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Supporting Positive Parenting in the Context of Home Visiting: An Exploration of Observed Home Visitor Practice

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Supporting Positive Parenting in the Context of Home Visiting: An Exploration of Observed Home Visitor Practice

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Abstract

Due to the lasting, negative impact of poverty on the well-being of millions of children, addressing issues of socioeconomic disparities in early child development is a national priority. The primary purpose of many early prevention and intervention programs implemented in the context of home visiting services is to improve the developmental outcomes for young children from low socioeconomic backgrounds. Parenting is an important target of intervention for these programs because positive parenting is associated with a range of improved cognitive, social-emotional, and behavioral outcomes. Home visitors implementing parenting interventions should use a specific set of recommended practices to enhance parenting skill and foster the parent-child relationship. Unfortunately, the research investigating home visitor practice through observational measures suggests limited use of these effective practices. The purpose of this study was to examine home visitor practice using an observational measure, specifically the *Home Visit Rating Scales – Adapted and Extended* (HOVRS-A+), to gain further insight into the practices used by home visitors to support parenting, the variability in these practices, and whether these practices are associated with improved parenting outcomes. In addition, this study explored the connection between parenting and culture by examining home visitor practice in a subsample of Hispanic families. Lastly, factors that may affect home visitor practice, such as professional qualifications or cultural match with parents, were explored.

Supporting Positive Parenting in the Context of Home Visiting: An Exploration of Observed Home Visitor Practice

Children are most vulnerable to the adverse effects of living in poverty during the rapid period of growth and development that occurs in early childhood. The harmful consequences of living in poverty during early childhood, such as chronic stress, place children at greater risk for poor educational and health (physical and mental) outcomes relative to peers from higher socioeconomic backgrounds (Noble et al., 2015; Reiss, 2013; Shonkoff & Garner, 2012). The stress associated with living in poverty has been linked to decreases in global cognitive functioning (e.g., lower IQ score), cognitive control, declarative memory, receptive and expressive language skills, and other cognitive functions integral to reading and learning new skills (Duncan et al., 1994; Noble, Tottenham, & Casey, 2005; Noble et al., 2015; Shonkoff & Garner, 2012). Disparities in cognitive development related to differences in socioeconomic status can be detected as early as the second year of life (Noble et al., 2015). In addition to its impact on cognitive functioning, chronic stress experienced during early childhood can lead to long-term physical health problems (Shonkoff & Garner, 2012). Lastly, the stress associated with living in poverty during early childhood can also lead to mental health difficulties that present in later childhood and even adulthood (Duncan et al., 1994; Reiss, 2013; Shonkoff & Garner, 2012). These mental health difficulties include increased externalizing and internalizing behavior problems; difficulties related to self-regulation; inability to respond adaptively to future adversity; increased risk-taking behaviors; and unhealthy lifestyle later in life (Duncan et al., 1994; Reiss, 2013; Shonkoff & Garner, 2012).

The long-term socioeconomic disparities caused by the detrimental consequences of living in poverty during early childhood constitute a critical public health concern given the

pervasive nature of this issue. According to *Income and Poverty in the United States: 2015* report, which summarized the most recent results of the Current Population Survey Annual Social and Economic Supplements (CPS ASEC) conducted by the United States Census Bureau, a staggering 14.5 million children live in poverty in the United States (Proctor, Semega, & Kollar, 2016). Nearly 5 million of these children are under six-years-old; roughly 1 in 5 children under age 6 are living in poverty (Proctor et al., 2016). Of additional concern is the disproportionate amount of children and families from racial and ethnic minority backgrounds living in poverty in the United States (Proctor et al., 2016). Black and Hispanic households had the lowest median income of all races (i.e., $36,898 and $45,148 respectively), which was lower than the average median household income of $56,516 (Proctor et al., 2016). Furthermore, a disproportionately high percentage of Black and Hispanic individuals, 24.1 percent and 21.4 percent respectively, are living in poverty compared to the 9.1 percent of Non-Hispanic White individuals and 11.4 percent of Asian individuals living in poverty. These racial and ethnic differences add to the complexity of the relationship between socioeconomic disparities and children's developmental trajectories. The systems serving young children and their families must act to improve the long-term outcomes of children living in poverty to ensure that all children, regardless of class, race, or ethnicity, are afforded the same opportunities to become successful adults.

Positive Parenting as a Protective Factor

One way child-serving organizations can address the issue of socioeconomic disparities in developmental trajectories is to implement early intervention programs designed to promote positive parenting in families of children ages birth to five. Positive parenting is characterized by parent behavior that is warm, responsive, sensitive, provides an appropriate level of cognitive

stimulation, provides language and learning support, and is less intrusive and harsh (Brady-Smith et al., 2013; Chazan-Cohen et al., 2009; Cooper et al., 2009; Dyer, Owen, & Caughy, 2014; Guttentag et al., 2014; Harden, Sandstrom, Chazan-Cohen, 2012; Martin, Ryan, Brooks-Gunn, 2013; Mortensen & Mastergeorge, 2014; Peterson, Luze, Eshbaugh, Jeon, & Kantz, 2007; Raikes et al., 2014; Rispoli, McGoey, Koziol, & Schreiber, 2013). These positive parenting behaviors serve as protective factors for young children living in poverty, as they are associated with a range of desired child outcomes (Mortensen & Mastergeorge, 2014; Noble et al., 2015; Shonkoff & Garner, 2012). Children whose parents engage in positive parenting behaviors are (a) securely attached and have improved parent-child relationships (Brady-Smith et al., 2013; Cooper et al., 2009; Harden et al., 2012; Rispoli et al., 2013; Roggman, Boyce, & Cook, 2009); (b) have increased cognitive ability and sustained attention (Brady-Smith et al., 2013; Harden et al., 2012; Mahoney, Boyce, Fewell, Spiker, Wheeden, 1998; Raikes et al., 2014; Roggman et al., 2009); (c) have improved receptive and expressive language skills (Dyer et al., 2014; Guttentag et al., 2014; Mahoney et al., 1998); (d) have improved social/emotional functioning and reduced behavior problems (Brady-Smith et al., 2013; Dyer et al., 2014; Guttentag et al., 2014; Mortensen & Mastergeorge, 2014; Mahoney et al., 1998; Raikes et al., 2014; Rispoli et al., 2013); and (e) have increased school readiness skills (Chazan-Cohen et al., 2009; Dyer et al., 2014; Martin et al., 2013). Moreover, the beneficial impact of positive parenting on children's cognitive, language, and social/emotional development has been found for infants and toddlers from diverse racial and ethnic backgrounds (Brady-Smith et al., 2013; Dyer et al., 2014; Fuligni et al., 2013).

The adverse life events frequently experienced by parents from low socioeconomic backgrounds can limit their capacity for supportive and stimulating parenting (Linver, Brooks-Gunn, & Kohen, 2002). Economic hardship is associated with increased financial, psychological,

and emotional stress, poor mental health, fear for safety, increased family conflict, and poor community conditions (Barajas-Gonzalez & Brooks-Gunn, 2014; McLoyd, 1990; Roggman et al., 2009). These harmful effects are associated with parenting behaviors that may negatively impact child development, such as decreased sensitivity and responsiveness, insufficient levels of cognitive and verbal stimulation, fewer opportunities for learning and exploration, increased negativity, as well as the use of harsh, punitive discipline strategies (Barajas-Gonzalez & Brooks-Gunn, 2014; Hans, Thullen, Henson, Lee, Edwards, & Berstein, 2013; Mesman, van IJzendoorn, & Bakermans-Kranenburg, 2012; Roggman et al., 2009).

In addition, parents from racial and ethnic minority backgrounds may experience stress related to their status as a member of a minority group (e.g., stemming from acculturation, migration, illegal status, or discrimination), which may further diminish their ability to parent effectively (Emmen, Malda, Mesman, van IJzendoorn, Prevoo, & Yeniad, 2013). For example, Emmen and colleagues found that maternal acculturation stress, along with general maternal psychological stress, partially mediated the relationship between mothers' use of positive parenting behaviors and socioeconomic status for mothers from ethnic minority backgrounds (i.e., Turkish) living in the Netherlands (Emmen et al., 2013). The negative impact of chronic stress on one's ability to parent effectively plays a pivotal role in the formation of socioeconomic and racial/ethnic disparities in early child development (Brooks-Gunn & Markman, 2005; Linver et al., 2002); therefore, parenting behavior is a key mediating variable that can be targeted for intervention to alter the trajectory of these disparities. Consequently, intervention programs aimed at increasing positive parenting behaviors should have a beneficial impact on child development (Brooks-Gunn & Markman, 2005; Linver et al., 2002; Mortensen & Mastergeorge, 2014).

