Inclusive and Family-Centered Infant-Toddler Care (iFAM-iTcare)

Research Project:

Examining Perceptions of Early Intervention Services in Infant-Toddler Care Settings across Diverse Urban Neighborhoods

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Infancy and toddlerhood have been identified as critical periods of rapid growth and development, which lay the foundation for an individual's acquisition of age-appropriate skills across childhood (Institute of Medicine and National Research Council, 2105; Shonkoff & Phillips, 2000). Research also shows that poverty at an early age can be especially harmful and affects children's growth and development; this is especially relevant in New York, as 25% of infants and toddlers and their families in New York State live below the federal poverty level, and 11% live in extreme poverty (National Center for Children in Poverty, 2015). It is also of particular importance to infants and toddlers at risk for developmental delays or disabilities, as identifying and addressing delays or disabilities in the first years of a child's life increases the likelihood of the effectiveness of potential future interventions, decreases the likelihood of the need for later intensive services, and provides supports to families that improve the quality of parent-child relationships (Carta & Kong, 2007; Dunst, 2007; Guralnick, 2005).

In 2014, New York City's Department of Education Division of Early Childhood Education (DOE DECE) began to provide access to free, full-day, high-quality pre-kindergarten to every four-year-old, regardless of family income. In 2017, New York City DOE furthered its commitment to free, high-quality early care and education with the launch of 3-K for All for even younger children. Also, the EarlyLearn programs in NYC are now managed by the NYC DOE to create a more unified birth-to-five early care and education system in New York City. New York City's Administration for Children's Services (ACS) and the NYC DOE oversee a system of contracted early care and education. EarlyLearn NYC encompasses three types of Early Childhood Education (ECE) programs: home- and center-based infant and toddler care as well as Early Head Start/Head Start, while additionally, ACS distributes vouchers to qualified

families to pay for early care and education from approved providers. Moreover, the Department of Health and Mental Hygiene Bureau of Child Care licenses early childhood programs that operate in NYC, regulating the qualifications of leaders and educators.

In New York City, the New York City Department of Health and Mental Hygiene (DOHMH) Bureau of Early Intervention (BEI), oversees the EI Program in NYC, which provides service coordination, evaluation and services to children birth to three years of age with a confirmed disability such as Cerebral Palsy and Autism Spectrum Disorders, or with an established delay in physical, cognitive, communication, social-emotional, and/or adaptive development. At the same time, however, in New York City there are disparities in access to Early Intervention (EI) services for children from neighborhoods of low socioeconomic status and children from some racial and cultural communities (New York City Department of Health and Mental Hygiene, Bureau of Early Intervention, 2019, November).

Currently, the Department of Education Division of Early Childhood Education and the Department of Health and Mental Hygiene Bureau of Early Intervention jointly aim to increase the quality of care for infants and toddlers in center-based inclusion settings, and to ensure that best practices for the assessment and care of young children are adopted. When the NYC DOE expanded the Division of Early Childhood Education in 2018 to include programs for families with children birth to three years of age, their initial pilot coaching project for family childcare programs targeted those in under-resourced communities, such as the South Bronx, Brownsville and the Rockaways, to learn more about the process or quality of family childcare providers' engagements and supports to infants and toddlers and their families in these neighborhoods (full oversight of EarlyLearn programs across the city began July 2019).

In addition, the NYC DOHMH Bureau of Early Intervention aims to increase access to early intervention services for infants and toddlers with developmental delays or disabilities among racial groups and within neighborhoods where referral rates are unexpectedly low, particularly Black and Afro-Caribbean families from low income communities, such as Brownsville and East Flatbush (NYC Bureau of Early Intervention, 2019, November). For instance, in NYC fiscal year 2017, the NYC DOHMH BEI received approximately 33,050 new and re-referrals throughout NYC's culturally diverse five boroughs, which is about 10 percent of all children under three years old in New York City. Of that number, only 17 percent (n=5,684) of children identified as Black were referred/re-referred to EI, when 20.8% of the birth to three population is Black. Also, of the 33,226 children who received general EI services, only 15% (n=4,909) of children identified as Black received services (excluding evaluation, service coordination, assistive technology and transportation).

There is little systematic data available to begin to conceptualize the underlying causes for these low rates. Therefore, there is a pressing need to understand infant-toddler educators and leaders within these communities regarding their knowledge about Early Intervention and child development (typical and atypical), as well as their beliefs and perceptions about EI services. In addition, it is crucial to generate more information about their views concerning access and barriers to inclusive interventions of infants and toddlers with disabilities in the classroom, and engagement in family-centered care with families. Since data on current practices and levels of knowledge were not available to guide the development of interventions tailored to address these issues, our study generated new data to help understand and identify the range of professional development support needed in the field from the perspective of infant-toddler educators themselves as well as program and policy implications.

This study was undertaken by researchers from Brooklyn College at the City University of New York in partnership with the New York City DOE DECE and DOHMH BEI. A key goal of this research project was to address gaps in the literature as well as BEI's documentation of racial inequities in early intervention services by obtaining data from the voices of predominantly Black and Afro-Caribbean infant-toddler educators and leaders serving families in under-resourced communities regarding their knowledge and experiences with early intervention. A second goal with data gathered from infant-toddler educators and leaders is to provide early childhood higher education programs as well as DOE and DOHMH administrators with an understanding of how infant-toddler educators and leaders in center-based and family childcare settings view variation in children's development and perceive barriers to accessing services that address disabilities and delays in infant-toddler development. Finally, data on infant-toddler educators' current levels of knowledge and practices with children receiving or potentially needing EI will guide the development of interventions tailored to address these issues and identify the type of professional development and training or policies needed to better support young children with delays or disabilities from the perspective of ECE educators themselves.

2. Rationale based on Literature Review

As a large proportion of infants and toddlers living in urban settings have working parents, with 62% of mothers with infants working outside the home (U.S. Department of Labor, 2017, April), more than half of the 12 million infants and toddlers in the U.S. spend a significant amount of their time in non-parental care settings (Mamedova, Redford, & Zukerberg, 2013). Thus, early care and education (ECE) providers are often the most likely resource to observe and possibly to initially identify and refer children at risk for developmental delays or disabilities to

receive early intervention (EI) services, as well as to educate and care for these children in inclusive settings and to support their parents in this process.

