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Special Issue: Family Science Careers Through the Eyes of Theory

This manuscript is part of a special issue of Family Science Review entitled Family Science Careers Through the Eyes of Theory, edited by Raeann R. Hamon, Ph.D., CFLE. The authors of these deliberately unconventional manuscripts were asked to select and describe a career that a professional with a family science background might pursue. After outlining the professional role, authors reflected upon the family theories that most influence the way they approach their work and perform their professional duties. Authors briefly review the scholarly literature on selected family theories, provide case studies or work scenarios as illustrations of theory in action, and discuss the strengths and weaknesses of the theories in their unique professional contexts. The Special Issue articles are designed to be used individually or in combination, and feature articles about careers in early intervention, special education, family court, child life, and higher education. The introduction to the special issue is available at https://doi.org/10.26536/GMJK4953. The complete special issue is available at https://doi.org/10.26536/ZLUL3923.

Utilizing Family Theories to Maximize Early Intervention Work: An Examination and Application of Family Systems Theory and Bioecological Theory

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ABSTRACT. The field of early intervention is rapidly expanding. Individuals trained in Human Development and Family Science programs are uniquely situated for work in this setting, due to their diverse understanding of human development, from birth through death, and the role of the family system in influencing development. More specifically, individuals from this academic discipline can employ a family systems theory and bioecological theory perspectives to inform their intervention work. The unique insight these theories provide to enhance early intervention work will be discussed and then applied using an actual case study. Though family systems theory and bioecological theory do have limitations in this field, namely their inability to explain a behavioral change and non-linear orientation, the authors feel the benefits of both these theoretical perspectives for explaining family contexts outweigh the limitations.

Keywords: early intervention, family systems theory, bioecological theory, career exploration

Utilizing Family Theories to Maximize Early Intervention Work: An Examination and Application of Family Systems Theory and Bioecological Theory

Early intervention (EI) is both a dynamic and rewarding career that consists of coaching parents or guardians in supporting the development of children under three who are identified as demonstrating a developmental delay. Often, children are referred to EI services when parents or professionals (e.g., medical professionals, childcare providers) raise concerns related to children's on-time development. In the following paper, we will discuss this exciting career path and evaluate the utility that family systems theory and bioecological theory present for supporting excellent EI service delivery.

Career

Early Intervention Service Initiation Background

The field of early intervention is a dynamic career pathway found nationwide. Funds for services are allocated through Part C of the Individuals with Disabilities Education Act (IDEA), which is intended to cover services for children ages birth through two who qualify (Code of Federal Regulations, 2024). Children older than three may still qualify for services, but these are provided through school systems (Centers for Disease Control, 2022).

Funds for services are allocated to states, who then control the regulation and disbursement of funds. Caregivers or medical professionals who suspect developmental delays may encourage parents or guardians to contact Part C providers for an evaluation of services (Centers for Disease Control, 2022). Each state or territory has a main state office that coordinates Part C provider services; parents can contact this office to begin the referral process. Typically, the child will be given a battery of developmental tests. If the child meets the state's threshold for a delay in development or has a developmental condition that automatically qualifies the child for services (e.g., genetic disorders like down syndrome, attachment disorder, low birthweight, autism spectrum disorder), a child will be offered services intended to support their development (e.g., speech therapy, physical therapy, developmental therapies) and their home environment (e.g., child care assistance, TANF, WIC, SNAP, housing assistance; Center for Disease Control, 2022). Families are assigned a service team that includes a case manager or care provider, and two or more therapists who specialize in the services needed (e.g., speech therapist, physical therapist, medical professional, developmental therapist). Most recent national estimates found four percent of the population of children birth through age two utilized early intervention services (U.S. Department of Education, 2023). These data, however, may significantly underestimate the need for early intervention services based on a variety of factors including, but not limited to, pandemic impacts, referral waitlists, worker shortages, and geographical and racial differences in service provision (Office of Special Education Programs, 2024; Wilkinson & Harper, 2023).

Early Intervention Service Model

Though service models can differ state-by-state, the field of early intervention endorses a family-guided, routines-based model, whereby early intervention professionals coach parents and caregivers on service provision within children's natural environment (Jennings et al., 2012). After children are referred, an initial assessment occurs, which includes a battery of tests to provide a benchmark on all areas of development. Once deficits have been identified, a child is assigned a team of service providers—a collaborative team of professionals from diverse intervention areas—that coordinate to design an Individualized Family Service Plan [IFSP] (Pacer, 2023). The goal of the IFSP is to outline services and an expected timeline of service provision to aid children in overcoming their

developmental delays. Services are delivered in the child's natural environment on a mutually agreed-upon schedule, commonly weekly or bi-weekly. Every six months, families undergo an IFSP review to track progress, revisit service delivery, and re-engage in goal setting.