Positive Parenting: Cultural Considerations

The desired child outcomes that are associated with positive parenting have been documented for families of low socioeconomic status from diverse racial and ethnic backgrounds, indicating that parenting may be an ideal target of intervention for families (Brady-Smith et al., 2013; Gregory & Rimm-Kaufman, 2008; Mesman et al., 2012). However, it is important to note that investigations of parent-child interactions in families from low socioeconomic backgrounds have found both similarities and differences in parenting across racial and ethnic groups. For example, most parents exhibit similar patterns of parenting behaviors (e.g., supportive, directive, or detached) and changes in parenting behavior over time (Brady-Smith et al., 2013; Dyer et al., 2014; Fuligni et al., 2013; Ispa et al., 2013). Nevertheless, the extent to which parents exhibit certain patterns of parenting behavior sometimes differs based on race and ethnicity (Brady-Smith et al., 2013). Often, parents from racial and ethnic minority backgrounds (e.g., African American or Latino) exhibit patterns of positive parenting behaviors (e.g., supportive parenting) less frequently, and inversely patterns of negative parenting behaviors (e.g., directive parenting or harsh parenting) more frequently, than their majority group counterparts (i.e., European American; Brooks-Gunn & Markman, 2005; Fuligni & Brooks-Gunn, 2013; Ispa et al., 2013; Mesman et al., 2012). Similarly, changes in patterns of parenting behavior over time, in response to intervention, may differ by race and ethnicity; whether parents increase or decrease their use of certain parenting behaviors, and at what rate, may vary across racial and ethnic groups (Fuligni et al. 2013, Ispa et al., 2013; Shonkoff & Fisher, 2013). For example, Ispa and colleagues (2013) found that European American, African American, and Mexican American mothers receiving Early Head Start services all exhibited decreasing levels of directive behavior from the time their child was 1-year-old until their child was 3-years-old;

however, Mexican American mothers showed the steepest decline in directive behavior during this time.

Given the interconnectedness of parenting and culture and the variations in parenting behaviors observed across racial and ethnic groups, it is important that intervention programs designed to promote parents' use of evidence-based parenting practices provide culturally responsive services (Gomby, 2005; Korfmacher et al., 2008). The "ideal" parenting behaviors that are widely accepted as most beneficial for child development and encouraged by many early childhood practitioners largely represent White, middle class values (Fuligni et al., 2013; Shonkoff & Fisher, 2013). Parent beliefs about appropriate child rearing practices, specifically those related to discipline, support of autonomy, and socialization, may differ based on the parent's cultural background (Calzada, Basil, & Fernandez, 2013; Cheah & Chirkov, 2008; Roche et al., 2014). Therefore, early childhood practitioners should be cognizant of the inherent cultural bias in these recommended parenting behaviors and be considerate of families' beliefs when adapting parenting interventions to meet the needs of individual families. Often these cultural adaptations include strategies that will increase families' access to, and engagement with, the intervention program (e.g., providing materials in the parent's native language, discussing culturally appropriate parenting practices, and connecting with community stakeholders; Vesely, Ewaida, & Anderson, 2014).

In addition to providing culturally responsive services, some early intervention programs make an effort to employ practitioners from similar cultural backgrounds to the families being served or intentionally match practitioners and parents on important cultural variables (e.g., ethnicity or language; Korfmacher, 2016; Paulsell, Boller, Hallgren, & Mraz Esposito, 2010). The findings on whether provider-parent match on certain demographic variables is related to

improved parent outcomes for families from racial and ethnic minority groups are mixed (Astuto & Allen, 2009; Korfmacher et al., 2008), likely because match on specific demographic variables in a crude estimate of shared culture. Notably, provider-parent match on demographic variables such as language and ethnicity may be particularly important for Latino families. Much of the research reviewed examining parenting programs targeting families from Latino backgrounds indicate that bilingual and bicultural providers are often employed in an effort to be culturally responsive (Bermudez, Zak-Hunter, & Silva, 2011; Ceballos & Bratton, 2010; Finno-Velasquez, Fettes, Aarons, & Hurlburt, 2014; Vesely et al., 2014). Additionally, provider-parent match on important demographic variables (e.g., language, race, ethnicity, immigration status) has been linked to positive parent outcomes for Latino families (Ceballos & Bratton, 2010; Finno-Velasquez et al., 2014). Latino, immigrant parents from low socioeconomic backgrounds participating in Ceballos and Bratton's (2010) evaluation of the Child Parent Relationship Therapy program implemented in the school setting reported that the facilitator, who was also a Latino immigrant, "could better understand their concerns" (p. 771). Similarly, Finno-Velasquez and colleagues (2014) found that ethnic match and language match were related to higher adherence and higher satisfaction, respectively, for Latino families participating in the cultural adaptation of an evidence-based home visiting program.

Home Visiting: an Ideal Method for Service Delivery

Home visiting is an ideal method of service delivery through which early childhood practitioners can promote positive parenting. First, home visiting services utilize a two-generational approach rooted in both developmental-ecological and attachment theories (Mortensen & Mastergeorge, 2014; Nievar, Van Egeren, Pollard, 2010). The broad aim of home visiting services is to positively impact child development by improving parent outcomes and the

parent-child relationship (Mortensen & Mastergeorge, 2014; Nievar et al., 2010; Sweet & Appelbaum, 2004). Secondly, home visiting services typically target pregnant woman and parents of children age birth to five from vulnerable groups (e.g., families from socioeconomically disadvantaged communities or families of children with a disability; Sama-Miller et al., 2016; Sweet & Appelbaum, 2004). Lastly, home visiting is a convenient method of service delivery because intervention programs are implemented in families' homes. Families are more likely to be engaged in services delivered at home due to fewer barriers (e.g., transportation or childcare) and being in their natural environment where they are most comfortable and likely to behave in typical ways (Nievar et al., 2010; Sweet & Appelbaum, 2004). The theoretical underpinnings guiding home visiting services, the populations commonly served and the home setting create the ideal context to promote positive parenting and in turn, reduce the potential negative effects of poverty on child development.

Home visiting is a method of service delivery, not an intervention (Sweet & Appelbaum, 2004). Consequently, there are myriad early prevention and intervention programs implemented in the context of home visiting (Sama-Miller et al., 2016; Mortensen & Mastergeorge, 2014; Nievar et al., 2010; Sweet & Appelbaum, 2004). These programs differ on many factors, including program models; duration, length, and intensity of services; goals; services provided (e.g., parent education or center-based therapy); families served (e.g., child age or parental risk factors); and targeted outcomes (Gomby, 2007; Nievar et al., 2010; Sweet & Appelbaum, 2004). The outcomes most often targeted through home visiting include child health; maternal health; child development and school readiness; reductions in child maltreatment; reductions in juvenile delinquency, family violence, and crime; positive parenting practices; family economic self-sufficiency; and linkages and referrals (Sama-Miller et al., 2016).

Effectiveness of home visiting. The effectiveness of early prevention and intervention programs aiming to improve parenting in the context of home visiting is variable (Howard & Brooks-Gunn, 2009; Mortensen & Mastergeorge, 2014; Nievar at al., 2010; Sama-Miller et al., 2016). Sweet and Appelbaum (2004) conducted one of the first comprehensive meta-analyses of home visiting programs and found that services delivered through home visiting enhanced parenting behaviors and attitudes. However, the positive effect sizes associated with improved outcomes were small and the practical significance of the impact of home visiting programs was questioned (Sweet & Appelbaum, 2004). More recent meta-analyses evaluating the effectiveness of home visiting programs targeting maternal behavior and the parent-child relationship in socioeconomically disadvantaged families found that home visiting programs had a small, positive mean effect on maternal behavior and parenting outcomes (Mortensen & Mastergeorge, 2014; Nievar et al., 2010). Importantly, the range in effect sizes (i.e., negligible to medium, positive effect sizes) indicate that home visiting programs targeting parenting behavior are not universally effective (Mortensen & Mastergeorge, 2014; Nievar et al., 2010).

