablotsky, Bradshaw, & Stuart, 2013).

Additionally, while the providers expressed an enjoyment in their job overall, difficulties in the case of an ASD were described. Bright and Pryor (2008) described that a process of reinvention is necessary which allows for the identification of new opportunities, setback recovery, capitalization on new opportunities, and finding meaning within employment. The providers expressed a sense of frustration in working with I/Ts with ASDs with regard to the trial and error process observed in their support provided to the family. Providers described flexibility as an essential feature of their service delivery for I/Ts with ASDs. Sarah described flexibility as, suspending the creation of a lesson plan for the session. Chloe described flexibility as understanding that rewards and reinforcements won't work for long. Nikki further described flexibility as being compassionate and understanding when families are too overwhelmed for visits.

While providers described their required need for flexibility in the case of I/Ts with ASDs, they expressed that family flexibility is also essential. Research has indicated that families of children with ASDs often focus exclusively on the child's needs or potentially exclude the child from participation within the family routines (DeGrace, 2004; Segal, 2004; Wolin & Bennett, 1984). The exclusive focus on the child was mentioned by each of the providers in a way that included placating the child's needs. Nikki described the process of assisting families of I/Ts with ASDs in EI (Part C) as "rocking the boat" which often produced a slight heighten state of stress for the family. The challenges, however, were indicated by the providers to produce successful results when the family bought in to the methods suggested.

Mattern's (2015) research suggested the importance of family buy-in through the use of providers' meaningful communication to families. The author's research showed that in day-school based settings and home-based settings, families and teachers did not generally feel that providers communicated their approach in a way that was meaningful. Therefore, providers in this study indicated that families must buy-in to the suggestions in order for the suggestions to be successful. Within this study, the family had indicated that several provider suggestions for their child did not match the family's desire due to the upset that it caused the child. This study served to align with the larger literature base which indicated that effective communication is critical for family buy-in.

Summary of Theoretical Proposition 1: Assets and Liabilities

Overall, the findings of this study served to generalize to the larger literature base with regard to the (a) general lack of provider preparation, (b) the use of child-directed approaches, and (c) a research to practice gap. The findings, alongside the literature base suggest that overall this theoretical proposition may stand as measure from which to develop potential theories for further identifying relationships between the variables.

Theoretical Proposition 2: Influences

Theoretical proposition number two stated "Social, cultural, and historical influences are present in the implementation of EI (Part C) home visitation lending to the use of family routines." This finding was most notably reflected within the education and training gathered from the providers within this study. For example, a majority of the providers had indicated that ASDs was not discussed until their master's studies. The providers described that the education of ASDs was predominately presented in a theoretically descriptive way. Only one ASD treatment methodology was mentioned within the providers' education. Sarah described that Applied Behavior Analysis [ABA] was expressed as the evidenced-based option for children with ASD; however, she further described that this method was only described theoretically without instruction of practical application.

ABA has been identified to focus on discipline strategies for increasing child attention and compliance (Casenheiser, Shanker, & Stieben, 2011). The use of a table to assist with the child's attending has been utilized in behavioral approaches. Nikki, who had received the most education, training, and self-sought information related to ASD described her recommendation to the family in the use of the table in order to increase Cole's attention, which may have been indicative of the ABA approach. Although Nikki did not specifically indicate an ABA approach to services; her extensive training may have influenced her use of techniques which appeared to be skill-based in nature such as naming items and putting together puzzles. During the home visit session, the majority of the visit was spent in a child-provider interactive capacity with discussion as the primary means of engagement with the Chris and Donna. However, as mom returned home from work, she actively engaged using triangulation with Nikki and Cole at the table using the family routine of playing with toys.

Within the current study, findings identified providers' desire to better understand strategies for working with and supporting I/Ts with ASDs. Providers described seeking out information such as websites and trainings; however, it appears that a need continues to exist for the progression within the researched understanding of how to best assist families of I/Ts with ASDs. Literature specific to EI practices for I/Ts with ASDs remains quite sparse (Boyd et al., 2010; Schertz et al., 2011; Siller et al., 2013). Rogers (2009) indicated that when literature on young children with ASDs is located, elements of family and their cultural perspectives are nearly vacant in the material. Additionally, Schertz, Reichow, Tan, Vaiouli, and Yildirim (2012) conducted a comprehensive review of studies of interventions for I/Ts with ASDs. Their review found 20 available articles, with only one article focusing on parent and family well-being.

Summary of Theoretical Proposition 2: Influences

While the second theoretical proposition was created to identify examples of societal and historical influence, overall, these findings was not deeply supported within the data. Several instances were noted that indicated a knowledge of historically accepted models of behavioral treatments; however, the mentions of ABA and behavioral treatment were mentioned theoretically rather than in a practical context. Additionally, while the chronosystem indicated changes due to the passage of time, it appears that relatively little change has occurred in provide practices (Bronfenbrenner, 1986). Therefore, within this study, theoretical proposition number two did not provide the research with enough evidence to generalize the statement to the larger literature base.

Theoretical Proposition 3: Child-Centered Overutilization

Theoretical proposition number three stated, "As a whole, in the EI (Part C) Program, family-centered practices are in transition, indicating that child-centered models may be over utilized." Child-centered referred to the direct interactions between the provider and child. McWilliam (2012) expressed that for EI (Part C) to progress, research needs to address what is actually happening during home visit sessions. This study served to explore home visit sessions finding that overall, parents were participatory, however, in varied ways. This study presented varied findings with regard to the observations, documents, and interview data in the use of child-centered approaches. As a majority, the child-centered, skill-focused approach was observed within this study showing that the majority of the interactions occurred between the providers and child, with discussion and suggestion being the main vehicles of interaction between the provider and family. There were, however, several exceptions to this finding.

When Biancah (mom) was present for the observed visits, she engaged in direct interaction with the provider placing herself in a triangulated fashion during the session. This participation often included Biancah interacting with the child while the provider guided, providing suggestions to enhance the skill, or interaction. Biancah was not present for Sarah's observed visit. Sarah's visit included Donna (grandma) who took a more observatory-engaged role. Sarah described grandma having been more active in the past in a more disciplinary fashion, in order to keep Cole within the space. Sarah expressed that since Cole had become more familiar with and accepting of the expectations, Donna didn't need to be as involved, suggesting a child-centered approach. The observations of mom's participation through observations, documents, and interview data however, suggest that she would be involved with the SLP sessions if she were not at work. The varied approaches to family participation also suggests that the providers' use of active family participation may be guided by the family member's comfort, understanding of EI (Part C), and interpretation of the services as well.

Whereas grandma was participating in a watching role in all observed sessions; she was not as actively involved with the observed sessions from an active participatory standpoint.

Therefore, Biancah's observed participatory role appeared to guide the interactions as triangulated, or an active-engaged. Whereas, Chris and Donna described and enacted a more observatory-engaged approach. Specific findings that may be generalized to the larger literature base from this study included the skill-specific focus and individual family members' participation style that appeared to drive the home visit sessions.