Early Childhood Special Education/Early Intervention: IDEA, Part C

The 1986 passage of Public Law 99–457 (Individuals with Disabilities Education Act; IDEA) through its section Part H (now Part C) required children with disabilities from 3 to 21 years of age to be provided educational services in the least restrictive environment. It also resulted in states receiving federal funding to develop early intervention systems and services for infants and toddlers with disabilities and their families (Odom, Buysse, & Soukakou, 2011). As a result of this federal mandate every infant, toddler and young child with a disability has the legally-protected right to be cared for and educated in their natural environment with their typically developing peers. In 2011, the U.S. Department of Education Office of Special Education Programs reported that approximately 50% of preschool children with disabilities are included in early childhood education settings for part of the day or all day (Odom et al., 2011). Further, an important element of Part C services [IDEA, Part C §303.26]: is that intervention is "provided in *natural environments* that are settings that are natural or typical for a same-aged infant and toddler without a disability, such as home and community settings." Therefore, natural environments include routine activities in the family's home (e.g., playing, bathing, eating, dressing, grocery shopping) and routine activities in the childcare programs (e.g., circle time, snack, story time, etc.), and community activities that are usual and characteristic for each individual child and family. All early childhood teachers likely have children with a range of developmental delays and learning needs, including disabilities, already in their classrooms. In NYS, 4% of infants and toddlers received Part C early intervention services compared to 3% in the nation (Zero to Three, 2015). In NYC, there has also been a greater push for inclusion in

early childhood education in both EarlyLearn programs and universal Pre-kindergarten classrooms. As childcare centers become more inclusive, it is essential that professionals be prepared at both the preservice and in-service levels to better support the development and learning of young children with special needs and partner with their families (Stayton, 2015).

Yet, little information exists on ECE providers' and leaders' knowledge of or experiences with early intervention or including infants and toddlers with delays in their programs. Knowledge of child development and of best practices for children at risk for delays or disabilities among the ECE workforce are critical to increasing the quality of care for the youngest children in EC settings and for the early identification and support of children with disabilities, but reports suggest there is a need to enhance these capacities within the workforce (Bromer & Porter, 2019).

Best Practices in Early Intervention: Family-Centered practices

A workgroup of national early intervention leaders gathered together in 2008, under the direction of the Federal Office of Special Education Programs (OSEP) and came to consensus that the over-arching purpose of family-centered early intervention services provided under Part C of IDEA should provide supports and resources to assist family members and caregivers (infant-toddler educators) to enhance children's learning and development through every day learning opportunities (Workgroup on Principles and Practices in Natural Environments, OSEP TA Community of Practice: Part C Settings; 2008, February). In addition, they identified seven essential EI principles, which are the focus of the New York City Bureau of Early Intervention Program:

1. Infants and toddlers learn best through every day experiences and interactions with familiar people in familiar contexts.

2. All families, with the necessary supports and resources, can enhance their children's learning and development.
3. The primary role of a service provider in early intervention is to work with and support family members and caregivers (infant-toddler educators) in children's lives.
4. The early intervention process, from initial contacts through transition, must be dynamic and individualized to reflect the child's and family members' preferences, learning styles and cultural beliefs.
5. Individualized Family Service Plan (IFSP) outcomes must be functional and based on children's and families' needs and family-identified priorities.
6. The family's priorities, needs and interests are addressed most appropriately by a primary provider who represents and receives team and community support.
7. Interventions with young children and family members must be based on explicit principles, validated practices, best available research, and relevant laws and regulations.

Family-centered best practices. Researchers have identified best practices for infants and toddlers, especially those with disabilities, as based in natural learning opportunities within every day experiences (Campbell, 2004; McWilliam, 2010). This includes family-centered practices that incorporate cultural and linguistic diversity, so educators engage in practices that are based in routine activities and are part of children's natural environments (e.g., the materials typically used by the family during their routines). Researchers across the country have identified family-centered, best practices under different names: Activity-Based (Pretti-Frontczak & Bricker, 2004); Participation-Based (Campbell, 2004); Routines-Based (McWilliam, 2010); and Learning Opportunities (Dunst, 2000). The New York City Bureau of

Early Intervention refers to family-centered best practices as ***Embedded Coaching (EC),*** which consists of two main elements:

1. **Embedded Interventions** (Dunst, Hamby, Trivette, Raab, & Bruder, 2000; Keilty, 2010; Keilty, 2013): Interventionists create effective and individualized strategies with caregivers that respect the family's style and culture, while supporting the child's functioning in routine activities by integrating the family information from observations and conversations with the caregiver; and enhancing the child and caregiver's capacities and strengths; and identifying and integrating the parents' concerns, priorities, resources and their daily routine activities into service provision. By embedding interventions within routine activities, children are provided many natural and meaningful learning opportunities throughout the day with the significant people in their lives. In this way, learning is both relationship-based and routines-based and children get many chances to practice between EI sessions.
2. **Collaborative Coaching** (Hanft, Rush, & Shelden, 2004; Rush & Shelden, 2006; 2012): Interventionists utilize coaching approaches like joint planning, observations, action, feedback and reflection with the caregiver to support caregivers in creating and learning effective strategies to support their children's functioning and development during daily routines. The interventionist's role is to enhance the parents and caregivers' capacity, competence and confidence in helping their child learn.

High quality educators' interactions promote children's learning trajectories

Infant-toddler educators and leaders play an analogous role to parents in how their interactions with children are related to children's skill development. Just as sensitive, responsive

parent-child interactions have a strong relation to the development of children's cognitive, language, social-emotional, and motor skills (Tamis-LeMonda, Shannon, Cabrera, & Lamb, 2004; Shannon, Tamis-LeMonda, London, & Cabrera, 2004; McFadden and Tamis-LeMonda, 2013); so the nature of teacher-child interactions have the potential to play an important role in shaping the emergence of these skills in children beginning in infancy. Strengthening early care and education providers' knowledge of developmental science and developmentally appropriate practice in the meaningful contexts of their everyday interactions with children with and without disabilities may promote children's growth across developmental domains (Copple & Bredekamp, 2009; Institute of Medicine and National Research Council, 2105).

Overcoming challenges to provide equitable, high-quality education and care to infants/toddlers with disabilities in urban contexts

Although there is a breadth of research on the role of home and classroom environments in shaping children's educational trajectories, there is a scarcity of scholarship that couples the methodologies and expertise of education and developmental science to build solutions to problems of educational inequities and bridge socioeconomic disparities in academic achievement beginning in infancy (Institute of Medicine and National Research Council, 2105). Infant-toddler educators in urban contexts are increasingly faced with the challenge of addressing cultural, linguistic, and economic diversity in their classrooms as well as integrating infants and toddlers with developmental delays and/or disabilities into their classrooms. These challenges are compounded by the limited amount of training infant-toddler educators receive on developmental science and parenting, as well as the scarcity of research that exists on cultural specificity in parent-child communication that can directly inform teaching practices (Institute of Medicine and National Research Council, 2105). This line of work is especially important given

the demographic changes in the United States more broadly, as well as the increasing number of children who live in urban contexts, with a growing number of children from dual language homes. Based on 2000 census, 27 percent of children under age 6 come from homes where at least one parent speaks a language other than English and in NYC almost 42 percent of the public school-age population reports speaking a language other than English at home (New York City Independent Budget Office, 2015).