Significant evidence exists supporting the positive impact of evidence-based and research-based early intervention programs on children's development (see Maag & Katsiyannis, 2010). Among neurodiverse children, especially, emerging research suggests growth in composite measures of well-being when children participate in early intervention (Myers et al., 2022). Early intervention also provides environments for addressing and preventing deleterious effects of adverse childhood experiences (McKelvey et al., 2016). To be sure, early intervention efforts have proved successful in supporting children's normative development.

Early Intervention Daily Life

Those in early intervention can expect to be on the team of professionals tasked with carrying out the IFSP to support the child and caregivers. One might anticipate constant collaboration with a team of speech pathologists, occupational therapists, physical therapists, and other medical or highly skilled professionals. EIs serve most often in the role of developmental therapists within the child's service provision team. In this role, EIs provide support for a child's progress towards achieving developmental milestones.

EIs may expect a fast-paced work environment, as they transition to various homes within their caseload. It is not uncommon for EIs to visit as many as six to eight children on any given day. Upon arrival to the home, EIs check in with parents or guardians and ensure they have the resources needed for success in daily life. EIs also ask parents or caregivers if there is any specific aspect of the IFSP that they would like to work on for the day. Together with parent or caregiver input, EIs help guide parents in developmental therapies targeted towards the IFSP.

In guiding caregivers in developmental therapies, EIs leverage normal opportunities in a child's daily life (e.g., bath time routines, playtime routines, eating routines and so forth). A great amount of emphasis is placed on utilizing existing routines and resources within the environment due to children's familiarity with these routines (Kashinath et al., 2006). Additionally, parents may be more likely to embed the intervention within existing routines more successfully and with greater frequency (Kashinath et al.). Parents and caregivers then use the skills and knowledge to help address their children's delays.

Early Intervention Necessary Skills

One of the guiding features of EI work is the Individualized Family Service Plan, or IFSP, mentioned above. This includes the service provision goals and milestones that EIs set collaboratively with parents and in accordance with benchmarks and guidelines set by the larger service provision entity. Strict parameters for these physical and developmental milestones, as well as goals for when such developmental milestones ought to be achieved, are established. Though each state may have unique criteria, most closely follow the recommended timelines suggested by the Center for Disease Control (2024).

Integral to any EI's practice are skills necessary for connecting with the family, considering the child's needs in context, coaching families through reflective thinking and problem-solving, and assisting families in caregiver-led skill demonstrations to address developmental deficits (Inbar-Furst et al., 2020). Most EI services follow state-mandated models of delivery (see also CDC, 2023). These models prioritize best-practice guidelines for coaching parents and caregivers through problem-solving and skill acquisition to support their children in achieving unmet developmental milestones. Though

general strategies and guidance can apply to many cases, no two cases are the same. EIs must possess strong soft skills (i.e., listening, empathy, flexibility) to build a trusting relationship with the child's parent or guardian, as these relationships are critical to addressing children's developmental delays (Meadan et al., 2020).

EIs must use creativity, analytical skills, and problem-solving to design a plan of action and activities that parents can implement at home with their children, otherwise known as developmental therapies (Early Childhood Personnel Center, n.d.). Bearing in mind the developmental markers, EIs must also consider various family dynamics integral to successful service provision: the children's own unique characteristics (i.e., developmental goals, temperament, and interests); the parents' characteristics (i.e., personality, learning styles, and parenting styles); and the home environment (i.e., family structure, family values and norms, physical space, and resources). Furthermore, EIs must consider how these factors will be unique to each family being served. EIs must constantly adapt service provision skills, given the variety of families they serve each day. Each case brings its own unique characteristics and needs. Individuals who enjoy teaching in smaller settings and environments that are constantly changing will thrive in this career pathway.