Individual family members represented a participation type (active-engaged, observatory-engaged). The providers involved the family members by actively engaging in discussion and questioning reflecting a family-centered help-giving style; however, providers remained skill-focused in their approach. Through provider interviews, an indication of expected participation of the family was evident; however, the family also indicated an expectation with regard to the providers' leading of the session. Therefore, it was indicated that an overall mismatch of participation expectations from providers and families may be apparent. The mismatch may lie in the family's view of traditional forms of therapy in which a therapist is working directly with a client; however, this child-centered approach is contrasted with the family-centered model (DEC, 2014). Therefore, within this study, a participation-expectation mismatch between the providers and family was observed.

Implications of the Research

The implications of this research served to generalize the findings to the current literature base, provide alternative evidence to the literature base, and add further consideration for the potential improvement of EI (Part C) practices. The direct study of multiple perspectives involved in an EI (Part C) team supporting an I/T with an ASD provided a naturalistic view of the supports that were provided to the family and how the family routines were utilized within the home visit sessions. This exploration provided a rich description of the findings in order to add to the current literature base. The following sections will discuss the direct implications of this study.

Provider Preparation

It was identified that a majority of the providers were afforded a practicum or internship within their graduate work. One provider described the opportunity to work with I/Ts in play-based evaluations; however, this experience was offered in a clinic setting. Two providers expressed the opportunity to work in clinically-based settings such as clinics and schools within their graduate work. None of the providers described practicum or internship experiences within their undergraduate work that pertained to I/Ts or family-centered systems. More specifically, the undergraduate experience was described as “theory only” or “no opportunities for practical application.” In each of these providers’ experience, there were no opportunities to directly work with I/Ts or conceptualize the family-centered model which resulted in the majority of providers expressing a desire to have known about the EI (Part C) Program. This lack of awareness for the EI (Part C) Program indicated that without chance encounters, one may not know about the opportunity to work with families of I/Ts with developmental delays or disabilities. One provider expressed that EI was considered “preschool”, or age three to five, within their program. In addition to this finding that considered the direct lack of contact with the I/T populations, further lack of exposure to the EI (Part C) model was apparent. A research-to-practice gap has also been identified within the current provision of services (Dunst, Bruder, & Espe-Sherwindt, 2014).

Recommendations for provider preparation. It would be of great value for accrediting bodies of the disciplines specific to the EI (Part C) program (OT, SLP, PT, and SI) to include an experience in EI (Part C) for their future educators. This addition to the accreditation process would ensure that the university has introduced the educator or clinician to the EI (Part C) Program and the family-centered model. Additionally, accreditation could potentially include the addition of one practicum experience, within a class that links the local EI (Part C) Program with the university. Francois, Coufal, and Subramanian (2015) expressed that challenges to the curricular experiences for students included lack of knowledgeable staff to convey family-centered approaches. To rectify this issue, linkages between the local EI (Part C) Programs and universities could dissolve such issues. A measure could include inviting the lead contact or providers within the EI (Part C) community as a guest speakers within one or several class periods. Following the class, linking students to one provider for the purpose of attending a home visit would provide both the opportunity to become exposed to the model of EI (Part C) theoretically in the classroom setting, in addition to viewing and engaging with the family-centered model that considers the child in the context of a larger family-home system (practical).

This recommendation included the consideration that clinical models may target the child’s acquisition of skills as a stand-alone entity without the conceptualization of the child’s functioning within the family system. It is possible that undergraduates pursuing education majors with the intention of becoming a teacher within school systems have not observed the interworking of the family system of an infant or toddler. This opportunity, whether the students pursue EI (Part C) service provision or not, may further provide a family-centered consideration rather than simply a child, clinical focus. In other words, the potential teacher of a second grade classroom may view the student, as not only a solitary student within a classroom, but show consideration for the student as part of a larger ecological system, inclusive of a family system.

Family preparation. The findings identified an individual disposition may have influenced family members' active or watching participation within the home visit sessions. It is recommended that EI (Part C) Programs serve to educate families about the family-centered model and their active participatory role within the sessions. It was observed through the findings from this particular study that family members assumed a particular *role* within the session, whether they were participating through discussion or through active means was varied between individuals. Through provider interviews within this study it was discovered that one provider assumed that "parents see me as a therapist that is there to just work with their child". It appears that, similar to the lack of preparation for therapists, an assumed lack of preparation for families within the process of EI (Part C) is indicated. Therefore, a recommendation gained from the results of this study include an element of family preparation for EI (Part C).

Current providers. Providers expressed an on-the-job learning experience within EI (Part C). Additionally, providers expressed that specifically for I/Ts the job required an extra skill set that was not apparent within their training. While the core deficits were mentioned by the providers within the study by way of on-the-job learning and experience, additional opportunities for the training specific to I/Ts with ASDs in EI (Part C) is recommended. Additionally, while research supports the use of family routines in the context of ASD for I/Ts through adolescence, the findings of this particular study identified a skill-focus that is context dependent. Therefore, it is recommended that training opportunities offer practical, as well as theoretical training opportunities for current providers that incorporate the core deficits with practical ideas for using family routines as the focus of the intervention. A theoretical-practical training opportunity would provide current practicing providers with a practical skill set application, along with the theoretical knowledge of why family routines are essential in the intervention for I/Ts with ASDs.

Additionally, while agencies such as the one in this study provide paid training opportunities to the providers, consideration for the types of training provided for is recommended. As research is suggesting that coaching models are a beneficial for changing the practices of providers (Marturana & Woods, 2012), agencies may encourage providers to seek out trainings that engage a *performing* model of professional development (Snyder, Hemmeter, & McLaughlin, 2011). In other words, agencies funding of training may begin to examine the coaching models associated with providers' change in practice.

Future Research

Based upon this study's research findings, several recommendations for future research were indicated. This section will discuss the recommendations based upon the findings of the current study and existent literature base. Recommendations included the future direction of research from the provider and family perspectives in EI (Part C) home visiting for families of I/Ts with ASDs.

Providers' awareness of family routines. Specific to the findings from this research study, an identified lack of awareness of family routines was apparent. It is recommended that future studies of provider perceptions within the actual use of family routines in EI (Part C) may further identify the needs with regard to training. Specifically, within the study, one provider felt as though using multiple locations through the home may result in the family feeling an invasion of privacy. Further analysis into the perceptions of providers in their use of family routines may guide the curricular development of trainings to target those perceptions and concerns.