As a result, the United States Department of Health and Human Services developed the Home Visiting Evidence of Effectiveness (HomVEE) review to evaluate the effectiveness of home visiting programs serving pregnant women and parents of children age birth to five (Sama-Miller et al., 2016). Forty-five home visiting program models were identified for review, yet only 19 program models met the DHHS criteria for an "evidence-based early childhood home visiting service delivery model" (i.e., "At least one high- or moderate-quality impact study of the model finds favorable, statistically significant impacts in two or more of the eight outcome domains; or at least two high- or moderate-quality impact studies of the model using non-overlapping analytic study samples find one or more favorable, statistically significant impacts in the same

domain."; Sama-Miller et al., 2016, p.5). Across the 19 program models that met DHHS criteria, positive effects were seen in all eight outcomes domains, though most program models showed favorable impacts on primary measures of positive parenting practices and child development and school readiness (Sama-Miller et al., 2016). Improvement in positive parenting practices, as measured by observations of parent-child interactions and parent self-report of parenting attitudes and practices, was demonstrated by fourteen of these program models[1] (Sama-Miller et al., 2016). Similar to previous meta-analyses, the HomVEE review showed that there was considerable variability in positive outcomes across different home visiting program models, and even ambiguous or negative effects in eight of the 19 program models identified as evidence-based (Sama-Miller et al., 2016).

As a consequence of the inconsistent positive effects of home visiting services on parent behavior (Gomby, 2005; Mortensen & Mastergeorge, 2014; Nievar et al., 2010; Sweet & Appelbaum, 2004), focus on investigating the conditions under which home visiting programs successfully improve parenting behavior has increased (Shonkoff & Fisher, 2013). Aspects of home visiting service delivery that have been measured in relation to treatment effects include dosage (e.g., number of home visits, length of home visits, duration of service delivery); professional qualifications of home visitors; type of intervention (e.g., brief and direct versus long and comprehensive); location of intervention; and child age (Mortensen & Mastergeorge, 2014; Nievar et al. 2010; Raikes et al, 2006; Sweet & Appelbaum, 2004). Of these potential moderating variables, dosage was the only variable found to be related to program effectiveness in both recent meta-analyses evaluating the effectiveness of home visiting programs targeting

[1] 1. Durham Connects/Family Connects, 2. Early Head Start-Home Visiting, 3. Early Start (New Zealand), 4. Family Check-Up, 5. Family Spirit, 6. Healthy Beginnings, 7. Healthy Families America, 8. Healthy Steps, 9. Home Instruction for Parents of Preschool Youngsters, 10. Maternal Early Childhood Sustained Home Visiting Program, 11. Nurse Family Partnership, 12. Oklahoma's Community-Based Family Resource and Support Program, 13. Parents as Teachers, and 14. Play and Learning Strategies – Infant

maternal behavior and the parent-child relationship (Mortensen & Mastergeorge, 2014; Nievar et al., 2010).

Two important variables related to home visiting's effectiveness have received minimal attention in the literature. First, the differential impact of home visiting services on certain subsamples of families from diverse cultural backgrounds has not been sufficiently studied. Much of the home visiting research examines the impact of home visiting services on parent outcomes in groups of families that include socioeconomic, racial, and ethnic diversity; yet little information is available on the impact of home visiting services on subsamples of families from specific racial or ethnic minority groups (Nievar et al., 2010; Sama-Miller et al., 2016). This lack of knowledge limits practitioners' ability to provide culturally-responsive home visiting services. Second, the investigation of home visitors' implementation of theoretically- and empirically-supported practices to promote positive parenting in home visiting effectiveness research has been limited. The HomVEE review found that 17 of the 19 identified evidence-based home visiting programs monitored the extent to which home visitor practices, content, and activities were consistent with those prescribed by the program (Sama-Miller et al., 2016). These findings indicate that home visiting programs may not always assess whether the intended intervention is appropriately implemented. Furthermore, few studies were found that assessed whether observed home visitor practice was associated with program effectiveness.

Limited attention to the implementation fidelity of home visiting services is particularly troubling given qualitative research suggesting a discrepancy between the program-prescribed practices and the actual practices consistently employed by home visitors. Specifically, practitioners working in home visiting programs designed to enhance parenting skills and support parent-child interactions may engage in practices that are not aligned with the program's

model, even when they are aware that these practices are not consistent with their role or the program goals (Barak, Speilberger, & Gitlow, 2014; Jones Harden, Denmark, & Saul, 2010). For example, Jones Harden and colleagues (2010) used qualitative research methods (e.g., focus group, individual interviews, and review of supervision records) to learn more about the experiences of seven home visitors working in an urban Early Head Start program. These home visitors reported that even though facilitating parent-child interactions was an important program goal, they did not always engage in this activity because they believed it was more critical to address an immediate crisis, support a parent in emotional distress, or directly interact with the child (Jones Harden et al., 2010). Similarly, Barak and colleagues (2014) conducted focus groups with 85 practitioners from three home visiting programs (i.e., Healthy Families America, Nurse-Family Partnership, and Parents as Teachers) and found that home visitors often engaged in practices that were not aligned with their defined role or the program model in order to maintain a good relationship with the family (Barak et al., 2014). The misalignment between some home visitor practices and program models could contribute to inconsistent program outcomes. Therefore, identifying home visitor practices designed to facilitate positive parenting and discerning their effectiveness for diverse samples of families is a critical component of promoting evidence-based home visiting programs.

Current Recommendations for Home Visitor Practices to Promote Positive Parenting

Home visitors aiming to alter the developmental trajectories of infants and toddlers living in poverty may provide services to children indirectly by working to improve parents' ability to support their child's development (Knoche et al., 2012; Roggman, Boyce, & Innocenti, 2008; Salisbury & Cushing, 2013). To enhance parenting skill, home visitors should employ practices that are supported by the theoretical and empirical literatures (Gomby, 2005; Kaminski, Valle,

Filene, & Boyle, 2008; Roggman et al., 2008). These practices are best understood using a framework of three overarching goals: (1) Support the Individual Family, (2) Support Parenting Skill, and (3) Support Broad Areas of Child Development (Roggman et al., 2008). Table 1 provides additional detail about each of these goals.

Support the individual family. Home visitors should work in partnership with parents to individualize services and support each unique family. Successful home visitor-parent partnerships are characterized by consistent use of collaborative practices and shared decision making (Knoche et al., 2012; Peterson et al., 2007; Roggman et al., 2008; Salisbury & Cushing, 2013).When tailoring services to individual families, home visitors should modify interventions to support parent strengths, accommodate families' needs, and be responsive to families' culture (Knoche et al., 2012; Roggman et al., 2008). It is critical that home visitors understand families' cultural values and beliefs and how these cultural factors shape parents' conceptualization of "good" parenting (Gomby, 2005; Knoche et al., 2012; Mahoney et al., 1998; Salisbury & Cushing, 2013). With this understanding, home visitors can be sure that the parenting behaviors they encourage are consistent with the parent's perspective on effective parenting; practitioners that target parenting behaviors and parent-child interactions as areas of intervention may be less effective if their approach does not align with the families' cultural values (Gomby, 2005).

Support parenting skill. Home visitors can enhance parenting skill by helping parents "observe, support, and adapt to their children's development" (Roggman et al., 2008, p.11). First, home visitors can facilitate parents' understanding of their child's behavior by commenting on, and asking questions about, the child's behavior, development, or interests (Kelly, Buehlman, & Caldwell, 2000; Roggman et al., 2008). Home visitors can build on this understanding by encouraging parents to respond to their children in ways that are positive, developmentally

appropriate, and provide sufficient levels of stimulation (Hans et al., 2013; Kelly et al., 2000). Lastly, home visitors can identify how the child responds to the parent's behavior and support parents to alter their actions to meet the child's needs and elicit the desired behavior from the child (Hans et al., 2013; Kelly et al., 2000; Peterson et al., 2007; Roggman et al., 2009; Roggman et al.,2008). Coaching and effective feedback are important tools home visitors can use to encourage parents to observe, support, and adapt to their child's development. Feedback is considered "effective" when it is specific, positive and strengths-focused, goal-oriented, instructive, and reflective (Peterson at al., 2007; Roggman et al., 2008).