Early Intervention and the Parent/Caregiver-Child Partnership

Emerging research suggests intervention models focused on equipping parents with the skills to foster children's development (e.g., variations of family-guided, routine-based interventions) yield promising results. Parents of children with language delays—as well as those who might show early behavioral indicators of autism spectrum disorder—who employ evidence-based, parent-led interventions demonstrate increased supportive parenting behaviors, which has significant, positive effects on young children's development (i.e., increases in challenging social skills like imitation and making requests; increases in language development; Azzano et al., 2022; Pentimonti et al., 2022). Even more, these positive effects continued long after visits from developmental therapists ended.

Given the permanency of the parent/caregiver-child relationship, EIs must work diligently to equip parents and caregivers with the skills necessary to support children. Particularly for participants focused on communication delays (which comprise about 41% of EI cases; Warner & Lloyd, 2020), practices that foster positive caregiver-EI relationships include building rapport with caregivers, empowering them, and providing educational resources (Medean et al., 2020). Coaching parents in strategies that empower parents' decision-making while simultaneously supporting their children's perspective are especially useful to EIs (Rieth et al., 2022). Parents or caregivers are more engaged with their children when EIs provide sessions consisting primarily of parent or guardian coaching rather than interventions where parents and guardians are expected to learn through observing EIs (Sawyer & Campbell, 2017).

Given that more than half of all infants and toddlers spend most of their day in non-parental care (Zero to Three, 2021), childcare providers serve an integral role in communicating young children's needs and developmental progress on a consistent basis. Therefore, EIs should also approach childcare providers as a stakeholder and partner in service provision (Sheppard & Moran, 2021). As EIs begin their careers it is important they be provided with clear training and coaching strategies to help build the skills for successful interventions. It is especially important for EIs to approach caregivers as an integral partner in children's development (Meadan et al., 2020).

Human Development and Family Science (HDFS) in Early Intervention

While many other fields like psychology or early childhood education may have the skills necessary to understand children's development, a degree in HDFS may provide an advantage over these educational pathways. As detailed above, EIs work primarily with parents or caregivers to impact children's development. Therefore, the background provided through coursework in family dynamics, parenting, program planning and evaluation, and contextual factors that affect a child and family's life provide EIs from HDFS programs with a more nuanced understanding of the family context.

Theoretical Perspectives

Knowledge of children's developmental milestones is central to success in this work. However, an understanding of relationships within families as well as the contextual factors affecting families are essential. The lens of family systems theory and bioecological theory can greatly aid the work of EIs. The following sections will outline both theories as well as provide an in-depth application of theoretical units to the work of early intervention.

Family Systems Theory

Early on, family systems theory was primarily used in therapeutic settings (P. Minuchin, 1985; S. Minuchin, 1974). Unique to this perspective is the idea that those working with families in a therapeutic setting must find a way to be joint members of a family system to discover hidden rules governing family relationship functioning as a whole or between subgroups, such as the parent-child dyad. Forming this type of partnership allows those working with clients or family members to suggest methods for disrupting current patterns of interaction through new adaptive behaviors that would help stabilize family function (S. Minuchin, 1974). In the case of EIs, the stabilization would be parenting behaviors that facilitate children's growth and attainment of optimal development.

Family systems theory could directly enhance the work of EIs, as it helps outsiders understand unique relationship-dynamics within a specific family unit. Family systems theory asserts that individuals cannot be fully understood separate from their family unit (P. Minuchin, 1985, S. Minuchin, 1974). Family functioning occurs in organized interactions that, over time, form predictable patterns of behavior among family members. These organized units are referred to as subsystems, or two or more members of the family that share a joint purpose (P. Minuchin, 1985). This shared purpose helps achieve efficiency in family life. Although many subsystems can be identified in the family, for EI work, the parent/caregiver-child and coparental subsystem (e.g., parent-parent, caregiver-caregiver, caregiver-parent) are of particular interest. The parent/caregiver-child may not warrant more explanation, but the coparental subsystem does. Coparenting occurs when any two or more adults share the responsibility of caring for and raising a child; this relationship is also sensitive to individuals and the family context (Feinberg, 2003; McHale & Irace, 2011). Though parents or caregivers can be present in both parent-child and coparental systems, the dynamics of each subsystem is truly unique. Research demonstrates that each subsystem exerts its own unique influence on children's adjustment (e.g., Margolin et al., 2001; Martin et al., 2017; Schoppe-Sullivan & Mangelsdorf, 2013). EIs can apply the theoretical concept of subsystems by asking parents about their relationships with other caregivers. How might they describe such relationships? Are caregivers all like-minded? Or are there any areas of joint parenting that pose challenges to parenting the target child? It is important to understand the working relationship of joint caregivers.