Providers' use of research. An identified research-to-practice mismatch has been identified in EI (Part C). Therefore, research in the understanding of practicing providers' utilization and perceptions of research may uncover potential barriers to the identified gap. For instance, large scale research that identifies providers' knowledge of pivotal research documents and resources within the field of EI (Part C) may provide insight into the current awareness and/or use of research by practicing providers. A wealth of conceptually-based approaches were described within family-centered service delivery such as coaching, triangulation, family participation, and the providers' use of routines. Each concept presented multi-level considerations for researchers, in addition to the providers working in the field. A finding of interest to the researcher within this study was that providers did not report self-sought research to educate themselves. Such research would have included journals, research articles, DEC (2014) Recommended Practices, or other self-sought research-based methodologies as part of their training or education.

A described gap between research and practice was pinpointed within the literature base (Swanson, Raab, & Dunst, 2011; Hodgetts, Zwaigenbaum, & Nicholas, 2014; Sawyer & Campbell, 2009). This study served as a consensus with the larger literature base which observed that none of the practicing providers pursued research-based information within their training, education, or self-sought activities) serving to offer a direction for future research.

Discipline-specific awareness of EI (Part C). The findings from this exploratory, qualitative case study serve to provide a direction in future research from the multiple perspective approach utilized within this research. For example, an identified need area included the providers' education and training in the EI (Part C) model. Therefore, studies of current undergraduate and graduate students' in the areas of education, occupational therapy, physical therapy, speech and language pathology, and additional areas of specialty in EI (Part C) service delivery may be addressed through the research. For instance, future provider disciplines' knowledge and awareness of the EI (Part C) Program would benefit the understanding of such awareness. As indicated in this study, a majority of the providers had indicated that before they began serving in EI (Part C) they were unfamiliar with the program. Additionally, this study provided an indication that families hold multiple views of their active engagement within the services provided. Therefore, further studies examining families and their perception of participation in EI (Part C) may assist with identifying potential blocks to the use of family routines in EI (Part C).

Challenges in EI (Part C) for families of I/Ts with ASDs. An identified need for future research of evidence-based intervention models for ASDs in EI (Part C) is apparent (Schertz et al., 2011; Siller et al., 2013). A continued need for research in the challenges that families of I/Ts with ASDs face in the daily family routines has also been indicated (Boyd et al., 2010). This research study offered an indication that providers are generally focused on the skills of children, more so than the family routine functioning. Further research may include the observed match of provider focus and family concerns. A focus on matching of the provider-family concerns may provide the field with additional understanding of how skills of I/Ts with ASDs may be enhanced through the direct link of family concern. Further, through the continued research of the core deficits associated with ASDs in I/Ts and family concerns, research may begin to provide more practical techniques for the providers working directly with families.

Strengths of the Research

An extensive review of the literature provided this study with an informed position from which to conduct this research. McWilliam (2012) indicated that further research was necessary to understand the practices of home visitors. This research provided an in-depth, multiple perspective view of home visit sessions for an I/T with an ASD (Hancock & Algozzine, 2010; Yin, 2014). This research provided the literature base with an understanding of provider current practices in their direct supports to families of I/Ts with ASDs. More recent literature has engaged a cause-effect approach to changing the practices of providers in home visit sessions (Fox et al., 2011; Marturana & Woods, 2012); however this study provided a view from which to evaluate provider practices without intervention. The opportunity to view direct practices that have not been modified by specific training allowed for the exploration of the natural supports and use of routines in EI (Part C) home visit sessions for a toddler diagnosed with an ASD. This provided research with the opportunity to begin a discussion of assets and liabilities to the use of family routines in EI (Part C) for I/Ts with ASDs. More specifically, this study provided the literature base with a description of the providers' perceptions and use of family routines in EI (Part C) home visit sessions for I/Ts with ASDs.

This study utilized Transition Theory as a means to evaluating assets and liabilities for the providers' use or non-use of family routines in EI (Part C). It appears that Transition Theory is a promising theoretical stance from which to evaluate EI (Part C) providers' movement from child-centered to family-centered practices. Additionally, the adapted data collection tools proved a useful exploration of provider experience in EI (Part C) models. Knoche, Kuhn, and Eum (2014) identified that hiring standards and professional development of providers should consider the providers' experience and effectiveness in coaching strategies. The adapted ecomap provides a clear visual graphic from which to evaluate the balanced and meaningful professional development training activities of providers. Additionally, hiring could include the use of the adapted ecomap as a training indicator for evaluating knowledge of EI (Part C) family-centered models.

Limitations of the Research

Limitations of the current study include the nature of case study research with regard to generalization to a wider population (Hancock & Algozzine, 2011). This research observed the functioning of one team supporting a family of an I/T with an ASD in EI (Part C) home visit sessions. Therefore, this study presents a narrow window of findings. Glesne and Peshkin (1992) expressed that wide generalization should hold little meaning to qualitative researchers. However, the framework of this study could be conducted on a large scale using various researchers in various states to explore a larger population. Therefore, while the study sought to create an in-depth understanding to the situation a framework for larger exploration was engaged. As a single case, however, limited the generalization of the research to a wide population. Additionally, the researcher indicated her positioning within the methodology section in order to assert herself within the research (Creswell, 2011). Due to the work and training completed in the EI (Part C) system, a potential for bias existed in the researcher’s interpretation of the study’s findings.

Summary of Conclusions

This study sought to explore the providers’ supports for families of I/Ts with ASDs in EI (Part C) home visit sessions. More specifically, this research served to describe the use of family routines within the context of EI (Part C) home visit session for an I/T with an ASD. Ecological Systems Theory was used to guide the conceptualization of the child’s environmental systems that influence their development. Further, Transition Theory was used to evaluate the assets and liabilities that are associated with the supports that were afforded to a family of an I/T diagnosed with an ASD. A case within a case approach provided depth within the research which included an EI (Part C) team serving a toddler diagnosed with an ASD.

The findings from this study identified that providers utilized the family routines of play, eating or mealtime, and dressing as the context for intervention. Child skill enhancement was observed within the data to be the primary means of support to the family. The ways in which providers offered this support included engaging with the family and remaining flexible within the supports provided. The observed vehicles for engaging with the family included discussion, active engagement, and family education through provider teaching. Providers described the need for a flexible approach in service delivery through the use of trial and error strategies and compassion within the family's typical functioning.

The use of family routines was indicated to be secondary to the focus of child skill enhancement within this study. Providers often utilized the family routines of play, dressing, or mealtimes/eating as a means to providing specific guidance to the child skill enhancement versus the child's functional engagement within the routine. Providers expressed an overall lack of education and training specific to EI (Part C) service provision. Indications of a theoretically-based knowledge of clinical service delivery were apparent. Service delivery appeared to reflect a blend of family-centered help-giving practices with a child-centered, skill-based focus. Providers described their experiences in EI (Part C) as on-the-job learning, which appeared to reflect this blended approach to service delivery. Additionally, implications of the skill-centered focus differentiated the individual family members' perception of their involvement with the services provided.