While many studies have profiled the negative influences of urban poverty on children's development, research has gained little traction in understanding and addressing contexts of poverty, particularly in terms of identifying and leveraging effective pathways to support early foundational skill development among very young children that will support later academic achievement and thereby have the potential to buffer children from the adverse effects of poverty. Also, urban public programs and services aimed at supporting child development and addressing the challenges posed by poverty face implementation issues and a lack of coordination of these efforts across the contexts in which young children live. This research project responds to these related challenges addressing the needs of infants and toddlers with disabilities from urban, low-income households. Specifically, socio-economic disadvantage is linked to a range of disparities in the school-readiness skills of young children growing up in urban poverty in comparison to their more advantaged peers, with evidence of this "achievement gap" emerging as early as 18 months of age, which widens as children grow older (Fernald, Marchman, & Weisleder, 2012; Heckman, 2006). Also, while early childhood (EC) programs aimed at providing supportive experiences for young children from low-income homes have demonstrated promising efforts to reduce these gaps (Love, et al., 2002), the majority serve children averaging 4-years-of-age. Further, children birth to 3 years of age attending full-time

center-based or home-based EC programs made the least gains, pointing to the need for additional program improvements that enhance the quality of everyday experiences during the first years in both contexts (Campbell et al., 2012; Love, et al., 2002; Schweinhart, 2013).

Relatedly, early childhood professionals properly trained to identify and support infants/toddlers with developmental delays or disabilities in the first years of a child's life increases the likelihood of the effectiveness of interventions, decreases the need for later intensive services, and provides supports to families that improve the quality of interactions between parents and children across socioeconomic levels (Carta & Kong, 2007; Dunst, 2007; Guralnick, 2005). At the same time, however, there are inequalities in access to services and in the quality of education and care infants and toddlers with and without disabilities receive in EC programs and from EI providers in neighborhoods of low SES and culturally diverse communities (Love et al., 2002; Schweinhart, 2013; NYC Bureau of Early Intervention, 2019). Concurrently, ECE educators with a commitment to working in EC programs with the youngest children and located in low-income communities, like Early Head Start, and local childcare centers, have typically been exposed to only superficial training in child development, which lacks an understanding of typical and atypical development, parenting and family-centered practices or how cultural context and everyday experiences influence the emergence of young children's developmental skills (Institute of Medicine and National Research Council, 2015). In other words, in tandem with the necessity of addressing the gap in preschool-readiness skills for urban, disadvantaged infants/toddlers, there is a need to bring current advances in developmental science to bear in training infant-toddler professionals who engage with these children and their families daily. Research in developmental psychology also sheds light on the cultural and contextual factors that shape parenting and identifies the unique strengths that children and

families from different communities also bring to center-based contexts (Tamis-LeMonda, Song, Leavell, Kahana-Kalman, & Yoshikawa, 2012).

Research Aims and Questions Addressed by iFAMiTCare

In summary, while both NYC DOHMH and DOE aim to increase the quality of care for infants and toddlers with and without disabilities in family and center-based inclusion settings, and to ensure that best practices for the assessment and care of young children and engagement in family-centered practices are adopted, comprehensive data is not currently available which would allow for systematic identification of characteristics of child care settings or educators that support best practices regarding infant-toddler care and integration of services for children with delays in inclusion settings.

Specifically, using mixed methods (qualitative and quantitative) the current study sought to also address gaps in an understanding of the knowledge, beliefs, and practices related to Early Intervention, including inclusion and family-centered practices and child development, as well as perceived barriers to access of EI services among racially and ethnically diverse early care and education (ECE) providers working in diverse, urban infant-toddler care settings, with a focus on communities serving Black and Afro-Caribbean families/predominantly three Brooklyn neighborhoods where there are low rates of referral to Early Intervention and disparities of EI services.

Therefore, the following research questions were addressed:

1) What do ECE providers know about child development (typical and atypical), family-centered practices and Early Intervention?
2) What are ECE providers' beliefs about barriers and opportunities for children at risk for disabilities and developmental delays to receive EI services?

3) What practices do ECE providers engage in to support access to EI services and to work with young children with delays or disabilities and their families?
4) How do ECE providers perceive their work and experiences with children and their families, and with EI providers; what do they identify as areas of need in their practice that would support fostering inclusive early childhood education and strengthen their work with families?
5) How do ECE providers' knowledge, beliefs and practices differ across contexts of care (types of EC settings and educator characteristics)?
6) How do race, culture, socio-economic status, language, and neighborhood intersect to shape ECE providers' knowledge, beliefs, and practices?

3. Research Design

Method

Sample and Participants

Study participants included 32 infant-toddler educators and 8 site leaders from approximately 30 early childhood (EC) sites across several high-need neighborhoods in Brooklyn with large populations of native-born African American families and West Indian/Caribbean families and where rates of referral to EI are unexpectedly low. Study recruitment aimed to identify sites and participants across high-needs neighborhoods, and to reflect sample representation from both family childcare providers and center-based childcare providers (including EHS). Early care and education (ECE) teachers and administrators/site leaders were recruited into the study using a variety of methods including flyers, emails, phone calls, and study presentations made at childcare provider network meetings. Participants who

responded to contacts made through flyers, emails, or phone calls, or who provided their contact information during network meetings, were contacted by research assistants to schedule either in-person or telephone interviews.

The 40 ECE educators and leaders targeted in the study come from ethnically, racially and linguistically diverse backgrounds (primarily African American, Caribbean and Latino), educate and care for infants and toddlers (with and without disabilities; in family childcare or center-based early childhood programs/EHS), and are primarily working in Brownsville, East Flatbush, Bedford-Stuyvesant, and surrounding neighborhoods. We targeted ECE providers working in these communities since they have high levels of poverty, tend to be under-resourced and have high proportions of African American and Caribbean families who often lack access to quality early or EI services.

Of the 40 participating ECE providers described in this report, the majority were Black/African American (88%), with 67% of Black participants identifying as West Indian/Caribbean. The remainder of ECE providers mainly identified as Asian (10%; including Pakistani, Indo-Guyanese, and other East Asian), with 2% identifying as Caucasian. All ECE providers interviewed spoke English, with 23% also reporting proficiency in another language, which included Spanish, French, Haitian/Creole, Tagalog, and Urdu. All teachers identified as female, and they ranged in age from 25-34 years to 75 years or older, with three-quarters of the sample reporting they were between 25 and 54 years of age.

The majority of ECE providers, 59%, completed a bachelor's degree, with very few (2%) having only graduated from high school or received their GED, 14% reporting completing an associate's degree, 23% completing a master's degree and 2% completed a doctorate or the equivalent. Sixty-three percent of the sample reported that their highest degree was in Early

Childhood. Also, 38% of ECE providers reported that they were working on a higher degree, and all of these providers reported their degree-in-progress was in Early Childhood. Providers' years spent working in the Early Childhood field varied widely, from less than a year to 30 years in the field (M = 7.95, SD = 9.06). The majority of ECE providers were working full-time (90%), with some working less than 40 hours per week (10%). Most ECE providers in the sample worked in center-based settings (82%), with a portion of the sample working in or running family childcare homes (18%).

ECE providers included in this study served populations of children and families who were majority Black/African-American, with 71% reporting that the children and families they served were 80% Black/African-American or more. Of providers reporting that more than half but less than 80% of the families they served were Black/African-American, two-thirds of them estimated that the other children and families they served were primarily Latinx, with a third estimating they also served Asian and Middle Eastern children and families.