While parent-child subsystems and coparental subsystems are certainly unique forces in family life, they do affect one another. The spillover hypothesis asserts that when conflict or tension in one

family subsystem occurs—particularly between parents in the parental subsystem—then it can affect the parent-child relationship (Katz & Gottman, 1996). For this work, it is important to keep in mind that parents and coparenting relationships both foster unique influence on children's behavior and attachment (Brown et al., 2010; Cooley & Petren, 2020). The same is true for children; particularly children characterized by negative emotionality may pose unique challenges in parents' ability to parent together (Cook et al., 2009). Spillover is an especially important concept that can empower and guide EI work. It is foundational to help parents or caregivers realize not only that they influence and guide their children, but that children can influence and guide the caregiving decisions of a particular individual. This is seen even very early on and, perhaps, is best illustrated in the influence of infant temperament on coparenting relationships and parent-child relationships (e.g., Davis et al., 2009; Newland & Crnic, 2017).

In families, interactions occur continuously, forming the basis of another important family systems theory concept: rules. Interactions over time emerge into patterned, predictable rules, or the norms that govern behavior. Sometimes parents or caregivers can easily articulate rules. In this case, EIs would note these as explicit rules. There are, however, a fair number of unspoken rules that govern behaviors. These rules are known as implicit rules. Subsystems come to know implicit rules most often indirectly when these rules or norms are violated. All families have some degree of implicit rules that govern both subsystem and family functioning, but subsystems and families function best when the members of the unit rely on more explicit than implicit (S. Minuchin, 1974). Effective EIs must begin by familiarizing themselves with the subsystem's implicit rules and explicit rules that govern behavioral interactions. Equal parts observation and direct questioning can be useful for achieving this goal. What might be the explicit and implicit rules for parents/caregivers have for children? For example, what implicit and explicit messages to do parents send to the child regarding what kinds and amount of emotional expression are acceptable? What about for the parents/caregivers, specifically regarding rules that govern the parent/caregiver-child subsystem? For example, which parent(s) are expected to implement discipline or care? These rules are important for EIs to understand.

Once the rules governing the relationship are understood, EIs can move on to identify patterns of behavior. Most of the EI work will center on using a well-established pattern for embedding intervention work. Over time, rule-governed behaviors are evident in predictable patterns of subsystem interactions. Such interactions foster patterns that become so ingrained in subsystems that those involved may not be able to well articulate these patterns. Patterns are important within families. They provide individual family members with the confidence to make decisions about their behaviors since, over time, individuals understand consequences of decisions that contradict the rules. Families that function with healthy patterns achieve synchrony (i.e., harmonious, predictable, patterns of interactions). When one member of a subsystem experiences difficulty, it is likely to challenge their capacity to interact with members of the subsystem in a way that conforms to their anticipated rules and patterns. Such disruptions may be due to daily stressors or challenges to the individuals or subsystem as a whole. Family systems theory hypothesizes that such difficulties in one subsystem have the potential to spill over into other family subsystems and affect their functioning, thus challenging the family's overall ability to achieve synchrony (Katz & Gottman, 1996). Until these issues are addressed, the family will continue to experience disequilibrium in the form of stress and chaos. For EIs, it is preferable to embed services in well-established patterns for maximum effectiveness. It is helpful to ask parents about regular patterns of parent/caregiver-child interactions. What do parents/caregivers perceive to be regular patterns of behaviors that characterize their interaction with children? As this question can be esoteric and daunting, it may help EIs to assess caregiver's view or role in terms of the levels of warmth and

control displayed. These constructs are integral for supporting children's subsequent development (e.g., Lansford et al., 2014; Moran et al., 2018).

Once EIs understand the internal dynamics of salient relationships, they can help coach parents in developmental therapies that are sensitive and effective for each specific family context. Furthermore, they will be able to help families build the skills to reduce stress and increase competency within the parent/caregiver-child subsystem.

Bioecological Theory

All parents and children live in larger environments that shape their outcomes. Bronfenbrenner's bioecological theory is an additional lens helpful for EI work, especially in combination with family systems theory (FST). Whereas FST provides the content for understanding and working within families' relationship dynamics, bioecological theory provides EIs a schema for identifying salient environmental factors that might affect family relationships. When developing service plans, EIs ought to consider how these environmental factors affect both the parent/caregiver-child relationship and the parent/caregiver-service provider relationship.