The overall findings within this research support previous findings of lack of provider education and training, however, describe the need for practical exposure to EI (Part C) family-centered models. Additionally, this study served to describe the need for training specific to the use of family routines in EI (Part C), most notably for the population of I/Ts with ASDs. This included both providers and families in the EI (Part C) system. Based upon the recommendations of research to support the family routines for families of children with ASD, this study serves to convey the need for both theoretical and practical education in the areas of family-centered services and the use of family routines in EI (Part C).

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Appendix A

The 4 S System in Ecological Context

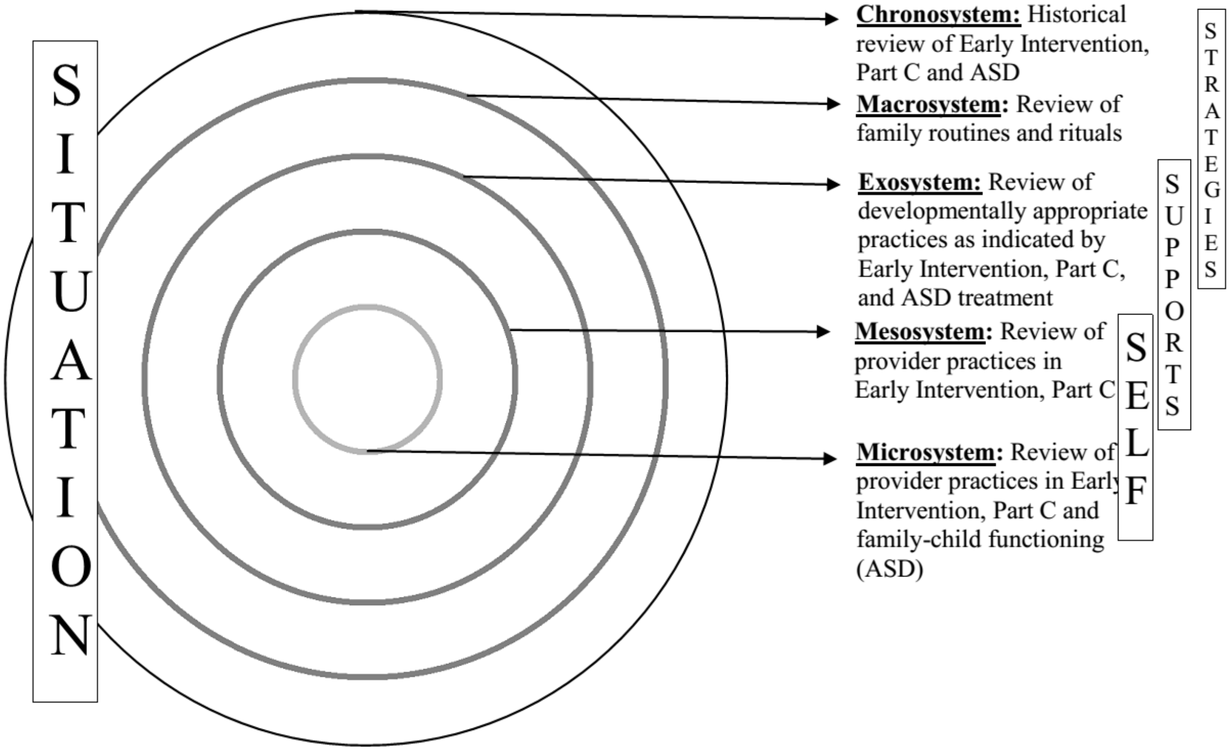

Figure 1. The 4 S System in Ecological context. This figure represents the framework used to review the literature surrounding the situation of Early Intervention (Part C) for infant and toddlers with ASDs.

Appendix B

Family Informed Consent Letter

Indiana University of Pennsylvania
Department of Professional Studies in Education
724-357-2400
Internet: *http://www.iup.ed*
Davis Hall, Room 303
570 S. Eleventh Street
Indiana, Pennsylvania 15705-1087

Greetings:

You are invited to participate in a research study. This research will be conducted by me, Melissa Casses, a Special Instructor with the Early Intervention system and doctoral candidate in the Curriculum & Instruction Program at Indiana University of Pennsylvania. The following information is provided in order to help you to make an informed decision whether or not to participate. You are eligible to participate because you are a parent of a child diagnosed with, or suspected of, an autism spectrum disorder (ASD) receiving services through the Early Intervention Part C System.

The purpose of this study is to explore the use of supports and strategies provided to your family by the Early Intervention Part C System. The information gained may help the field of early intervention by furthering the research, training, and technical assistance for the intervention of infants and toddlers with, or suspected of, ASD. Participation in this study will require: a) your permission for me to attend, observe, and video-record home-visits with each one of the four providers (speech and language pathologist, special instructor, physical therapist, and occupational therapist). The videos will be used for data collection purposes and will be viewed only by me; b) Additionally, I will ask for copies of the notes from the special instructor, speech and language pathologist, physical therapist, and occupational therapist for the sessions in which I observe, as well as for the previous three sessions. These documents will be reviewed to identify the supports your family receives during those visits; c) an interview with you at a location of your choice and convenience which should last about 60 minutes. The interview will be audio recorded and transcribed for data collection purposes. Questions will be asked about your daily family routines during bedtime, mealtime, etc.

Your participation in this study is voluntary. You are free to decide not to participate in this study or to withdraw at any time without adversely affecting your relationship with any entity within the Part C Early Intervention System. Should you decide not to participate, your decision will not result in any loss of benefits or services to which your child is otherwise entitled. If you choose to participate, you may withdraw at any time by notifying the researcher, the project supervisor, or Beginnings, Inc. Upon your request to withdraw, all information pertaining to you and your family will be destroyed. If you choose to participate, all information will be held in strict confidence and will have no bearing on your child's Early Intervention service delivery you receive. There are no known risks associated with this study and your responses will be considered in combination with those of your providers of service. The information obtained in the study may be published in scientific journals or presented at scientific meetings but your identity will be kept strictly confidential. If your team is selected to participate in this research study, a $20 Sheetz gift card will be presented to you as a thank you for your time. At the conclusion of the study, you will be offered an executive summary of the results.

If you are willing to participate in this study, please sign the statement below and return it in the self-addressed stamped envelope provided by the researcher. Upon receipt of your signed consent, the researcher will contact you by telephone clarify any questions that you may have pertaining to the research. Thank you for your consideration.

Project Director: Mrs. Melissa M. Casses
Doctoral Student, Curriculum and Instruction
IUP, Professional Studies in Education, 305 Davis Hall
Indiana, PA 15705
Phone: (321) 446-0015
M.M.Casses@iup.edu

Project Supervisor: Dr. Kelli R. Paquette
Rank/Position: Professor
IUP Professional Studies in Education, 305 Davis Hall
Indiana, PA 15705
Phone: (724) 357-2400
kpaquett@iup.edu

This project has been approved by the Indiana University of Pennsylvania Institutional Review Board for the Protection of Human Subjects (Phone: (724) 357-7730).