Support broad areas of child development. Child development should be the primary focus of all home visits, even in times of crisis or parental distress. An increased focus on child development during home visits is associated with improved parenting skill and developmental outcomes (Roggman et al., 2008). Home visitors can directly teach families about parenting behaviors that support child development through discussion, written materials, or intervention activities (Hans et al., 2013; Kelly et al., 2000; Roggman et al., 2008; Roggman et al., 2009). In these discussions, home visitors should emphasize that the foundation for children's social-emotional, cognitive, and language development is the achievement of global skills in these broad areas of development (i.e., secure attachment, playful exploration, and good communication skills), as well as the achievement of specific developmental milestones (Roggman et al., 2008).

Empirical Support for Interventions using Recommended Home Visitor Practices to Promote Positive Parenting

Recommended practices for promoting positive parenting are often implemented as part of larger, empirically-supported intervention programs targeting child development, of which

parenting is an important focus (i.e., targeted parenting intervention programs, home-based early intervention services for children with disabilities, and community home visiting programs for vulnerable populations). Consequently, these practices have been evaluated in various combinations, rarely isolated from other program approaches. Therefore, empirical support is only available for programs or combinations of strategies, even though distinct strategies for promoting positive parenting have been recommended for home visitors. The primary foci of this summary of the empirical literature are early prevention and intervention programs that (1) were delivered in the context of home visiting, (2) targeted parenting as one important outcome, (3) described home visitor use of recommended practices as part of the larger intervention program, and (4) reported improved parenting or child development outcomes.

Targeted parenting intervention programs. The *Getting Ready Intervention* (Knoche et al., 2012; Sheridan, Marvin, Knoche, & Edwards, 2008) and the *My Baby & Me* intervention (Akai et al., 2008; Guttentag et al., 2014) are intervention programs designed to enhance early parenting skills and support the parent-child relationship through use of many of the recommend practices for improving parenting. The *Getting Reading Intervention* is a 16-month relational intervention targeting positive parenting behaviors (e.g., warmth and sensitivity, encouragement of autonomy, support for children's learning, and use of appropriate directives) that was designed to be a framework through which existing early childhood services could be implemented (Knoche et al., 2012). Practitioners implementing the *Getting Ready Intervention* employ many recommended practices for facilitating positive parenting, including triadic and collaborative consultation strategies that are responsive to individual families' strengths, needs, and cultural values (Knoche et al., 2012). The *Getting Reading Intervention* was evaluated with a sample of racially and linguistically diverse parents from low socioeconomic backgrounds who

were receiving Early Head Start services. Parents who participated in the *Getting Ready Intervention*, in addition to Early Head Start, showed increased warmth; sensitivity; support for children's autonomy; increased likelihood of using appropriate directives; and increased likelihood of providing appropriate support for children's learning compared to those parents who received Early Head Start services alone (Knoche et al., 2012).

The core of the *My Baby & Me* intervention program is the *Play and Learning Strategies (PALS)* responsiveness curriculum; an empirically-supported program designed to improve parents' contingent responsiveness, warmth and sensitivity, ability to support children's focus of attention and interest, and ability to provide high quality language input (Akai et al., 2008; Guttentag et al., 2014). The *PALS* curriculum incorporates several recommended practices for promoting positive parenting, including direct teaching of appropriate parenting behaviors, coaching, providing effective feedback, and reinforcing the use of these behaviors through video self-reflection (Akai et al., 2008; Guttentag et al., 2014). To supplement the *PALS* curriculum, the *My Baby & Me* intervention layered on additional recommend practices, including providing information on child development (e.g., developmental milestones, children's health and safety, and developmentally appropriate expectations) and encouraging appropriate physical stimulation (e.g., infant massage training; Akai et al., 2008; Guttentag et al., 2014). In two separate randomized control trials conducted with mothers from mostly racial and ethnic minority groups and low socioeconomic backgrounds, mothers who participated in the *My Baby & Me* intervention demonstrated increased positive parenting behaviors when compared to mothers in the control group. Specifically, mothers who received the *My Baby & Me* intervention demonstrated increased warmth, responsiveness, quality verbal input, and teaching behaviors, and fewer negative parenting behaviors (e.g., intrusiveness and rigidity; Akai et al., 2008;

Guttentag et al., 2014). In addition, Guttentag and colleagues (2014) found that these improvements in parenting behavior were associated with improvements in later child outcomes, including faster rates of development in social engagement; better regulation of negative emotions; greater gains in expressive language; increases in complexity of play; and fewer problem behaviors.

Home-based early intervention services for children with disabilities. Practitioners providing early intervention services to infants and toddlers diagnosed with a disability through Part C may increase parent engagement through use of recommended practices to promote positive parenting, specifically working in partnership with parents, providing effective feedback, and coaching (Salisbury & Cushing, 2013). Salisbury and Cushing (2013) examined the differences in early interventionists' facilitation of parent-child interactions when practitioners used an indirect model of service delivery (i.e., collaborative practices, coaching caregiver-child interactions, and use of everyday activities and routines) versus when the practitioner provided direct instruction to the child. A small sample of families from an urban, culturally, linguistically, economically, and racially diverse community was randomized into the coaching, triadic condition or the provider-led, direct instruction condition; each provider implemented both conditions, but with different families on their caseload (Salisbury & Cushing, 2013). Results showed that caregivers in the coaching, triadic condition, which focused on improving parent-child interactions, were more engaged during home visits; specifically, caregivers led more interactions, caregivers and providers engaged in more conversation about the child, and providers explained what they wanted caregivers to do and why more often (Salisbury & Cushing, 2013).

Community home visiting programs for vulnerable groups. Home visitors' implementation of recommended practices to promote positive parenting for families receiving Early Head Start services is associated with increased parent engagement and improved child outcomes (Peterson et al., 2007; Roggman et al., 2009). Peterson and colleagues (2007) investigated home visitors' use of coaching strategies to support positive parent-child interactions in a sample of socioeconomically diverse, mostly Caucasian families receiving Early Head Start services. The likelihood of parent engagement increased when home visitors facilitated positive parent-child interaction using coaching and modeling strategies versus simply discussing child development topics; specifically, the likelihood of parent engagement increased from 26 percent when parents and home visitors discussed child development topics to 47 percent when home visitors used modeling strategies and 62 percent when home visitors used coaching strategies (Peterson et al., 2007). Similarly, Roggman and colleagues (2009) explored home visitors' use of recommended practices (e.g., individualizing services; engaging in collaborative strategies; and guiding parents to read infants cues and respond to the emotional and physical needs of their children) to facilitate positive and responsive parent-child interactions. Participants were mostly Caucasian mothers from low socioeconomic backgrounds. Results showed that children whose families participated in Early Head Start had improved attachment and cognitive ability compared to children whose families did not participate in Early Head Start services (Roggman et al., 2009).

Hans and colleagues (2013) examined the effects of a community doula program designed to increase positive parent-child interactions, in addition to supporting mothers through the birthing process and postpartum period. Doulas implemented many recommend practices during home visits, including encouraging mothers to observe their infants, identify infants'

needs, and respond appropriately by providing physical and cognitive stimulation (Hans et al., 2013). A randomized control trial was conducted to evaluate the impact of this community doula program; participants were young African-American mothers from low socioeconomic backgrounds. Mothers who received home visits from the community doulas responded to infant distress faster and provided more encouragement and guidance to infants compared to mothers who did not receive home visits from the community doulas. Unfortunately these positive effects were short-term; there were no differences in parent-child interactions at follow-up assessments (i.e., ages 12 and 24 months; Hans et al., 2013). Additionally, Hans and colleagues (2013) showed that infants whose mothers received home visits from the community doulas were less likely to have long period of distress than infants of mothers who did not receive the intervention.

Lastly, Kelly and colleagues (2000) investigated home visitors' use of video feedback to increase positive parent-child interactions and parent responsiveness with families living in transitional or emergency housing shelters. The recommended practices employed by these home visitors include providing positive, instructive, and contingent feedback, and working in partnership with parents to understand their values and interaction goals (Kelly et al., 2000). The parent-child interactions of six mother-child dyads from mostly European American backgrounds were examined pre- and post- intervention. Results showed that use of effective video feedback and live coaching significantly improved mother's parenting behaviors, including social-emotional growth fostering, contingency behavior with children, and cognitive stimulation (Kelly et al., 2000).