Procedure

The iFAMiTcare project used mixed methods (quantitative and qualitative)—qualitative interview/focus groups and a brief survey—to generate data on infant-toddler educators' and leaders' knowledge of child development, family-centered practices and EI (process and work with providers) as well as their experiences and views of inclusion and barriers to EI services, in under-resourced communities in Brooklyn. Recruitment efforts and interviews were completed by five research assistants matched to the neighborhoods and cultural communities targeted (Brownsville, Bedford Stuyvesant, and East Flatbush), who were all trained by the PIs on qualitative research methods, interviewing techniques and analyses as well as the EI content focused on in the qualitive protocol.

BC and DOE IRB Approval Process in consultation with DOHMH and DOE

Once we received announcement of the grant award, the Principal Investigators scheduled several meetings with NYC DOHMH BEI and the Director of the Family Child Care Support Team at NYCDOE's Division of Early Childhood Education to discuss the project priorities, including IRB, consent form, recruitment and measures. NYC DOHMH BEI submitted a list of childcare centers and family childcare centers located in the communities prioritized: Brownsville, Bedford Stuyvesant and East Flatbush. In addition, PI and Co-PI scheduled several conference calls with DECE's Director and Coordinators of the FCC Support team regarding DOE IRB, measures, and recruitment of infant-toddler educators and leaders in family childcare and early childhood centers for the iFAMiTcare research project. All required documents including application (e.g., Consent form, qualitative protocol and survey) and CITI training were submitted to Brooklyn College's IRB in May 2019—with final approval received in June 2019. DOE required BC IRB approval prior to submission for the Department of Education's IRB. Immediately after receiving BC IRB approval, additional meetings were scheduled with DOE DECE administrators regarding the DOE IRB, measures and recruitment. DOE IRB application was submitted late July. Since the iFAMiTcare research project was the first time DOE included educators and leaders in family childcare and early childhood care centers with infants and toddlers, the IRB process was delayed. DOE IRB provided initial feedback late in September of 2019. Further consultation with DOHMH administrators and DOE Family Childcare Support Team regarding changes required occurred to address required revisions. Final revisions were submitted to DOE IRB a week after initial feedback was received and final approval was obtained on November 15, 2019.

Recruitment

The Principal Investigators had several initial meetings with administrators from DOHMH and DOE Family Childcare Support Team within the Division of Early Childhood Education to identify family childhood care and early childhood centers within the three targeted communities. DOHMH provided a list of possible contact information for over 100 family childcare and early childhood centers located in three targeted communities: Brownsville, Bedford Stuyvesant, and East Flatbush, which they also shared with DOE DECE. As soon as the iFAMiTcare research project was approved by both Brooklyn College IRB and the DOE IRB, the research assistants sent introductory emails and follow up phone calls to each of the family childcare and early childhood center providers to seek their participation (see the initial phone call script is in Appendix B).

In addition, the Principal Investigator and research assistant continued to attend monthly meetings at United for Brownsville (UB; an organization that brings together infant-toddler providers from across the Brownsville neighborhood), solicited participants, distributed flyers about the project, and reached out to various EC administrators and providers in high-need Brooklyn neighborhoods. In addition, the PIs and RA participated in several conference calls with DOEs Family Child Care (FCC) Support Team and were invited to attend and recruit early childhood participants at several of their FCC Network meetings. Interested attendees provided their name and contact information on a sign-up sheet to the PI. iFamiTcare flyers and letters were also sent to the Family Childcare Network coordinators, who then distributed the information directly to the providers. Finally, due to COVID-19, educators and leaders working in the centers we were in the process of recruiting were shut down and too overwhelmed to participate in the project. As a result, additional efforts were done to recruit graduate early childhood students from Brooklyn College, who reflect large proportions of students from

African American and Caribbean backgrounds and who teach in low-income communities in Brooklyn (see Appendix B for the iFAMiTcare letter and Flyer used to recruit participants).

Qualitative Interview Procedures

Infant-toddler educators and leaders were contacted and informed of the qualitative research study and scheduled for an appointment over email and/or the telephone. All qualitative interviews or focus groups were scheduled at a time and location most convenient to the participants (e.g., workplace, iFAMiTcare research lab on campus or on phone while participants were home). The goal was for our participating infant-toddler educators and leaders to be interviewed in an environment where they were comfortable talking freely about their experiences and perceptions. Due to COVID-19, several interviews were recorded over the telephone. For their participation, infant-toddler leaders and educators received a $50 gift card to an online teacher supply store to be used for learning materials or books for their classrooms.

Interviews and focus groups were audio-recorded and portions of transcripts were transcribed by research assistants (Note: complete transcripts on all interviews will be continued until all are completed). A survey gathering both demographic data and educators' and leaders' knowledge of early intervention services was given to each educator/leader who participated in the qualitative interview or focus group. All focus groups with infant-toddler educators were conducted separately from provider administrative staff to encourage educator participation and increase the validity and reliability of data collected.

All data will be kept confidential and informed consent was undertaken via audio recording which only included participant initials. Participants were also notified that they can decline participation in the study at any time or can decline to respond to any or all of the interview questions.

Measures

Infant-Toddler Educator/Leader Survey

To measure infant toddler educators' and leaders' knowledge about the EI process, best practices and competencies, including family-centered practice, all infant-toddler educators and leaders completed an adapted version of a questionnaire developed by DOHMH BEI. Participants were given 13 questions related to child development, family-centered practice, and Early Intervention services. Sample questions include: "Family participation in the Early Intervention (EI) Program is voluntary and confidential? True or False; "Early Interventionists across disciplines (e.g., physical therapist, special instructor) demonstrate family-centered practices by…". Demographic information on characteristics of educators/leaders was gathered (e.g., role, education level, race/ethnicity) and as well as information on the family childcare and early childhood center (e.g., EC type, size, and neighborhood) were also assessed (see Appendix C for the iFAMiTcare Survey). This was survey administered at the start of each interview.

Qualitative Interview Protocol

Infant-Toddlers educators and leaders participated in a one-on-one, semi-structured, qualitative interview or focus group, which lasted about 1 hour. The interview protocol followed a standard set of open-ended questions. All participants were asked questions around three key areas: 1) **Early Intervention Services**: Knowledge about Early Intervention, Experiences with Early Intervention and/or Early Interventionist, Barriers to referring children to Early Intervention or engaging children and families in Early Intervention Service, and Recommendations to overcome barriers**; 2) Experience Caring for Infants/Toddlers with and without Disabilities:** Experiences with infants/toddlers with and without disabilities, and Supports available or needed**; 3) Relationships: Caregiver/Family Relationship.** Sample

questions include: What recommendations would you suggest for overcoming the barriers you've described? How do you recommend Early Interventionists should be involved with children with disabilities in your classroom? How should Early Interventionists work with families and their children? Please describe your relationship with the parents and families you serve. What additional education and support do you need to better support parents and families?

The qualitative interviews were audio-recorded and are bring transcribed verbatim. To ensure accuracy of the transcripts, the interviewer rechecks transcripts against the audio recording. (See Appendix C for the Qualitive Interview Protocol).