Bronfenbrenner (1979) believed that to truly understand an individual, one must take into consideration the environmental systems that shape daily life. Like nested dolls, individuals live situated within layers of interdependent, influential environments (e.g., family, local community, society). Beginning with the most proximal environments an individual actively participates in, or microsystesms, Bronfenbrenner noted that multiple influential environments from interactions among the microsystems (e.g., mesosystems), to those within neighborhoods and social institutions such as schools (i.e., exosystems), all the way to cultural norms and forces like poverty or pervasive gun violence (i.e, macrosystem), and historical factors like pandemics (e.g., chronosystems) simultaneously shape an individual's life course.

These sources of influence can be both covert and overt (Bronfenbrenner, 2005). For example, family members may be actively trying different strategies recommended by friends or teachers to support children's development (i.e., overt). Alternatively, parents may be responding to children's developmental challenges in a haphazard manner, with the intention of reactively responding to behaviors (e.g., covert). In this way, the lack of a proactive, strategic plan for supporting children's development shapes the children's environment in a different way than a proactive, albeit ineffective, implementation of strategies. An EI must consider how these environments impact service delivery. Though macro-level systems influence daily life, Bronfenbrenner believed the micro-level contexts with which individuals more directly interact are most malleable due to the dynamic ways participants within those systems interact with one another. In more proximal systems, each member possesses the ability to assert influence on one another and on the system as a whole. Great change—positive or negative—can occur as the proximal environment adapts.

Prior to examining the environments, it is particularly important that EIs acknowledge the influence of the individual on a system. What salient personality characteristics might impact an individual's openness and follow-through with intervention services? What might characterize parents' or guardians' learning styles? How might EIs connect with unique personality traits of each participating family member to build proper rapport for service delivery? What is each parent's or guardian's educational level? What are their beliefs about parents' role in their children's development? Understanding the individuals with whom EIs will be interacting is crucial.

Moving beyond the individual, Bronfenbrenner acknowledged that each of us is most likely influenced by factors in our direct environments, or microsystem. Microsystems can be experienced differently depending on the individual, so it is important for EIs not to assume that understanding the microsystem from the parent's or guardian's perspective will be synonymous for understanding the child's perspective of the microsystem. Though children may not possess capabilities for changing the structure of microsystems equivalent to adults, they still carry agency within microsystems. So, understanding a shared microsystem from both the parent/caregiver and child's perspective is crucial.

For parents and guardians, salient microsystems that affect their work with EIs include workplace environments (e.g., relationships with colleagues, work schedules, and work-related stress, to name a few) and relationships among family members (e.g., stress and eustress from relationships with a partner, relations and responsibilities for a child or children not involved in EI, extended family outside of the immediate household, and so forth). Both forces can greatly impact parents' or guardians' abilities to receive and facilitate intervention services for the target child. For children, salient microsystem factors may include the physical home or childcare environments as well as other relationships with a child or children in the home. What benefits and limitations might the layout and structure of the child's primary spaces propose for developmental therapies? What mood characterizes the parents', guardians', or childcare providers' interactions with the child? Children's physical environments and relationships within those environments are important forces that impact service plans. These should be a primary source of consideration, given that developmental therapies are embedded within existing daily routines.

The final systems EIs would be wise to account for in service plans include the exosystem, macrosystem, and chronosystem. The exosystem includes larger-level systems that individuals may not share direct influence with but can none the less influence daily life (Bronfenbrenner, 1979). This can include interactions with larger support systems, such as social services or other support programs, particularly for families in poverty. What other resources do parents connect with? Could there be other resources that parents or caregivers are not currently involved with that might help improve the microsystem, such as support services or therapies for parents, caregivers, and family members? Exosystems can also include microsystems for the caregiver or parent that indirectly influence children, such as the work demands of parents or caregivers.

Additionally, the macrosystem (i.e., shared cultural influences such as the norms that guide parent-child behaviors), along with the chronosystem (i.e., specific time-period influences on daily life, be they cohort or developmental) shape parents' beliefs and behaviors. Though these larger levels of influence are much less malleable than microsystems, they ought to be considered. How does race, ethnicity, and culture influence a family's functioning, strengths, and challenges? What cultural parenting trends or societal trends impact parents' and caregivers' interactions with their children? How might these relationships change over time, as the child changes developmentally? Such questions provide a rich understanding of the context encapsulating EI work.