Each of the empirically-supported programs reviewed offered services that included home visitor implementation of recommend practices to enhance parenting skill, support the

parent-child relationship, and improve child development outcomes. Different recommended practices were used by different programs and in varying combinations, but practices that were common to most programs include working in partnership with parents through consultation, shared decision making, and other collaborative strategies; supporting parents' use of positive parenting through coaching and providing effective feedback; and directly teaching appropriate parenting behaviors and ways to support child development. This empirical evidence indicates that early prevention and intervention programs that include these home visitor practices as part of a larger intervention package positively impact parenting and child development outcomes. Although recommended practices were described as part of the comprehensive programs in these studies, the extent to which home visitors used these practices was not directly observed or reported. Consequently, little is known about the degree to which home visitors *actually* use these beneficial practices to promote positive parenting.

Observed Use of Recommended Home Visitor Practices

Only a few studies have been conducted that quantitatively assessed implemented home visitor practices through observational measures. These studies were conducted in both early intervention (i.e., Part C services) and comprehensive prevention (e.g., Early Head Start) home visiting programs. A brief review of these studies provided below reveals the extent of the literature and highlights areas where additional information is needed.

Home-based early intervention services. Two studies were found in the literature that examined early intervention practitioners' use of collaborative and coaching strategies to facilitate parent-child interactions in two independent programs (Campbell & Sawyer, 2007; Peterson et al. 2007). These practitioners provided early intervention services through home-based, Part C programs; Part C programs provide early intervention services to children birth to

age three who have an identified disability (e.g., physical disability , language delay, or developmental delay; Campbell & Sawyer, 2007; Peterson et al., 2007). See Table 2 for a summary of key variables in each study.

Sample. The early interventionists in each of these studies represented a range of disciplines including special education, occupational therapy, physical therapy, and speech-language pathology. Overall, these practitioners were highly educated; all had Bachelor's degrees and over half had advanced training (e.g., Master's degrees). In addition, the participating practitioners had a wide range of experience working in early intervention, from 0 to 18 years. These two samples of early interventionists were not diverse demographically; practitioners were mostly women and mostly Caucasian (Campbell & Sawyer, 2007; Peterson et al., 2007).

For these two studies, the majority of participants (i.e., practitioners, parents, and children) were Caucasian. It is important to note that Campbell and Sawyer (2007) only reported data on child race or ethnicity and Peterson and colleagues (2007) only reported data on parent race or ethnicity. The children served were diagnosed with a variety of disabilities, but most children had a developmental delay, speech and language delay, or a physical or motor disability. Most of these children were between 12 and 36 months of age (Campbell & Sawyer, 2007; Peterson et al., 2007). See Table 2 for a more detailed account of the demographic information provided for the participating home visitors, parents, and children in these two studies.

Measures of home visitor practice. The researchers in these studies used the *Home Visit Observation Form*, the *Home Visit Observation Form-Modified*, and the *Natural Environments Rating Scale* to measure home visitor practice (Campbell & Sawyer, 2007; Peterson et al., 2007). The *Home Visit Observation Form* and the *Home Visit Observation Form-Modified* are 30-

second, partial interval recording systems that assess the frequency with which certain practices are used by observing home visits in real time or through video recording. Variables that were documented using the *Home Visit Observation Form* and the *Home Visit Observation Form-Modified* included the individuals present during the home visit; the primary interaction partners; the content of the interactions (e.g., child-focused, parenting, or family issues); the nature of the early interventionist's behavior (e.g., direct teaching with child, modeling for parent, using coaching strategies, or providing information); and the nature of the parent's behavior (e.g., working with the child, watching the interventionist work with the child, or engaging in discussion with the home visitor; Campbell & Sawyer, 2007; Peterson et al., 2007).

The *Natural Environments Rating Scale* is an observational tool used to summarize home visitor practice during child-focused activities (Campbell & Sawyer, 2007). Raters watch a video recording of an entire home visit to provide a value in the following categories: setting; type of activity; engagement of child; the leader of the interaction; type of materials used; role of the caregiver; and role of the home visitor (Campbell & Sawyer, 2007). The last four categories (i.e., the leader of the interaction, type of materials used, role of the caregiver, and role of the home visitor) are used to classify the home visit as either "traditional" (e.g., specialized materials supplied by the home visitor are used; the home visitor works directly with the child; the parent observes the home visitor interacting with the child) or "participation-based" (e.g., materials occurring in the natural environment are used; the home visitor utilizes coaching strategies to facilitate parent-child interaction; the parent interacts with the child with the support of the home visitor; Campbell & Sawyer, 2007). Each of these four categories is assigned a value (i.e., 0 for traditional and 1 for participation-based); home visits with total scores higher than 2 were considered participation-based (Campbell & Sawyer, 2007).

Observed home visitor practice. Both Campbell and Sawyer (2007) and Peterson and colleagues (2007) found that home-based early interventionists providing Part C services spent most of the home visit engaged in activities and discussion focused on child development. In addition, a majority of these Part C home visitors employed a traditional approach to service delivery, characterized by working directly with the child. Usually the practitioner, parent, and child were all involved in the interactions observed; however, the practitioner generally spent more time directly teaching the child or leading the activity (e.g., controlling materials) than engaging in practices that facilitated parent-child interactions. Home-based early interventionists who utilized a more collaborative approach supported parent-child interactions by allowing parents and children to lead the interaction; modeling appropriate behaviors for parents; and coaching parents using feedback as they interacted with their child (Campbell & Sawyer, 2007; Peterson et al., 2007). When home visitors utilized these strategies, parents led more activities and spent more time interacting with their child (Campbell & Sawyer, 2007; Peterson et al., 2007).

Comprehensive prevention home visiting programs. Four studies were found in the literature that examined home visitors' use of practices that support positive parenting in comprehensive early prevention programs; the goal of many of these programs was to support child development by building parent skill. These early prevention programs served families of children ages birth to three from low socioeconomic backgrounds (Aikens, Xue, Bandel, Caronongan, Vogel, & Boller, 2015; Hallgren, Boller, & Paulsell, 2010; Korfmacher, Sparr, Chawla, Fulford, & Fleming, 2012; Peterson et al., 2007). Two of these studies were conducted in Early Head Start programs; Peterson and colleagues (2007) conducted a small scale study in conjunction with the Early Head Start Research and Evaluation Project to investigate home

visitors' use of coaching strategies to promote positive parent-child interactions. In their recent report, Aikens and colleagues (2015) detailed initial results of the Early Head Start Family and Child Experiences Survey (Baby FACES), a national, longitudinal descriptive study of 89 Early Head Start programs. In the third study, Hallgren, Boller, and Paulsell (2010) evaluated the Partnering with Families for Early Learning (PFEL) program through completion of a small scale pilot study. Partnering with Families for Early Learning is a new, relationship-based home visiting program established in Washington state, designed to support positive parent-child relationships and children's social-emotional development (Hallgren, Paulsell, & Del Grosso, 2010). Lastly, Korfmacher and colleagues (2012) reported the findings from the evaluation of the Prevention Initiative (PI) of the Illinois State Board of Education, which provides state-wide home visiting services focused on child development and family support. See Table 3 for a summary of key variables in each study.

Sample. Overall, these four studies provided few details about program participants. Two of the studies reported the demographic characteristics of the participating home visitors and families (Korfmacher et al., 2012; Peterson et al., 2007). Generally, home visitors were highly educated (i.e., most had Bachelor's degrees) with length of time working in the field ranging from 0 to 19 years (Korfmacher et al., 2012; Peterson et al., 2007). The majority of home visitors in both programs were female. Only Korfmacher and colleagues reported the race or ethnicity of the participating home visitors; the majority of the home visitors were Caucasian and about 40 percent were from racial or ethnic minority backgrounds (i.e., African American, Latino, and American Indian/Alaskan). Of note, the home visitors participating in the Peterson and colleagues study (2007) were employed by Early Head Start as either child development specialist or family development specialist; child development specialist visited families weekly

to address child needs and family development specialist visited families biweekly to address family needs. Both sets of home visitors had similar professional backgrounds (e.g., most earned bachelor's degrees and were relatively inexperienced; Peterson et al., 2007).