Data Analysis

Preliminary analyses will examine baseline characteristics across sites. Qualitative data gathered from individual interviews/focus groups will be analyzed using Grounded Theory methodology (Strauss & Corbin, 1998) which will identify emergent themes across groups of educators, leaders and site types from survey data. Audiotapes and written transcripts of the interviews will be reviewed, and different colors will be used to highlight these three aspects of providers' narratives (Brown & Gilligan, 1991).

Common themes were those identified in 30% or more of the participants. A theme detected in one participant will be looked for in the other participant narratives to determine whether it was an isolated or common theme among a group of infant toddler educators/leaders. After examining and recording educators'/leaders' narratives for the themes and reexamining the themes across participants, a matrix display containing educators/leaders exact quotes will be created to compare and contrast themes across all narratives as suggested by Miles and Huberman (1994). Within these conceptual categories, themes identified in each narrative will be

clustered and the frequency of each theme will be coded. These matrices will be used as a tool to identify similar and different themes and patterns within and across the educators/leaders.

Addressing the Issue of Trustworthiness

We will never know for sure if infant-toddler educators and leaders considered what they revealed to researchers about their past and current experiences with early intervention and their interactions with infants and toddlers with developmental delays or disabilities and their families to be absolute truth. It was not, however, our intent or purpose to discover any one truth, but instead, to understand how ECE educators and leaders *perceive* the experiences that they disclosed. To ensure the trustworthiness of the interpretational process we adopted the following criteria: researchers focused on building a trusting relationship with each infant-toddler educator or leader so they would be comfortable enough to be as honest as possible with themselves and with the researchers when recollecting their experiences; researchers took special care to explain all aspects of study to participants including confidentiality; researchers worked to facilitate infant-toddler educators/leaders understanding of the consent form and detailed how it will protect their privacy (e.g., all names changed to pseudonyms) and interviews with teachers were conducted separately from the leaders.

To also ensure that we are not misinterpreting the meaning of what ECE educators and leaders told interviewers, researchers will continue to solicit feedback from each other throughout the entire research process by meeting weekly with our research team as well as colleagues from DOHMH and DOE DECE, and by discussing identified themes with research participants (Creswell, 1998). In the final phase, transcripts will be read independently by two researchers and identified coding discrepancies will be compared for an intercoder reliability ranging from 80% to 100%. Finally, to avoid making inappropriate interpretations of the data,

instead of paraphrasing the data, we will quote directly from the interview transcripts, so that the participants' voices can be heard throughout our interpretation (Way, 1998). This will provide clearer evidence of the themes and conclusions being discussed in the paper.

4. Preliminary Findings

Preliminary analyses described below address study research questions using both qualitative and quantitative data collected. Findings from qualitative analyses are organized under the three overarching areas of inquiry: Knowledge or Early Intervention Services; Barriers to Children with Developmental Delays/Disabilities Receiving Early Intervention; and Recommendations for Provider Supports and Overcoming Barriers to Receiving EI. Each of these areas is further broken down into specific topics. Themes identified within these topics are presented with associated quotes.

Knowledge of Early Intervention, Family-Centered Practices and Child Development

To answer the first research question regarding ECE providers' knowledge of Early Intervention (EI) and child development, we first examined participants' responses on a series of questions focused on knowledge of child development, family-centered practices, and EI services. All participants correctly identified the mission of Early Intervention as to enhance the abilities of infants and toddlers with developmental delays and disabilities by supporting their families and caregivers in using everyday routines to promote development. They also identified EI as free, confidential, and voluntary for families. However, around a quarter of the sample had trouble identifying EI as services for *both* children and families (23%), thought that *all* children referred to EI would be eligible for EI services (37%), and didn't identify childcare providers and doctors as potential sources to refer to EI (27%). Also, a small percentage of participants

thought that EI could share family information outside the program following family referral (10%), and were not clear that early interventionists should integrate strategies to support children with disabilities into the daily routines in the classroom with their peers or with family routine activities in the home (13%).

Furthermore, substantial portions of the sample did not identify important elements of EI services and tenets of child development. Forty percent of participants did not identify grandparents, child care center teachers, and other caregivers as potential individuals that parents could identify to participate in EI sessions. Also, 65% of participants incorrectly responded to a question on the science of early brain development, endorsing the statement that the brain's capacity for change *increases* with age. Importantly, 53% of participants did not endorse the concept that a childcare program is *no longer* considered a natural environment when EI professionals provide services to children isolated and separated from the childcare teacher and the other children during a childcare program's routine activities.

We also analyzed qualitative data to examine ECE providers' beliefs and knowledge regarding EI services, family-centered practices, and child development. Several themes that characterized providers' views and perceptions emerged.

The Importance of Early Intervention and Intervening Early to Prevent Long-term Delays

The majority of ECE providers reported to see the value of early intervention and the need to intervene early with infants and toddlers with developmental delays and disabilities to best support their development and to prevent long-term delays that carryover into kindergarten and beyond.

For example, Charmaine, a Caribbean ECE educational director and leader in East Flatbush in her 50s who originally taught older children in public elementary school, stated:

> *I was a public school teacher and actually have been in the public school for many years, and I have taught 3rd grade and I've noticed that level – the reading level – are so low with the children and some of them come in with some sort of behavior or some sort of simple uh disability and how can we reach out to them before they reach this stage!... By we assessing the children within 45 days, actually assessing that child we may see where that child might need some help and um where can we help them (so that) by the time they get to kindergarten the child is fully rounded and ready for kindergarten and not repeating kindergarten! If we can actually get the service now it's better for the child's developmental stage.*

Similarly, Petula, an ECE teacher in Bedford-Stuyvesant stated,

> *It's good for the child as it's going to help the child move forward. It's gonna help the child improve whatever weaknesses the child has.*

Small but Consistent Proportions of Children Display Risks for Delay or Disabilities

Many teachers and leaders spoke of their observations of the children they care for and teach, and noted steady instances of small proportions of children each year who are outside the range of normal for developmental skill development in various domains. Educators often explained that due to their consistent experiences working with very young children, they notice that even given the great variation in children's skills, they regularly observe a few children in their care every year who would benefit from more intensive services who are not currently receiving them. For example, Suzette, a West Indian ECE director and site leader working in Brownsville in her 60's explained that in her center every year she sees one to two children out of every fifteen who have more serious issues that are outside the capacities of the classroom teachers to address. Many teachers and site leaders echoed this assertion, specifically discussing social-emotional and physical issues that interrupt their ability to effectively work with the other children in their care.

Limited Knowledge of Inclusion or Family-Centered Practices

ECE providers shared their perceptions of their work and experiences with children and their families, including potential areas they identified for support in fostering inclusive early

childhood education and in working with families. While generally, they consistently identified program aspects of Early Intervention such as confidentiality and applicability to children 0 to 36 months-of-age, some participants were not clear Early Intervention's central program elements, specifically the importance of 1) service delivery occurring in natural environments and not in isolation from regular contexts of childcare, and 2) family-centered practices that center on the family's priorities, concerns and interest.

Specifically, some ECE providers either discussed Early Interventionists removing children from the classroom setting/working with them isolated from the rest of the class, or expressed interest in obtaining pull-out services for children in their care who they felt needed more intensive services. While some ECE teachers discussed an interest in learning from Early Interventionists regarding appropriate strategies they could themselves use to include children with delays and disabilities in everyday classroom routines, other teachers seemed to feel it was appropriate for Early Interventionists to work with those children *outside* of regular classroom activities.