Scenario Application

Students in Human Development and Family Science are uniquely trained to understand how the family context uniquely impacts the work of early interventionists, especially using the lens of family systems theory and bioecological theory. The following section provides one unique case scenario from early intervention work, with all names changed for anonymity. Then, the unique contributions of each theoretical perspective in enhancing the work of early intervention will be discussed.

Case Study: Ariel and Maria.

Lisa, a developmental therapist working with an early intervention team, knocks on the door of the apartment of Maria (a divorced, single mom) and her daughter, Ariel, who is 2.5 years old. Lisa first met Maria when she was referred to an Early Intervention office following Ariel's two-year check up with her pediatrician. After an initial assessment, Ariel met the threshold for services due to observed language and socio/behavioral delays. Though not currently together, both parents attended the first meeting to discuss Ariel's IFSP. Working together, the service coordination team (who in this case consisted of a service provider and an EI) developed an IFSP for Maria and Ariel's father to follow with Ariel. The team agreed that therapies would take place at Maria's home, given that Ariel spends the majority of her time with Maria. Ariel's father desired to be involved, too, and Maria felt this was in Ariel's best interest. Though Ariel's father would support their work, therapeutic services would be delivered at Maria's house. Ariel spends at least one day a week at with her father, but visits do not typically involve an overnight stay. Maria agreed she would communicate any relevant information to Ariel's father, and he would try to coordinate his days off work to coincide with at least two sessions: one midway through the six-month service provision and another at the six month mark when the IFSP is reevaluated by service providers.

Upon Lisa's arrival at her third visit with Maria, she checks in with Maria on the implementation of her IFSP with Ariel. Maria shares the goals set for labeling and elaborating on objects during play is going well, but she still has concerns regarding Ariel's spoken language. Maria's impression is that Ariel is selectively engaging in the therapies and only seems to repeat certain words, despite Maria's best efforts to carry out the demonstrated developmental therapies.

It appears to Maria that in their play, Ariel is more fascinated with objects than with using language to describe the objects. Lisa listens patiently, and then observes Ariel and Maria together. She notices that Ariel does not make eye contact with her or Maria when either of them solicit single-word descriptions that align with IFSP's goals to build both the receptive and spoken vocabularies (e.g., toy, block, red). Instead, Lisa observes Ariel playing with several different types of toys; Ariel's favorite thing to do is to line them up. She stays focused for about three minutes at a time and then goes on to another toy or becomes very active, jumping and climbing on the living room furniture and running up and down the hall. Maria expressed concern for Ariel's safety as she didn't seem to have any fears about jumping and climbing on the furniture in ways that could be considered dangerous. Lisa asks Maria about how she gets Ariel's attention. She says she has to hold Ariel's hands/arms to get her to stop and do what she wants her to do. Lisa asks Maria if she has seen Ariel respond to the phone ringing or a knock at the door, and she says, "No."

Since Lisa has become more familiar with Maria, she's noticed Maria has been more open about additional concerns for Ariel's health. Maria continues by revealing that she is also concerned about Ariel's eating habits. This concern was not shared during the initial development of the IFSP. During the day, Maria spends lots of time with Ariel. Nervous that Ariel is not eating enough, Lisa finds herself constantly offering food to Ariel throughout the day to make sure she eats. Though eating is challenging, Lisa does note that Ariel takes her to the kitchen when she wants something to drink. In the evenings, Lisa works a second shift at home, full-time for a call center. As a result, Ariel does not have a regular sleeping routine since Maria begins work before Ariel's bedtime. So, Maria allows Ariel to go to bed and fall asleep whenever it works best for her. Though Ariel has her own bedroom, she generally sleeps in her mother's bed or, at times, falls asleep on the floor or couch in the living room. In those cases, Maria does not move Ariel to the bed once she falls asleep. She lets her sleep wherever she likes.