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Davis Hall, Room 303
570 S. Eleventh Street
Indiana, Pennsylvania 15705-1087

Informed Consent Form (continued)

VOLUNTARY CONSENT FORM:

I have read and understand the information on the form and I consent to volunteer to be a subject in this study. I understand that my responses are completely confidential and that I have the right to withdraw at any time. I understand that all data collected for the study will be stored for three years in a secure, fireproof lockbox in the researcher's office. I understand that data will not be shared and my privacy will be diligently maintained by the researcher. I have received an unsigned copy of this informed Consent Form to keep in my possession.

Name (PLEASE PRINT) ____

Signature ____

Date ____

I am aware and consent to the video recording of the home-visit sessions with each of the four providers. I have been informed that the video recordings will only be observed by the researcher for the purposes of review and data analysis.

***PLEASE INITIAL* to indicate your consent for video recording described above.** ______________

I am aware and consent to the researcher's review of session notes from the special instructor, speech and language pathologist, physical therapist, and occupational therapist for the sessions in which I observe, as well as for the previous three sessions. These documents will be reviewed to identify the supports your family receives during those visits.

***PLEASE INITIAL* to indicate your consent for session note review described above.** ___________

The interview will be audio recorded for data collection purposes and will be used to transcribe the interview for further review. Questions will be asked about your daily family routines during bedtime, mealtime, etc.

***PLEASE INITIAL* to indicate your consent for audio recording described above.** _____________

Phone number or location where you can be reached ____

Best days and times to reach you ____

Please indicate any questions that you may have for the researcher which will be responded to upon the initial contact: (Please use the back of this sheet if necessary)

Appendix C

Provider Informed Consent Letter

Indiana University of Pennsylvania
Department of Professional Studies in Education
724-357-2400
Internet: *http://www.iup.ed*
Davis Hall, Room 303
570 S. Eleventh Street
Indiana, Pennsylvania 15705-1087

Greetings:

You are invited to participate in this research study because you are a provider of early intervention services for a family who has agreed to participate in this study. This research will be conducted by me, Melissa Casses, a Special Instructor with the Early Intervention Part C System and doctoral candidate in the Curriculum & Instruction Program at Indiana University of Pennsylvania. The following information is provided in order to help you to make an informed decision whether or not to participate.

The purpose of this study is to explore the use of supports and strategies for building family-capacity within the family-centered methodologies of Early Intervention. The information gained from this study may help the field of early intervention by furthering the research, training, and technical assistance for the intervention of infants and toddlers with (ASD). Participation in this study will require your permission for me to attend one of your scheduled home-visits. I'm also asking for permission to video-record so I can later review it. The videos will be used for data collection purposes and will be viewed only by me. Additionally, I will ask for copies of the notes for the session in which I observe, as well as for the previous three sessions with the particular family. These notes will be reviewed to identify the supports and strategies given by you. Finally, I would like to schedule an interview with you at a location of your choice and convenience which should last about 60 minutes. The interview will be audio recorded and transcribed for data collection purposes. Questions will be asked about your perceptions of supporting families of infants and toddlers with ASD, as well as your experiences in doing so.

Your participation in this study is voluntary. You are free to decide not to participate in this study or to withdraw at any time without adversely affecting your relationship with the Part C Early Intervention System. Should you decide not to participate, your decision will not result in any loss of benefits of referrals to within the Part C Early Intervention System. If you choose to participate, you may withdraw at any time by notifying the researcher, Beginnings, Inc., or the project supervisor. Upon your request to withdraw, all information pertaining to you will be destroyed. If you choose to participate, all information will be held in strict confidence and will have no bearing on your standing in the Early Intervention Part C system. Your response will be considered in combination with the family and each of the providers. If you are selected to participate in this research study, a $20 Sheetz gift card will be presented to you as a thank you for your time. The information obtained in the study may be published in scientific journals or presented at scientific meetings but your identity will be kept strictly confidential. You will be invited to participate in a meeting to discuss the results at the conclusion of the study and offered a copy of the executive summary of the results from this study.

If you are willing to participate in this study, please sign the statement below and return it to the researcher in the self-addressed stamped envelope provided to you. If your team is selected for this research study, the researcher will contact you to set up a date for observation. Thank you for your consideration.

Project Director: Mrs. Melissa M. Casses
Doctoral Student, Curriculum and Instruction
IUP, Professional Studies in Education, 305 Davis Hall
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Phone: (321) 446-0015
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Informed Consent Form (continued)

VOLUNTARY CONSENT FORM:

I have read and understand the information on the form and I consent to volunteer to be a subject in this study. I understand that my responses are completely confidential and that I have the right to withdraw at any time. I understand that all data collected for the study will be stored for three years in a secure, fireproof lockbox in the researcher's office. I understand that data will not be shared and my privacy will be diligently maintained by the researcher. I have received an unsigned copy of this informed Consent Form to keep in my possession.

Name (PLEASE PRINT) ____

Signature ____

Date ____

I am aware and consent to the video recording of one home-visit session. I have been informed that the video recordings will only be observed by the researcher for the purposes of review and data analysis.

***PLEASE INITIAL* to indicate your consent for video recording described above.** _______________

I am aware and consent to the researcher's review of session notes for the sessions in which I observe, as well as for the previous three sessions. These documents will be reviewed to identify the supports that were provided during those visits.

***PLEASE INITIAL* to indicate your consent for session note review described above. _____________**

The interview will be audio recorded for data collection purposes and will be used to transcribe the interview for further review. Questions will be asked about your perceptions of supporting families of infants and toddlers with ASD, as well as your experiences in doing so.

***PLEASE INITIAL* to indicate your consent for audio recording described above. _______________**

Phone number or location where you can be reached ____

Best days and times to reach you ____

Please indicate any questions that you may have for the researcher which will be responded to upon the initial contact: (Please use the back of this sheet if necessary)

Appendix D

Service Coordinator Informed Consent Letter

Indiana University of Pennsylvania
Department of Professional Studies in Education
724-357-2400
Internet: *http://www.iup.ed*
Davis Hall, Room 303
570 S. Eleventh Street
Indiana, Pennsylvania 15705-1087

Greetings:

You are invited to participate in this research study because you are a service coordinator of early intervention services for a family who has agreed to participate in this study. This research will be conducted by me, Melissa Casses, a Special Instructor with the Early Intervention Part C System and doctoral candidate in the Curriculum & Instruction Program at Indiana University of Pennsylvania. The following information is provided in order to help you to make an informed decision whether or not to participate.

The purpose of this study is to explore the use of supports and strategies for building family-capacity within the family-centered methodologies of Early Intervention. The information gained from this study may help the field of early intervention by furthering the research, training, and technical assistance for the intervention of infants and toddlers with (ASD). Participation in this study will require your permission for me to schedule an interview with you at a location of your choice and convenience which should last about 60 minutes. The interview will be audio recorded and transcribed for data collection purposes. Questions will be asked about your perceptions of supporting families of infants and toddlers with ASD, as well as your experiences in doing so.