An ethnically diverse sample of parents participated in the Korfmacher and colleagues (2012) study; approximately one third of parents identified as Caucasian, Latino, and African American, respectively. In the Peterson and colleagues (2007) study, the participating parents were mostly mothers, Caucasian, and from a range of incomes and education levels. Although Hallgren and colleagues (2010) did not report home visitor and family demographic information for the participants involved in the pilot study of the Partnering with Families for Early Learning (PFEL) program, demographic information for the larger population served by PFEL was available in a related brief (Hallgren et al., 2010). PFEL targeted low income pregnant or postpartum women who were not first-time parents or who spoke a language other than English or Spanish. Public health nurses and social workers with home visiting experience served as the home visitors for PFEL (Hallgren et al., 2010). See Table 3 for more detailed demographic information for the samples of these four studies.

Measure of home visitor practice. The researchers in these studies used two different versions of the *Home Visit Rating Scales* (i.e., *Home Visit Rating Scales – Adapted* and *Home Visit Rating Scales – Adapted and Extended*), the *Home Visit Characteristics and Content Form*, and the *Home Visit Observation Form-Revised* to measure home visitor use of effective practices (Aikens et al., 2015; Hallgren et al., 2010; Korfmacher et al., 2012; Peterson et al., 2007). The *Home Visit Rating Scales*, which was used in three of the four studies, is an observational measure of home visiting that assesses home visit quality, which is characterized by home visitor strategies and home visitor effectiveness (Aikens et al., 2015; Hallgren et al., 2010; Korfmacher

et al., 2012). Both versions of the *Home Visit Rating Scales* (i.e., the *Adapted* and the *Adapted and Extended* versions) have two composites: the Home Visitor Strategies/Home Visit Practice scale and the Home Visitor Effectiveness/Participant Engagement scale. The Home Visitor Strategy scale has four subscales: Responsiveness to Family, Relationship with Family, Facilitation of Parent-Child Interaction, and Non-Intrusiveness/Collaboration. The Home Visitor Effectiveness/Participant Engagement scale has three subscales: Parent-Child Interaction, Parent Engagement, and Child Engagement (Aikens et al., 2015; Hallgren et al., 2010; Korfmacher et al., 2012). It is important to note that the Home Visitor Effectiveness scale measures parent and child behavior, not home visitor practices. Unlike the measures used in Part C services, the *Home Visit Rating Scales* does not use an interval recording system, rather a Likert scale is used to assign a rating to each item on the seven subscales, which represent distinct home visitor practices and participant behaviors. The *Home Visit Rating Scales- Adapted* uses a 5-point Likert scale with anchor points at 1 (inadequate/minimal), 3 (adequate/moderate), and 5 (good) (Aikens et al., 2015; Hallgren et al., 2010). The *Home Visit Rating Scales- Adapted and Extended* uses a 7-point Likert scale; the first 5 points in the Likert scale have the same qualitative anchors as the *Home Visit Rating Scales- Adapted*. Point 7 on this Likert scale is anchored with the qualitative description "excellent" (Korfmacher et al., 2012).

Hallgren and colleagues (2010) used the *Home Visit Characteristics and Content Form* in conjunction with the *Home Visit Rating Scales- Adapted* to gather additional information including the length of home visits, the participants present during each home visit, the language used during home visits, and the content of home visits (e.g., activities, percentage of time dedicated to each activity, and topics covered; Hallgren et al., 2010). Lastly, Peterson and colleagues (2007) used the *Home Visit Observation Form - Revised* to assess the individuals

present during the home visit, the primary interaction partners, the content of the interactions (e.g., child development, parenting, or family issues), and the nature of the interventionist behavior (e.g., direct teaching with child, using coaching strategies, or providing information). As described earlier, the *Home Visit Observation Form - Revised* is a 30-second, partial interval recording system used to code the behavior of home visitors (Peterson et al., 2007).

Observed Home Visitor Practice. Results of the three studies that utilized a version of the *Home Visit Rating Scales* indicate that overall, home visitors' use of strategies to promote positive parenting is "adequate" to "good" (Aikens et al., 2015; Hallgren et al., 2010; Korfmacher et al., 2012). The mean scores on the Home Visitor Strategy scale of the *Home Visit Rating Scales*, which assessed home visitor practices, were 4.1 out of 5 (Hallgren et al., 2010), 3.2 to 3.4 out of 5 (across 4 years; Aikens et al., 2015), and 3.7 out of 7 (Korfmacher et al., 2012). Although the two different versions of the *Home Visiting Rating Scales* used Likert scales of different lengths (i.e., a 5-point Likert scale and a 7-point Likert scale), both versions of the measure used the same qualitative anchors for the first 5 points of the Likert scale (i.e., "inadequate" – 1; "adequate" – 3; and "good" – 5), facilitating comparison across studies that used different versions of the measure. The mean scores on the Home Visitor Strategy scale found in these few studies suggest that home visitors' use of effective practices designed to promote positive parenting was acceptable, though not ideal.

Review of the standard deviations on the Home Visitor Strategy scale across the three studies indicate that there is considerable variability in home visitor practices (Aikens et al., 2015; Hallgren et al., 2010; Korfmacher et al., 2012). Hallgren, Boller, and Paulsell (2010) found the smallest standard deviation, .55 on the 5 point Likert scale. The standard deviations on the Home Visitor Strategy scale of the other two studies were close to one (i.e., .82 to 1.03) on

both the 5-point Likert scale and the 7-point Likert scale (Aikens et al., 2015; Korfmacher et al., 2012). These results suggest that there may be practically significant differences between home visitors in the strategies used to support parenting. Finally, Aikens and colleagues (2015) were the only researchers to examine home visitor practices over time. Findings from this one study suggest that home visitor practice is stable over time; mean scores on the Home Visitor Strategy scale were 3.2 for the initial assessment in year one and 3.4 for the fourth assessment conducted in year four. Differences in mean level scores on the Home Visitor Strategy scale from year to year were not statistically significant (Aikens et al., 2015).

In two of the four studies reviewed, the *Home Visit Characteristics and Content Form* and the *Home Visit Observation Form-Revised* were used to assess the content of the home visits, including specific activities and strategies observed (Hallgren et al., 2010; Peterson et al., 2007). Data collected using these measures provide additional detail related to observed home visitor practices, which adds to the broad understanding of home visitor practice gained through the *Home Visit Rating Scales*. Results of the *Home Visit Characteristics and Content Form* and the *Home Visit Observation Form-Revised* reveal that home visitors engage in certain practices more frequently than others. Home visitors spent a large portion of the observed home visits engaged in activities related to child development (e.g., assessments, parent education, caretaking discussions) and supporting family functioning (e.g., discussing family concerns and building relationships with families; Hallgren et al., 2010; Peterson et al., 2007). Specifically, Hallgren and colleagues (2010) found that home visitors spent 27 percent of the time during the observed home visits engaged in child-focused activities (e.g. assessments and parent education), and 45 percent of the time during the observed home visits engaged in family-focused activities (e.g., providing family support, case management, sharing cultural traditions, and relationship

building). Similarly, Peterson and colleagues (2007) found that Early Head Start home visitors who were child development specialists spent 60 percent of the time during the observed home visits focused on child development (e.g., discussing parenting issues or child health and safety) and Early Head Start home visitors who were family development specialists spent 74 percent of the time during the observed home visits focused on family issues (e.g., basic needs of the family, parent employment or education, and relevant community resources).

Although home visitors spent a substantial portion of the home visit focused on child development, a small portion of this time was dedicated to activities that facilitate parent-child interactions and enhance parent-child relationships; home visitors were not frequently observed facilitating, coaching, or providing feedback during parent-child interactions (Hallgren et al., 2010; Korfmacher et al., 2012; Peterson et al., 2007). Specifically, Hallgren and colleagues (2010) found that home visitors spent 15 percent of the time during the observed home visits supporting parent-child interactions, including modeling appropriate interaction with the child and providing feedback during parent-child interactions (Hallgren et al., 2010). Similarly, Peterson and colleagues (2007) found that home visitors who were child development specialists spent 13 percent of the time during the observed home visits modeling appropriate interaction with the child and 6 percent of the time during the observed home visits coaching parents during parent-child interactions. These results suggest that home visitors seldom engage in strategies that facilitate parent-child interactions, even when a substantial portion of the home visit is dedicated to child development activities and discussion.