Theory Application

After listening and observing Ariel and Maria, Lisa has lots of questions about how to assist Maria. Her understanding of family systems theory has already informed her assessment. Beginning with the family unit, Lisa asks Maria about the rules she has for Ariel. It is clear that Maria desires a strong bond between parent and child—one purpose of the subsystem—though they currently may not be classified as a cohesive parent-child subsystem. Lisa's familiarity with the co-parental unit leads her to ask Maria questions about the other caregivers in Ariel's life. Maria reveals that Ariel's dad has joint custody and takes Ariel with him on a regular basis. Lisa's knowledge of the spillover hypothesis leads her to ask Maria about the degree to which she and Ariel's father agree on and enforce rules. Though he seemed engaged at the meeting, Lisa was curious to know how Maria felt he was doing with service provision and support of Ariel. Maria reveals that she and Ariel's father have an amicable relationship. They were not a good match romantically, but they remain friends and are able to agree upon shared rules for Ariel. They work well together when caring for Ariel, ensuring that the environment, patterns, and routines are the same for Ariel regardless of residence. He has used some of the developmental therapies in play with Ariel but has found himself frustrated with concerns similar to Maria's. From Lisa's perspective, it seems both parents are earnestly seeking to provide what is best for Ariel. Knowing that Ariel benefits from high quality parent-child relationships and coparenting relationships helps Lisa know that both parents are invested in Ariel and her development. These are the ideal parent-parent and parent-child subsystems for anyone in early intervention. It makes building rapport and facilitating developmental therapies seamless across both home environments. Additionally, Lisa hopes that such coordination means the family system is likely characterized by more synchrony and harmony, which is hypothesized to be better for all involved. Lisa knows that Ariel's relationship with her parents will be an asset.

Bronfenbrenner's bioecological theory provides additional insight for early intervention work. Starting with the individual, Lisa knows that there may be individual factors affecting Ariel and her interaction with various systems. Lisa is particularly tuned into Maria's concerns for Ariel's individual behaviors that her mother suspects are atypical. Furthermore, Maria knows her child's interests and behaviors on an everyday basis. This information about Ariel's unique interests and challenges can also provide Lisa with important insight for which of the family's existing items and spaces can best leverage Ariel's interest in developmental therapies. So, Lisa will want to think about the current context with an eye towards the future context for which she is preparing Maria to support Ariel in so that she might thrive.

Keeping in mind these individual-level factors, Maria also knows how to examine the factors affecting the family context. In Ariel's case, her family microsystem is the environment where Ariel spends almost all her time. Given that Ariel's parents live in two different households, Lisa considers the mesosystem influence on Ariel's developmental therapies (i.e., the interaction between both household environments). How might she support both parents in carrying out Ariel's developmental therapies? Fortunately for Lisa, her understanding of family systems theory, discussed earlier, helps strengthen her understanding of how the mesosystem impacts Ariel. She knows consistent goals and rules in the coparenting subsystem promote cooperation across the two residences where Ariel spends most of her time. Even so, she asks Maria if it might be possible to schedule an additional visit with Ariel's father at his home. Lisa knows the importance of the mesosystem influence.

Lisa also knows that Maria's work, especially her work schedule, is a primary exosystem influence. Though Ariel has no control of her mother's work, the demands for Maria's call center job greatly affects the structure of Ariel's day. It determines when Maria is available to spend quality time

with Ariel as well as the energy Maria may have to expend on parenting duties, given her work is primarily at night. It is likely Maria does not get adequate sleep, in addition to the influence her work has on Ariel's sleeping habits.

When considering children's exosystems, EIs could start by assessing whether there are family resources or services accessible to families of which they were not aware. For example, Lisa might recommend financial supports (e.g., WIC, food pantries) or free or low-cost childcare services (e.g., Head Start, grandparents) available in the community. If those resources or services are not viable options, Lisa also knows that Maria needs to work, and it is unlikely that this work schedule will change. When working with Maria, she needs to take careful consideration of this scheduling limitation while coaching Maria through developmental therapies that target behaviors identified on the IFSP. Lisa must carefully observe the physical structure of the home and the daily routines established. The work of EIs requires they find ways to embed developmental therapies in pre-existing routines. Lisa will want Maria to identify ideal times to implement therapies when transitions already exist and occur. It will be important that brainstorming when and how to embed developmental therapies within existing routines occurs collaboratively, given that Lisa recognizes the constraints of the environment, but Maria is truly the active participant in the microsystem that shapes Ariel's daily flow of life. In this case, collaboratively, Maria and Lisa work on Ariel's bedtime routine and embedding developmental therapies when Ariel requests drinks, a common, child-led routine that occurs frequently at both houses.