Your participation in this study is voluntary. You are free to decide not to participate in this study or to withdraw at any time without adversely affecting your relationship with the Part C Early Intervention System. Should you decide not to participate, your decision will not result in any consequences within the Part C Early Intervention System. If you choose to participate, you may withdraw at any time by notifying the researcher, Beginnings, Inc., or the project supervisor. Upon your request to withdraw, all information pertaining to you will be destroyed. If you choose to participate, all information will be held in strict confidence and will have no bearing on your standing in the Early Intervention Part C system. Your response will be considered in combination with the family and each of the providers. If you are selected to participate in this research study, a $20 Sheetz gift card will be presented to you as a thank you for your time. The information obtained in the study may be published in scientific journals or presented at scientific meetings but your identity will be kept strictly confidential. You will be invited to participate in a meeting to discuss the results at the conclusion of the study and offered a copy of the executive summary of the results from this study.

If you are willing to participate in this study, please sign the statement below and return it to the researcher in the self-addressed stamped envelope provided to you. If your team is selected for this research study, the researcher will contact you to set up a date for observation. Thank you for your consideration.

Project Director: Mrs. Melissa M. Casses
Doctoral Student, Curriculum and Instruction
IUP, Professional Studies in Education, 305 Davis Hall
Indiana, PA 15705
Phone: (321) 446-0015
M.M.Casses@iup.edu

Project Supervisor: Dr. Kelli R. Paquette
Rank/Position: Professor
IUP Professional Studies in Education, 305 Davis Hall
Indiana, PA 15705
Phone: (724) 357-2400
kpaquett@iup.edu

This project has been approved by the Indiana University of Pennsylvania Institutional Review Board for the Protection of Human Subjects (Phone: (724) 357-7730).

Indiana University of Pennsylvania
Department of Professional Studies in Education
724-357-2400
Internet: *http://www.iup.ed*
Davis Hall, Room 303
570 S. Eleventh Street
Indiana, Pennsylvania 15705-1087

Informed Consent Form (continued)

VOLUNTARY CONSENT FORM:

I have read and understand the information on the form and I consent to volunteer to be a subject in this study. I understand that my responses are completely confidential and that I have the right to withdraw at any time. I understand that all data collected for the study will be stored for three years in a secure, fireproof lockbox in the researcher's office. I understand that data will not be shared and my privacy will be diligently maintained by the researcher. I have received an unsigned copy of this informed Consent Form to keep in my possession.

Name (PLEASE PRINT) ____

Signature ____

Date ____

The interview will be audio recorded for data collection purposes and will be used to transcribe the interview for further review. Questions will be asked about your perceptions of supporting families of infants and toddlers with ASD, as well as your experiences in doing so.

***PLEASE INITIAL* to indicate your consent for audio recording described above. ______________**

Phone number or location where you can be reached ____

Best days and times to reach you ____

Please indicate any questions that you may have for the researcher which will be responded to upon the initial contact: (Please use the back of this sheet if necessary)

Appendix E

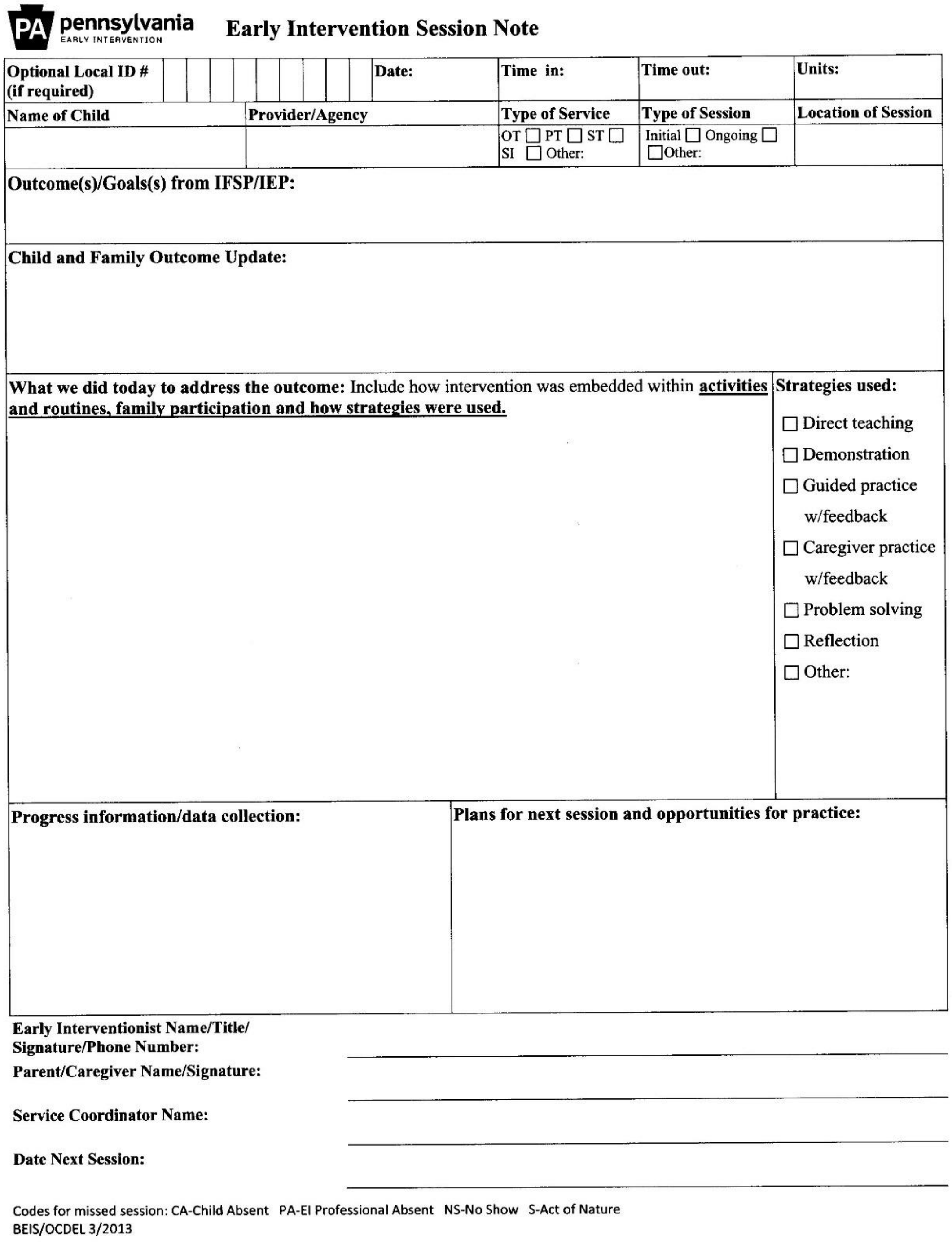
Structured Observation Protocol

Provider Code: Date:

Context for Intervention (Activity or Routine)	**Observations**	**Initial Coding**	**Final Coding**

Appendix F

Blank Home Visit Session Note



PA pennsylvania
EARLY INTERVENTION

Early Intervention Session Note

Optional Local ID # (if required)	**Date:**	**Time in:**	**Time out:**	**Units:**
Name of Child	**Provider/Agency**	**Type of Service**	**Type of Session**	**Location of Session**
		OT ☐ PT ☐ ST ☐ SI ☐ Other:	Initial ☐ Ongoing ☐ ☐Other:	

Outcome(s)/Goals(s) from IFSP/IEP:

Child and Family Outcome Update:

What we did today to address the outcome: Include how intervention was embedded within **activities and routines, family participation and how strategies were used.**

Strategies used:

- ☐ Direct teaching
- ☐ Demonstration
- ☐ Guided practice w/feedback
- ☐ Caregiver practice w/feedback
- ☐ Problem solving
- ☐ Reflection
- ☐ Other:

Progress information/data collection:

Plans for next session and opportunities for practice:

Early Interventionist Name/Title/ Signature/Phone Number: ____________________

Parent/Caregiver Name/Signature: ____________________

Service Coordinator Name: ____________________

Date Next Session: ____________________

Codes for missed session: CA-Child Absent PA-EI Professional Absent NS-No Show S-Act of Nature
BEIS/OCDEL 3/2013

Appendix G

Family Semi-Structure Interview Protocol

1. **I'd like to start out by getting to know you a little bit. Can you please tell me a little bit about yourself?**
    - Age
    - What is your general outlook on life? (Optimism/Pessimism)
    - What things do you do to keep yourself mentally healthy? Hobbies? How does this help?
    - How would you describe your experience of parenting your child?
    - What is your outlook on religion? How does this, if at all, fit into your experience in raising your child?
2. **What are your main concerns? Think about questions, difficulties, or needs for both your child and your family as a whole.**

3. **What are the main routines of your family's weekday?**

4. **For each routine checked, think about these questions:**
    - What do you do during this routine?
    - What does the child do during this routine?
    - Who else is typically involved in the routine?
    - How does your child affect this routine?
    - How satisfied are you with this routine?
    - *How well does your child fit into the routine?*
    - *What specific strengths or needs does the child have in the routine?*

5. **What accommodations have been provided to you by EI Providers in this routine?**
    - Have the accommodations or modifications been successful in their implementation?
    - Have the accommodations been easy to utilize in daily life?

6. **Can you describe your perception of early intervention services? What does and has this meant to you as a family?**

7. **Can you tell me a little about the services that have been provided to your family?**
    - Where do they typically happen?
    - Who leads the sessions? Choses what to work on, etc.
    - How involved are you in the services?

Appendix H

Provider Semi-Structured Interview Protocol

1. **I'd like to start out by getting to know you a little bit. Can you please tell me a little bit about yourself?**
    - Age
    - General Outlook on life
    - General outlook on providing EI services
    - How long have you been providing services?

2 **Please tell me about your educational background. Let's start with your degrees from granting institutions. Where, What?**
- Which of these educational experiences included a focus on Early Intervention family-centered services?
- Which of these educational experiences included a study of autism spectrum disorder in infants and toddlers?

3 **What trainings have you received through Early Intervention that were provided to you by your agency, the state, or sponsored by the state (paid to attend, or not required to pay)?**
- Which of these training experiences included a focus on Early Intervention family-centered services?
- Which of these training experiences included a study of autism spectrum disorder in infants and toddlers?

4 **Can you tell me about any self-sought training experiences that you have completed not provided by your Early Intervention agency or sponsored by Part C, in other words something that you had to pay to attend?**
- Which of these educational experiences included a focus on Early Intervention family-centered services?
- Which of these educational experiences included a study of autism spectrum disorder in infants and toddlers?

5 **Are there any other types of support that you have for providing early intervention services?**
- Colleagues, meetings, supervision, belonging to organizations, journal subscriptions, etc.
- Which of these educational experiences included a focus on Early Intervention family-centered services?
- Which of these educational experiences included a study of autism spectrum disorder in infants and toddlers?

6 **Thinking about the family that you serve, what are their main concerns? Think about questions, difficulties, or needs for both the child and the family as a whole.**

7 **What are some of the family's main routines that they engage in?**

8 **Now, for each one of those routines, I'd like to know how you perceive the child and family functioning during those routines.**
  - What does the family do during this routine?
  - What does the child do during this routine?
  - How does the child affect this routine?
  - How satisfied is the family with this routine?
  - How well does the child fit into the routine?
  - What specific strengths or needs does the child have in the routine?

9 **Looking towards the services that you provide, how would explain your role within the family how you'd describe how you provide accommodations for these routines?**
  - Have the accommodations or modifications been successful in their implementation?
  - Do you believe that there is carry-over in the strategy? Why or why not?

10 **Can you describe your perception of family-centered services? What does this mean to you as an early intervention provider?**

11 **Can you tell me a little about the services that you provide for infants and toddlers with autism spectrum disorders- or if autism spectrum disorders are suspected in the child?**
  - Where do they typically happen?
  - Who leads the sessions?
  - How involved are the parents?

12 **Can you tell me a little bit about your perception of autism in infancy and toddlerhood?**
  - What are some of the core defining features or autism in infant/toddlers?
  - What areas are most important to address when a child is diagnosed or suspected of an autism spectrum disorder?

13 **Can you tell me about your perceptions and experiences of providing family-centered services to infants and toddlers with autism spectrum disorders?**

Appendix I

Service Coordinator Semi-Structured Interview Protocol

1. **I'd like to start out by getting to know you a little bit. Can you please tell me a little bit about yourself?**
    - Age
    - General Outlook on life
    - General outlook on coordinating EI services
    - How long have you been coordinating services?

2. **Please tell me about your educational background. Let's start with your degrees from granting institutions. Where, What?**
    - Which of these educational experiences included a focus on Early Intervention family-centered services?
    - Which of these educational experiences included a study of autism spectrum disorder in infants and toddlers?

3. **What trainings have you received through Early Intervention that were provided to you by your agency, the state, or sponsored by the state?**
    - Which of these educational experiences included a focus on Early Intervention family-centered services?
    - Which of these educational experiences included a study of autism spectrum disorder in infants and toddlers?

4. **Can you tell me about any self-sought training experiences that you have completed not provided by your Early Intervention agency or sponsored by Part C, in other words something that you had to pay to attend?**
    - Which of these educational experiences included a focus on Early Intervention family-centered services?
    - Which of these educational experiences included a study of autism spectrum disorder in infants and toddlers?