Summary of Observed Home Visitor Practice

The examination of observed home visitor practices in programs serving young children and their families from low socioeconomic backgrounds has been limited. Few studies were

found in the literature that used observational measures to investigate the strategies that child development-focused home visitors used during home visits. The small number of studies found is a reflection of the need for additional research examining home visitor practices through observational measures. Definitive conclusions about home visitor practices cannot be drawn due to the lack of empirical information available; however, some patterns in home visitor practice were identified across these studies. First, home visitors in early prevention and intervention programs often engaged in parent education activities and general discussions about child development; to a lesser extent, home visitors directly facilitated positive parent-child interactions. Furthermore, information gathered using observational measures of home visitor practice suggests that the quality of home visitor strategies used to support parenting is adequate to good, although there is substantial variability. Therefore, further exploration of variability in observed home visitor practices is warranted.

Future research in this area should investigate potential reasons for the variability in home visitor practices, such as home visitor professional qualifications (e.g., level of education, area of training, length of experience) or home visitor-parent match on important demographic variables (e.g., race, ethnicity, or language). The existing literature examining the relationship between home visitor professional qualifications and improved parenting outcomes presents conflicting evidence (Mortensen & Mastergeorge, 2014; Nievar et al., 2010). None of the studies identified that reported observed home visitor practice examined home visitor qualifications in relation to observed practices; therefore, additional research is needed to determine if differences in home visitor professional qualifications are associated with variability in home visitor practice.

Home visitor-parent match on culturally salient demographic variables is another potential source of variability in home visitor practice that has received little attention in the literature. Some home visiting programs serving families from racial or ethnic minority backgrounds attempt to match home visitors and parents on certain demographic variables in an effort to provide more culturally responsiveness services; however, the impact of home visitor-parent match on home visitor practice is unknown. When home visitor-parent match is examined in the literature, it is usually considered in relation to parent outcomes (Astuto & Allen, 2009; Korfmacher et al., 2008). Moreover, our understanding of how home visitor-parent match impacts parent outcomes is minimal due to the mixed findings on this relationship in the literature (Astuto & Allen, 2009; Korfmacher et al., 2008). Additional research is needed to determine whether pairing home visitors and parents based on demographic similarities indeed has a positive effect on home visitor practice. It is important to note that while of interest, home visitor-parent match should not replace use of the recommended procedures and adaptations that enhance the cultural responsiveness of service delivery and increase the cultural competence of practitioners (e.g., working in partnership with stakeholders from the community and providing on-going training and professional development; Vesely et al., 2014). A simple match on culturally salient variables such as race, ethnicity, or language does not necessarily indicate shared cultural beliefs or values. The potential implications and limitations of matching home visitors and families on specific demographic variables in an effort to provide more culturally responsive services will be discussed in more detail in the Discussion section.

Few of the studies reviewed investigated the direct relationship between home visitor use of recommended practices and parent outcomes, including enhanced parenting skill and improved parent-child interactions. Similarly, no meta-analyses were found that assessed

observed home visitor practice as a moderator of intervention effectiveness. Additional information is needed to understand how home visitor use of recommended practices impacts individual families. Specifically, exploration of differences in home visitor practice between families and the relationship between home visitor practice and improved parenting outcomes would be beneficial. Understanding more about home visitor practice and how home visitors support individual families will inform improvements in service delivery.

Finally, an important gap in the literature evaluating home visiting effectiveness is the lack of information regarding the differential impact of home visiting services on subsamples of families from diverse cultural backgrounds (Nievar et al., 2010; Sama-Miller et al., 2016). The few studies that reported observed home visitor practices provided very little demographic information about the participating home visitors and families. Subsequently, understanding of how parenting interventions implemented in the context of home visiting function differently for subsamples of families from specific racial or ethnic minority groups is limited. This limited understanding is troubling given that differences in parenting behaviors have been observed based on race and ethnicity (Fuligni et al. 2013; Fuligni & Brooks-Gunn, 2013; Ispa et al., 2013; Mesman et al., 2012) and that differential impacts of home visiting on child development outcomes have been documented (Manz et al., 2015). In addition, the empirically-supported parenting strategies that many home visiting programs encourage parents to use are largely based on White, middle class ideals (Shonkoff & Fisher, 2013). Therefore, research exploring home visitor practice with subsamples of families from specific racial or ethnic minority groups would improve our understanding of how families from different cultural backgrounds experience and are affected by home visiting services. Home visitor-parent match and the relationship between

use of recommended practices and parenting outcomes for these subsamples are of particular interest.

The Current Study

The purpose of the current study was to add to the limited research using observational measures to assess implementation of home visitor practices associated with improved parenting behaviors and enhanced parent-child interactions. This study replicated previous studies by using an observational measure of home visiting practice, the *Home Visit Rating Scales*, to assess home visitor practice in an Early Head Start program. Additionally, this study expanded on previous research and addressed important gaps in the literature by examining the degree of variability in home visitor practice and possible sources of variability (e.g., home visitor qualifications and home visitor-parent cultural match); exploring the relationship between home visitor practice and later parenting outcomes; and examining home visitor practice in a subsample of Hispanic families. Several research questions were developed to guide the examination of home visitor practices:

(1) To what extent do home visitors in an Early Head Start program use recommended practices to promote positive parenting, as reflected in mean level scores and item level trends on the Home Visit Practice Scales of the *Home Visit Rating Scales – Adapted and Extended* across all home visitors? It was hypothesized that home visitor engagement in strategies that support positive parenting would be adequate to good, given the ratings of home visitor practice found in the literature. (1a) To what extent does home visitors' use of recommended practices differ between home visitors, as reflected in the means, standard deviation and range of performance on the Home Visit Practice Scales across home visitors? Based on findings in the current literature, it was hypothesized that there would be substantial variability between home visitors

in their utilization of specific practices. (1b) How do the scores on the Home Visit Practice Scales differ between families for individual home visitors, as reflected in the standard deviations and range of performance on the Home Visit Practice Scales within each cluster of a home visitor and her assigned families? There were no *a priori* hypotheses due to the exploratory nature of this question; no literature was found investigating the variability of a single home visitor's practice with different families on her caseload. (1c) To what extent do home visitors in an Early Head Start program utilize practices to promote positive parenting with the subsample of Hispanic families, as reflected in mean level scores, standard deviations, range of performance, and item level trends on the Home Visit Practice Scales of *the Home Visit Rating Scales – Adapted and Extended*. Due to the exploratory nature of this question and the lack of research examining home visiting services in subsamples of families from racial and ethnic minority groups, there were no *a priori* hypotheses.

(2) Does home visitor experience, characterized by years working in the field of home visiting, predict mean level scores on the Home Visit Practice Scales for the overall sample? (2a) Does home visitor experience, characterized by years working in the field of home visiting, predict mean level scores on the Home Visit Practice Scales for the subsample of Hispanic families? There were no *a priori* hypotheses for these research questions given the mixed findings on the relationship between home visitor professional qualifications and service delivery found in the literature. It is important to note that previous research exploring the relationship between home visitor professional qualifications and home visiting outcomes also studied level of education as a variable of interest. Limited variability in level of education amongst the home visitors who participated in the current study precluded this analysis; therefore, only years of experience were explored to further understand variability in home visitor practice.

(3) Do differences in the mean level of performance on the Home Visit Practice Scales differ according to the match between home visitor and parent on race/ethnicity, native language, and immigration status in the overall sample? (3a) Do differences in the mean level of performance on the Home Visit Practice Scales differ according to the match between home visitor and parent on race/ethnicity, native language, and immigration status in the subsample of Hispanic families? There were no *a priori* hypotheses for these research questions given the mixed findings in the literature examining the relationship between home visitor-parent match on culturally salient demographic variables and service delivery.

(4) Does home visitor practice, as measured by mean level scores on the Home Visit Practice Scales, predict the quality of parent-child interactions in the overall sample, which reflect parents' use of positive parenting behaviors? (4a) Does home visitor practice, as measured by mean level scores on the Home Visit Practice Scales, predict the quality of parent-child interactions in the subsample of Hispanic families? It was hypothesized that greater implementation of recommended home visitor practices would predict higher quality of parent-child interactions for both the overall sample and the subsample of Hispanic families, given the positive relationship between these practices and parent behaviors of families from diverse backgrounds found in the literature.