Though Maria did not raise concerns regarding the macrosystem, these influences certainly warrant discussion. Recent literature details that societal forces greatly shape the delivery of EI services. Macrosystem forces such as poverty, the COVID-19 pandemic, racial unrest, and rampant gun violence all bear consideration. During the pandemic, for example, there was much concern regarding the delivery of early intervention services, especially as childcare centers closed, and children's frequency of physicians' visits declined; both avenues are frequent sources of referrals for early intervention services (Warner & Lloyd, 2020). During the pandemic, Maria may have changed her parenting beliefs, especially regarding what constitutes a safe environment for Ariel. Lisa may benefit from asking Maria where Ariel engages with others? In what outside environment or situations does Maria feel most comfortable with Ariel? Similarly, larger macrosystem factors such as poverty, racism, and access to affordable services may create barriers to service provision. How might Lisa help Maria and Ariel feel safest within their current environment?

Though debate remains regarding the efficacy of home-based versus virtual service delivery, some research does suggest virtual services require families participate in more family-centered practices while affording EIs the ability to learn from outside observers—whose presence may be less intrusive in a virtual environment (e.g., Krick Oborn & Johnson, 2015; McCarthy et al., 2022). This requirement for technology, though, may be a further barrier for some families' participation, such as those who cannot afford reliable internet or devices. Conversely, virtual services may be able to help aid in EI work in rural areas of the United States, where service providers spend much of their day traveling to meet clients. It is anticipated that much discussion will evolve regarding the benefits and challenges for virtual service provision for all individuals involved (Meadan et al., 2020). Lisa would be wise to develop the skills for virtual service facilitation while also participating in ongoing trainings to hone her own coaching skills.

Finally, Maria tells Lisa she is looking forward to Ariel's transition to a formal schooling environment. This represents her anticipation of the chronosystem influence, particularly for her daughter. She knows that this will bring its own challenges but is excited for Ariel to have the opportunity to socialize with other children. Bronfenbrenner's theory is useful for considering the

various contextual forces that influence Ariel's and Maria's family microsystem. These forces are intertwined—simultaneously shaping the interactions of everyday life. Though we cannot separate them, it is important to keep in mind that early intervention work follows the parents' lead. The parent/caregiver-child relationship is key, and thus most of the work may occur in the child's family microsystem, while considering the individual, exosystem, macrosystem, and chronosystem influences on this context. Lisa will need to keep in mind the resources that Maria has available, her work schedule, and her time to work with Ariel. Fortunately, Maria is very invested in learning developmental therapies to help Ariel. In this case, Lisa would keep in mind the various microsystem factors of influence while prioritizing with Maria which aspects of Ariel's IFSP they should work on next. Lisa's keen consideration of the resources and influence in the family microsystem will greatly aid her work with Ariel and Maria.

Discussion

The work of early intervention is vital, especially given the anticipated increase in service provision from emerging global scholarship because of the COVID-19 pandemic (Kokkinaki & Hatzidaki, 2022; Wu et al., 2021). Individuals trained in Human Development and Family Science programs possess the rich, meaning-making tools of family systems theory and bioecological theory. Both theoretical perspectives are important for early intervention work because the context of developmental therapies is the child's natural environment. As an outsider, you must be able to identify routines that are implicit and explicit, untangle the dynamics of a caregiver-child or caregiver-caregiver relationship, and consider how the environment shapes developmental behaviors and their subsequent developmental trajectories. Working within the strengths and confines of the family system is best addressed with these theories, as they provide a lens through which to examine and make meaning of family dynamics.

Limitations

To be sure, these theoretical perspectives present some challenges. First, both theories do not provide a clear temporal sequence for understanding families. Both theories are non-linear. This can pose some challenges when EIs and parents/caregivers are working to brainstorm techniques for learning or determine the process for addressing the needs articulated in the IFSP. Furthermore, neither theory provides insight on the process for behavioral change, nor do they articulate specific progressions of skill development. Understanding processes for behavioral change and skill development are integral to effective service delivery.

Despite these limitations, family systems theory and bioecological theory merit careful consideration and application when working in early intervention settings alongside theories that articulate specific behavioral change. The authors felt that—as early interventionists gain more experience with developmental therapies at trainings, professional development workshops, or through practice—they will quickly acquire a professional toolbox for developmental therapies that provide a clear process for motivating behavioral change. But family systems theory and bioecological theory both provide unique insight into seen and unseen dynamic forces that influence development. Even the best therapies will fail to be effective if they are not context specific.

Conclusion

Early intervention is a dynamic, meaningful career field. For individuals with backgrounds in Human Development and Family Science, the training and preparation received from this disciplinary heritage provides a rich understanding of context in this important work. Utilizing family systems theory

and bioecological theory, the role of important family subsystems and environmental factors in shaping developmental therapies is better understood.

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