5. **Are there any other types of support that you have for providing early intervention services?**
    - Colleagues, meetings, supervision, belonging to organizations, journal subscriptions, etc.
    - Which of these educational experiences included a focus on Early Intervention family-centered services?
    - Which of these educational experiences included a study of autism spectrum disorder in infants and toddlers?

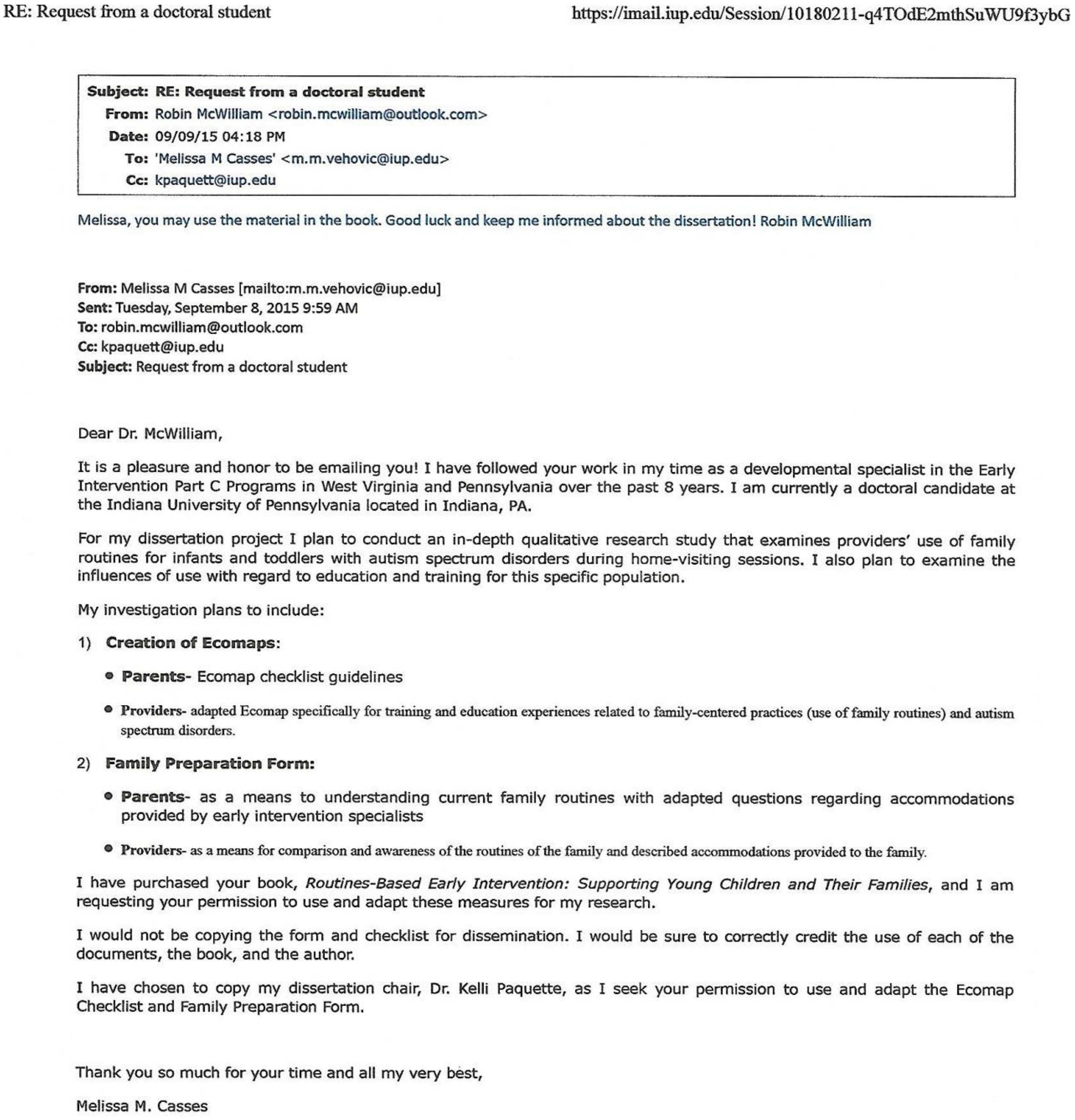
6. **How would you describe coordinating services for infants and toddlers with ASD?**
    - What special considerations are needed?
    - Challenges/Joys

- How if at all do you handle these families differently?

7. **When engaging providers in writing outcomes for families, what considerations must be made for I/T with ASD?**
    - What is your main priority?
    - How do you handle family desires and provider recommendations when they are in contrast?

Appendix J

Email Permission to Adapt the Ecomap and Family Preparation Checklists



RE: Request from a doctoral student https://imail.iup.edu/Session/10180211-q4TOdE2mthSuWU9f3ybG

Subject: **RE: Request from a doctoral student**
From: Robin McWilliam <robin.mcwilliam@outlook.com>
Date: 09/09/15 04:18 PM
To: 'Melissa M Casses' <m.m.vehovic@iup.edu>
Cc: kpaquett@iup.edu

Melissa, you may use the material in the book. Good luck and keep me informed about the dissertation! Robin McWilliam

From: Melissa M Casses [mailto:m.m.vehovic@iup.edu]
Sent: Tuesday, September 8, 2015 9:59 AM
To: robin.mcwilliam@outlook.com
Cc: kpaquett@iup.edu
Subject: Request from a doctoral student

Dear Dr. McWilliam,

It is a pleasure and honor to be emailing you! I have followed your work in my time as a developmental specialist in the Early Intervention Part C Programs in West Virginia and Pennsylvania over the past 8 years. I am currently a doctoral candidate at the Indiana University of Pennsylvania located in Indiana, PA.

For my dissertation project I plan to conduct an in-depth qualitative research study that examines providers' use of family routines for infants and toddlers with autism spectrum disorders during home-visiting sessions. I also plan to examine the influences of use with regard to education and training for this specific population.

My investigation plans to include:

1) **Creation of Ecomaps**:
    - **Parents-** Ecomap checklist guidelines
    - **Providers-** adapted Ecomap specifically for training and education experiences related to family-centered practices (use of family routines) and autism spectrum disorders.
2) **Family Preparation Form:**
    - **Parents-** as a means to understanding current family routines with adapted questions regarding accommodations provided by early intervention specialists
    - **Providers-** as a means for comparison and awareness of the routines of the family and described accommodations provided to the family.

I have purchased your book, *Routines-Based Early Intervention: Supporting Young Children and Their Families*, and I am requesting your permission to use and adapt these measures for my research.

I would not be copying the form and checklist for dissemination. I would be sure to correctly credit the use of each of the documents, the book, and the author.

I have chosen to copy my dissertation chair, Dr. Kelli Paquette, as I seek your permission to use and adapt the Ecomap Checklist and Family Preparation Form.

Thank you so much for your time and all my very best,

Melissa M. Casses