Barriers to Children with Developmental Delays/Disabilities Receiving Early Intervention

Although the infant-toddler educators and leaders recognized the value of children receiving early intervention services at an early age, we explored their perceptions about the potential barriers of children at risk for developmental delays and disabilities receiving early intervention services. One set of barriers identified could be considered potential concerns or limitations of the system that acted as barriers, while another set revolved around issues related to families that make it challenging to connect children to the services they may need.

System Barriers

Limited communication and support of inclusion from Early Interventionists. ECE providers shared their perceptions of their work and experiences with children with developmental delays and disabilities and their families, including potential areas they identified as preventing a more inclusive early childhood classroom environment. One common comment we heard was their concern that EI services excluded and didn't communicate with the early childhood centers—educators and leaders—in the EI process---from the start of EI referral to participation in the Individualized Family Service Plan meeting to the implementation of EI services to children in the school or home. In turn, their lack of communication and collaboration with educators shut them out of supporting the children with disabilities in their classrooms and support for families.

Inability to advocate for family. This lack of communication and connection between EI and the center prevents educators and leaders from supporting families in the EI process or advocating for them as one ECE Jamaican leader, Tara, reported,

> *We spent a great deal of time encouraging a family to have their 2-year-old daughter with very little language and limited communication skills to have a speech evaluation. The mom reported when she went, they (speech therapist) told her that her child was too young. It was already a parent we really pushed to have her child evaluated. Since they told her this than what could we do at this point because there is no connection between us and EI.*

"We are all working with children in our own little corners". When children are receiving EI services in the classroom, several educators and leaders complain about a lack of communication between the EI services and their center. As one explained, *"there is a lack of understanding of the services being offered. If we don't understand the services being offered our self, then we can't follow up with family."* EI providers come in and working directly with the children with little to no communication about what they are working on with the child in the classroom as Tara coined this process "*We are all working with children in our own little*

corners". This lack of collaboration and inclusion of services in the classroom prevents teachers from being able follow through on these supports the other days the early interventionist is not around.

Relatedly, Tara stated, *"If infants or toddlers receive services at home they [teachers] are not able to carry that into the classroom… They don't always know what is happening at home. We just receive no connection between early interventionist and us. We only talk to them [EI] when the children are older."*

Fear of Stigmatization and Being Stuck with a Label. Many educators discussed views that often parents are hesitant to begin the early intervention process because of fears that engagement with the system will result in a label that will stigmatize and stay with their child throughout their time in city educational institutions. As Eloise, a Caribbean ECE teacher in East Flatbush in her 30s succinctly stated, *"Parents are scared their children might be labeled or stigmatized"*. Similarly, Margo, a Caribbean ECE teacher in Bedford-Stuyvesant also in her 30s, spoke to the fear some parents have of engaging with the system, saying, *"When some parents hear 'services' they think it's the worst thing ever! When really the services are just there to help"*. ECE teachers' and site leaders' comments suggest that further communication with parents regarding the confidentiality of Early Intervention services might serve to improve parents views on protections in the Early Intervention system that could buffer their children from stigmatization.

Barriers within the Family Unit

Family Members Don't Always Agree on What's Best for Their Child. A frequent theme reported by both infant-toddler educators and leaders is that within families there was frequent disagreement about the need for their child to receive early intervention services. Often

the educator would share concern about a child's developmental delays to the mother, who initially appeared to understand the need for their child to be referred to early intervention, only to come back the following day deciding not to follow through on the referral after discussing the concern with their husbands or even their mothers. As a result, these children often never receive EI.

For instance, Shona, an Afro-Caribbean infant-toddler leader reported that both she and a mother an 18-month-old girl shared concerns about her daughter's limited words and inability to communicate her needs and agreed to refer her to early intervention. However, the mother changed her mind since her husband disagreed and said he was a late talker and never needed special services. As this leader stated,

> *The parents don't communicate with each other and if the mom wants services for their child, she would actually be like oh my husband has to agree to this part and usually the father doesn't agree for some reason.*

In another family, a grandmother argued against a mother referring a child for early intervention since she thought her granddaughter was too young to be receiving special education and would grow out of her delay. Families as a whole should be considered in conversations surrounding potential supports for children at risk for delays or disabilities.

Lack of Money for Early Care Prevents Early Assessment and Support to Infants and Toddlers. Another common barrier we heard the infant-toddler leaders report was that they have children attending center-based programs for the first time at 3 and 4 years of age due to financial concerns, so they missed an opportunity to support their children's development and prevent developmental delays, as Charmaine reported,

> *A lot of parents don't have the money to pay for preschool or daycare. So, it's a choice between paying rent and paying preschool so what they doing they keeping the children home until they're ready for the 3 year old UPK and the 4 year old UPK. But we find that*

they're coming in at 4 years old and some are still in pull-up! Some are speech delayed, some need O.T., some need P.T.!

Recommendations for Provider Supports and Overcoming Barriers to Receiving EI

Next, we examined ECE providers' views on the practices they engage in to increase children's access to early intervention services and to support young children with developmental delays or disabilities in their classroom, including supporting their families, as well as their recommendations to overcome what they view as barriers to young children with disabilities receiving EI services.

Education Opportunities for Childcare Providers (and Parents)

Several participants acknowledged their own lack of knowledge of understanding child development, atypical development or conducting developmental screenings or assessments on their children. As a result, they suggested receiving training or taking courses that focus on child development (typical and atypical) as well as learn how to administer developmental screening tools. Parents need to be trained on what child development is all about. They thought this was something that be done by experts in the field as well as their own administrators, as one provider indicated, *"I provide monthly trainings to parents, such as separation anxiety in the beginning of the new year."* Relatedly, she felt waiting to train parents about child development when they entering a center-based program is already too late, and said, *"Try to get to the parents before they come here…perhaps another community-based organization can reach out to parents before they come to here."*

Other participating infant-toddler educators identified children with developmental delays, but they were not comfortable sharing this difficult news to parents. Or when they did share their concerns, parents were resistant. As a result, several infant-toddler educators and

leaders suggested *"parents need to be trained on what child development is all about"*. In addition, infant-toddler educators need guidance on how to support parents in this process. For instance, Ebony, an African American ECE teacher working in Bedford-Stuyvesant in her 30's expressed that,

> *Parents do need a lot of support when it comes to things like this. Most parents, it's hard to get them to agree to get any of this extra help. Then you have other parents that are on board with you and then you have other parents who are in denial…I feel you need your own separate support system for the educators and the parents. Training is important for the parent too, how to get these parents before they come in here, I really don't know.*

In addition, educators were less comfortable knowing how to support infants and toddlers with disabilities in their classrooms, so that they can support all the children, while also engaging children with disabilities in activities and interactions with their peers. As Ebony further shared,

> *I feel like we don't get a lot of educational background on how to approach a parent or the right vocabulary usage that we can use."*
> *"If they do their Bachelor's and their Master's I think they need more credits in special ed. That 6 credits or whatever is not enough for them to handle the kind of situations that we're faced with.*

An ECE administrator and leader, Suzette, expressed this succinctly, saying, *"The first thing is that teachers need to be trained".*

Further, educators were less comfortable knowing how to support infants and toddlers with disabilities in their classrooms, so that they can support all the children, while also engaging children with disabilities in daily activities and interactions with their peers. Charmaine recommended early childhood teachers receive *"more training in special education since have more children with disabilities in the classroom."* Another infant-toddler leader, Charlene shared that it would be helpful for teachers learn strategies to better support toddlers with delays in the classroom, such as adaptive skills, stating, for example that, "a *teacher may need strategies to have a child learn how to use a spoon to eat… may need to use hand-over-hand."*

Training and Tutoring to Certification Completion for Childcare Workforce within Neighborhoods

Although many of the infant-toddler educators obtained a degree in early childhood education, some were lacking certification in early childhood or early childhood special education and discussed other colleagues they knew who also had special education training but not certification. Several suggested offering certification preparation assistance—both instrumental and financial resources—as a way to increase the Early Intervention referrals, evaluations, and services offered in their neighborhoods.

More Subsidized Early Care Opportunities: Support Earlier Assessments and EI Referrals

Some providers identified the potential for early care and education settings to act as a standard source of referrals to Early Intervention, but noted that many children at risk for delays or disabilities are not in formal care arrangements due to financial limitations. For example, as Charmaine stated,

> *A lot of parents don't have the money to pay for preschool or daycare. So, it's a choice between paying rent and paying preschool so what they doing they keeping the children home until they're ready for the 3-year-old UPK and the 4-year-old UPK. But we find that they're coming in at 4 years old and some are still in pull-up! Some are speech delayed, some need O.T., some need P.T.!*

Embed Information on Early Intervention in Childcare Orientation and Parent Handbooks

Infant-Toddler educators and leaders suggested that their childcare centers discuss early intervention process and value of EI as part of their program orientation. Specifically, some site leaders and teachers discussed the possibility of including information about child development and the importance of early intervention in sessions or materials shared with parents early on in their children's time in those ECE settings.

Shared Culture Can Facilitate Provider Conversations with Parents

Finally, many providers spoke of the benefits of being from a similar background to parents when having conversations about their children and whether they may be at risk for delays or disabilities. Teachers and leaders both discussed the benefits of shared background and shared community in establishing rapport with families and thereby making it easier to have challenging conversations with parents regarding potential developmental delays in their children. For example, Petula expressed,

> *Parents be happy to know you're from the Caribbean and parents like to know you bring that kind of - understanding….sometimes they think "you can bring a little of that culture to the classroom that would benefit their child."*

Also, Isis, a West Indian ECE teacher in East Flatbush in her 30's related,

> *In one case, it was beneficial for both parent and teacher to have the same cultural background, made it easier for teacher to talk to parent and made parent more receptive to what teacher had to say.*

Furthermore, Valera, an African American teacher in Bedford-Stuyvesant in her 30's summed it up from her perspective as both a teacher and a parent herself, saying,

> *I appreciate the fact that I am black and a lot of my kids are black. That is something that unites them. and makes them* [parents] *feel more comfortable talking. If the tables were turned, if my child had a delay and the teacher was white, it's just something that I just can't explain, it's innate I would feel more comfortable if that person was black.*

Differences Across Contexts of Care and Socio-Demographic Groups

We also asked whether ECE providers knowledge beliefs and practices differed across contexts of care, including types of EC settings and educator characteristics, as well as how race/ethnicity, culture, and neighborhood play a role in ECE providers' knowledge, beliefs, and practices in relation to EI services, child development, and family-centered practices.

Initial findings from quantitative analyses of ECE providers' knowledge of Early Intervention, child development, and best practices for service delivery show that an educator's role may make a difference in what ECE providers know about Early Intervention and best practices for children and families. Though essentially all sample participants were able to identify the mission of Early Intervention, noted that parents were the ones to decide on children's participation in EI, and recognized that EI services were free of charge, ECE teachers and administrators/site leaders more reliably identified other program elements and tenets of child development than Family Childcare providers. Also, ECE administrators/site leaders more consistently identified the characteristics of embedded interventions, acknowledged that not all children referred to EI would be eligible for services, and recognized that intervening early is key due to the brain's decreasing capacity for change with increases in child age. It is of note, however, that the majority of ECE providers, regardless of role, did not adequately acknowledge that when services are provided to children in childcare settings isolated and separated from the childcare teacher and other children it is no longer considered to reflect natural environments. Findings suggest that training on the nature and importance of natural environments for Early Intervention service delivery appears in need across the field of early care and education.

We also examined whether there were differences in knowledge of Early Intervention, child development, and family-centered practices according to the number of years ECE providers worked in the field, but no significant differences emerged in the data. Similarly, no differences in quantitative data were evidenced in comparisons of ECE providers from West Indian/Caribbean backgrounds in comparison to native African American providers, or across neighborhoods sampled in the study.

Ongoing qualitative analyses examine whether role, race/ethnicity, culture, and/or neighborhood play a role in ECE providers' views on their experiences working with infants and toddlers, their encounters with Early Intervention and Early Interventionists, their relationships with families, their views on barriers that prevent children from referral to or receipt of services from EI, and their recommendations to overcome barriers and to equip ECE providers to serve and support children at risk for delay or disabilities and their families.

5. Discussion/Implications

The current study examines the perspectives of 40 predominantly Afro-Caribbean and African American early care and education providers serving families in low-income neighborhoods in Brooklyn serving primarily black children and families where currently rates of referral to Early Intervention are unexpectedly low. The study endeavored to identify teachers, administrators/site leaders, and family childcare providers across a range of these neighborhoods to learn more about their knowledge, beliefs, and practices with regards to Early Intervention—including inclusion and family-centered practices—child development, and working with infants and toddlers with and without disabilities and their families.

The study also sought to more deeply understand the barriers—both to referral to Early Intervention and to receipt of intervention services—that both ECE providers and families face in their efforts to support the youngest children in under-resourced communities in Brooklyn. Further, it aimed to ascertain the recommendations of these front-line workers for program policies, professional development and educational courses needed to work with families to support young children with delays or disabilities, particularly those in high-need communities where referral rates are unexpectedly low.

Initial findings suggest that in general, ECE providers in under-resourced neighborhoods in Brooklyn have important foundational knowledge of Early Intervention, keenly understand the benefits of children's engagement with EI services, and recognize that within the wide range of variation in very young children's developing skills across domains, a small percentage of children are "in-need" of more intensive services to support their development and address potential delays or disabilities. Across types of childcare settings and educator roles, providers know key facts about Early Intervention, including that services are for children with delays or disabilities from birth to three years of age, that families play a primary role in agreeing to services, and that services are provided free of charge.

However, substantial proportions of the sample were unclear regarding other key elements of Early Intervention. Specifically, some providers may not be clear on eligibility criteria, and endorsed the statement that all children referred to EI would be eligible for services. This lack of clarity may serve as a barrier, as some providers may suspect that services are not always being delivered to children in need. Further program education efforts might seek to clarify eligibility criteria. Also, some ECE providers did not support the statement that parents can identify childcare teachers to participate in services or that childcare providers, like doctors, can help refer a child for evaluation to EI as long as the parent does not object. This suggests the need to emphasize the critical role that childcare providers can play both in connecting children and families with necessary services and in playing a role in the delivery of those services when they are a part of children's everyday experiences. Perhaps most importantly, preliminary findings from this study demonstrate the need for better understanding of what constitutes children's natural environments, as half of the participants in this study, regardless of role, did not recognize that Early Intervention services that are delivered in childcare settings but isolated

and separated from the childcare teacher and the other children during routine activities are not adhering to mandates to provide services in children's natural environments. Furthermore, many providers related that Early Intervention professionals who work in their sites often pull children out of routine activities to work with them, or work with children on the side and not as part of group activities.

ECE providers also discussed their experiences with children with developmental delays or disabilities in their classrooms. In particular, many discussed having an EI provider (typically SLP, OT or special instructor) coming into the classrooms to provide early intervention services to children directly in the classroom or in the child's home. Unfortunately, it appears to be common practice that there is limited to no communication between early intervention providers and the childcare center providers—regardless if services are being done in the home or center. Several of the ECE providers reported that they are left out of the EI process beginning at referral. While they are the ones often identifying developmental concerns and informing parents to make that initial referral for an EI evaluation, they feel they are left in the dark about the assessment results and IFSP meeting goals—and expressed that they are not invited to the table when determining recommendations to support children's development and often don't see the IFSP. This is a missed opportunity if parents are willing to include childcare providers, as infant-toddler educators are often with the children 6 or more hours a day and after the child's caregivers, they know the child best. Encouraging parents to invite their child's teacher or educational director/leader to that IFSP meeting as well as interviewing the child's teacher and even including an observation of the child in the childcare center as part of the evaluation report can provide another picture of the child's developmental ability in a context with peers. This also recognizes the importance of the ECE provider being a part of the

interdisciplinary team and more effectively supporting the child in an inclusive classroom and the family.

Furthermore, many of the ECE providers reported there was lack of communication between the early interventionist and the ECE provider. Rather than the early interventionist observing the child in his/her natural environment and discussing with the child's teacher her own observations of the child's strengths/weaknesses, as mentioned, routine practice appears to be that the early interventionist comes in the classroom to work directly with the child, often pulling the child out to work with one-on-one away from his/her peers and then leaving the classroom when the service is done, without any discussion with the teachers. Again, this is a missed opportunity to foster inclusion and embedded practice in the daily routines of the classroom. It also prevents the teacher from learning effective strategies from the early interventionist and incorporating these strategies in the child's daily routine.

Other barriers to referral to and receipt of Early Intervention services discussed by teachers in preliminary findings included fears of stigmatization and of very young children acquiring unfavorable labels that will stay with them throughout their time in public education settings and potentially work against their interests. Increasing understanding among families of the Early Intervention system as confidential and not shared with public education agencies upon children's transition out of EI unless parents agree to this is critical, but also more work understanding families concerns about stigmatization and negative effects of participation in Early Intervention are just as important. Further work should be done to explore providers and families views on stigmatization and mistrust of the system, and on measures that could be undertaken to address these issues.

Initial study findings are also beginning to identify ECE providers' recommendations for increasing access to EI by addressing the barriers that preclude children's referral to EI and decrease the rates of children being referred to and receiving necessary intervention services in many under-resourced neighborhoods. In particular, to increase equity of services education efforts on *many* fronts were discussed. Educators- particularly teachers- recognized their need to have more training on child development, including assessment. They also expressed interest in training on managing challenging conversations with parents to encourage children's access of services that will further support their development. On the side of families, some educators recommended the idea of potential childcare site practices that normalize the receipt of Early Intervention services, by discussing them as regular practice in sessions and materials that are discussed with parents when children enter childcare settings. Further, many educators endorsed measures that might increase their own education and training, and that might increase the certification of special education professionals in the same under-resourced neighborhoods as children and families. Tapping the supply of early childhood professionals already living and working in neighborhoods where referral rates are low to increase the reach of Early Intervention evaluators and service providers may play a duel role in both increasing children's access to Early Intervention and matching families with professionals with whom they share backgrounds and communities.

Preliminary findings from our mixed-method research design advances the field's understanding about some of the gaps that exist in the quality of early intervention services, including inclusion and family-centered practices, provided to infants and toddlers with developmental delays and disabilities, in childcare centers located in largely Black and Afro-Caribbean urban communities. Our focus on interviews from the voices and experiences from

infant-toddler educators and leaders within these communities provided us an opportunity to hear directly from those dedicated to supporting many of most vulnerable infants and toddlers in communities of poverty. Overall, the 40 early childhood educators and leaders we interviewed are often in the front line of referring infants and toddlers to EI for evaluation and services, but are left out of the process.

An overwhelming majority want to collaborate with their EI colleagues and be part of the EI process from referral to inclusion of services to children with developmental delays in their classrooms and to better support parents in this process. They acknowledge the need to increase their knowledge about child development (typical and atypical) and assessment as well as the necessity for more specialized training in evidence-based practices, including family-centered practices, embedded coaching, and adapting curriculum and the environment. They also recognize their own need to better inform and prepare parents about EI and the benefits of EI as part of their program focus as well as deepen parents own knowledge about development to better support their children and prevent long-term delays. Our preliminary findings offer essential training components early childhood teacher preparation programs as well as Early Intervention and Childcare systems should incorporate to better support the care and development of infants and toddlers with developmental delays and disabilities and their families.

Dissemination: Locally and Nationally

Deliverable research products will be produced for DOHMH, DOE, DECE and the Early Childhood Research Network, and a wider research audience, including: 1) reports on baseline data collection, 2) a final report to the Research Network on project implementation and findings, 3) Modification of course curriculum in our undergraduate and graduate early

childhood education programs, 4) A Needs Assessment generated from educator focus groups, and 5) Presentations and Publications locally and nationally.

Dr. McFadden presented the status of the iFAMiTcare project to the November 15th NY Local Early Intervention Coordinating Council meeting at DOHMH BEI. Current scholarly works that were completed with Heising-Simons Foundation funding:

McFadden, Shannon and DeSousa (with researcher colleagues from the Network of Infant/Toddler Researchers; NITR). *Examining perceptions of work with children and families in infant-toddler care settings in diverse, low-income urban neighborhoods*. Symposium talk accepted to the Administration for Children and Families' Childcare and Early Education Policy Research Conference, March 2020, Washington, DC. Unfortunately, due to COVID-19 the conference meeting was canceled, but online sessions may be scheduled in the near future.

McFadden, Shannon and DeSousa (with J. Saba, Healthy Steps, Brookdale Hospital; K. Belay, SCO Family of Services; and N. Puffett, NYC DOHMH BEI). *Collaborating for Systems Change: Early Intervention in Brownsville, Brooklyn*. Workshop presentation at the National Zero-to-Three Conference, 10/2020.

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