Method

Participants and Setting

Recruitment. Participants were recruited through the large-scale evaluation of a home-based book sharing intervention developed in partnership with an Early Head Start program located in an ethnically diverse community in eastern Pennsylvania (Manz, Roggman, & Power, 2012). Recruitment occurred over a two-year period, across two randomized control trials

evaluating the book sharing intervention of the larger project; these two samples were combined to form the total sample of the current study. Twenty-one home visitors employed by the partnering Early Head Start program were invited to participate in the large-scale evaluation project. Nineteen of the 21 home visitors invited to participate were successfully recruited for the current study; the remaining two home visitors were no longer employed by the Early Head Start program when the recruitment phase ended. Doctoral students provided additional information about the larger study and obtained written informed consent from the 19 home visitors (see Appendix A for the home visitor consent form). Home visitors then completed the home visitor demographic form (Appendix B). Of the 19 home visitors who consented to participate in the larger study, 18 home visitors recruited families from their caseload to participate in the larger evaluation project. Thus the final sample of home visitors for the current study was 18.

Each of the 18 participating home visitors had 7 to 9 families on their Early Head Start caseload, resulting in 136 families eligible to participate in the larger study at the time of initial recruitment. It is important to note that although the number of families on each home visitor's caseload remained fairly steady, the individual families comprising each home visitor's caseload was constantly changing; new families enrolled in the program regularly and participating families discontinued Early Head Start services for a variety of reasons (e.g., the family was no longer interested in receiving services, the family moved, the child transitioned to another program due to the child's age). Home visitors participating in the current study were encouraged to recruit families who enrolled in the project after the study began; therefore, the actual number of families enrolled in Early Head Start services throughout the duration of the study was slightly higher than 136.

Home visitors completed training sessions that detailed the procedures of the larger evaluation project before recruiting families. Home visitors then used flyers to introduce the larger study and invite all families on their caseload to participate. Ninety-four families total agreed to participate in the larger study (i.e., signed consent forms; see Appendices C and D for the parent consent forms); the number of participating families per home visitor ranged from 1 to 8. Baseline assessments were administered after families were recruited to the larger study. Eighty-eight of the 94 families recruited completed all measures of the baseline assessment; for various reasons (e.g., child no longer enrolled in Early Head Start, family no longer interested in participating in the study, or family in crisis), six families did not complete baseline assessments and could not be included in the current study. The final sample of families participating in the current study was 88.

Home visitor characteristics. Eighteen home visitors participated in the current study. Refer to Table 4 for detailed information regarding the demographic characteristics and professional background of the participating home visitors. Home visitors were women from diverse racial/ethnic backgrounds, though most home visitors self-identified as either "Hispanic/Latino" (i.e., 50 percent) or "White" (i.e., 38.9 percent). Most of the home visitors were born in the United States mainland (n = 14). Of the 4 home visitors who immigrated to the United States mainland, most were born in Spanish-speaking countries (e.g., Puerto Rico and Peru). Together these 4 home visitors had been living in the United States for an average of 17.5 years. Two-thirds of the home visitors reported that their native language was English (n = 12). The remaining 6 home visitors reported that Spanish was their native language. All of the native Spanish-speaking home visitors and 2 of the native English-speaking home visitors were bilingual, speaking both English and Spanish.

Overall, professional qualifications (i.e., level of formal education and years of experience) of the participating home visitors varied. Generally, the home visitors had high levels of formal education; a majority of the home visitors (n = 15) received a Bachelor's degree from a four-year college, while the remaining home visitors earned either a Child Development Associate (CDA) degree (n = 1) or a Master's degree (n = 2). This sample of home visitors meets the qualification requirements of the recently revised Head Start Performance Standards that require home visitors to possess "a minimum of a home-based CDA credential or comparable credential, or equivalent coursework as part of an associate's or bachelor's degree" (45 CFR 1302.91; United States Department of Health and Human Services, 2016, p. 56).

There was greater variability among participating home visitors in the years of experience working in home visiting programs. The years of experience working with the partnering Early Head Start program of the current study ranged from less than one year to over 19 years of experience, with the average across home visitors around 3 years (M = 3.04, SD = 4.94). Additionally, 10 of the 18 home visitors had experience working for another home visiting program prior to their employment with Early Head Start; on average, these home visitors worked with the previous home visiting program for about 3 years before they began working in their current position. Together, these data suggest that the average years of experience working in the field of home visiting also ranges from less than one year of experience to over 19 years of experience, with an average of over 4 years (M = 4.66; SD = 4.77). All home visitors who served participating parent-child dyads from the full sample also served at least one family from the Hispanic subsample; therefore the demographic characteristics of home visitors for the full sample and the Hispanic subsample are the same.

Parent characteristics. Eighty-eight families (i.e., parent-child dyads) participated in the current study. Refer to Table 5 for detailed demographic information of the parents comprising the full sample. All participating parents were the child's primary caregiver and the recipient of the Early Head Start services. Participating parents were primarily mothers (i.e., 93.2 percent), with few fathers also participating in the current study (n = 5). On average, parents were about 29 years of age (M = 28.77; SD = 6.74). The majority of parents identified their ethnicity as Hispanic (i.e., 61.4 percent) and their race as either White (i.e., 36.3 percent) or Other (35.2 percent). Roughly half of the participating parents (i.e., 52.3 percent) were born in the United States mainland, while the remaining parents immigrated to the United States mainland from 10 different countries, including Puerto Rico, Dominican Republic, and Mexico. On average, those parents who were not born in the United States had been living in the United States for 11 years (M = 11.10, SD = 7.35). Most parents reported Spanish (i.e., 44.3 percent) or English (i.e., 45.5 percent) as their native language. While level of parent education ranged from less than ninth grade to beyond a college degree, most parents either completed some high school (i.e., 19.3 percent), graduated from high school (i.e., 26.1 percent), or graduated from high school and completed some college (i.e., 34.1 percent). Parent employment status also varied; 20.5 percent of parents worked full-time, 21.6 percent of parents worked part-time, and 58 percent of parents were not employed.

Fifty-four families (i.e., parent-child dyads) comprised the Hispanic subsample; parents included in the Hispanic subsample identified as "Hispanic" on documentation found in the Early Head Start records. See Table 5 for an exhaustive list of the demographic information collected for the parents in Hispanic subsample. Most parents in the Hispanic subsample identified their race as either White (i.e., 42.6 percent) or Other (i.e., 42.6 percent), which is

consistent with the full sample. Unlike the full sample, more than half of the parents in the Hispanic subsample (i.e., 57.4 percent) were born outside of the United States mainland; all of these parents were born in Spanish-speaking countries (i.e., Dominican Republic, Ecuador, Honduras, Mexico, Nicaragua, and Puerto Rico). On average, those parents in the Hispanic subsample who were not born in the United States had been living in the United States for 11 years (M = 11.08, SD = 6.66). Unsurprisingly, most parents in the Hispanic subsample reported Spanish as their native language (i.e., 64.8 percent). The participating parents in the Hispanic subsample were mostly were mothers (n = 51) of about 28 years of age (M = 28.35; SD = 6.11). Most parents in the Hispanic subsample either graduated from high school (i.e., 31.5 percent) or graduated from high school and completed some college (i.e., 35.2 percent), though level of parent education in the Hispanic subsample ranged from less than ninth grade to beyond a four-year college degree. Parent employment status also varied in the Hispanic subsample; 22.2 percent of parents worked full-time, 22.2 percent of parents worked part time, and 55.6 percent of parents were not employed.

Child characteristics. Table 6 summarizes the demographic information collected for the children in both the full sample and the Hispanic subsample. Of the 88 child participants, 55.7 percent were female (n = 49). Child age ranged from 0 to 52 months, with an average age of about 18 months (M = 17.72; SD = 9.88). Based on parent report, most children were from racial/ethnic minority backgrounds (i.e., 64.8 percent of children were identified as "Spanish/Hispanic/Latino"), which is consistent with parent self-identified racial and ethnic background. Parents reported children's native language as English (i.e., 53.4 percent), Spanish (i.e., 35.2 percent), or "Other" (i.e., 11.3 percent). Most of the children who participated in the current study, 89.8 percent, did not have a diagnosed special need.

Fifty-four children were included in the Hispanic subsample based on parent racial/ethnic background. Predictably, almost all children in the Hispanic subsample were as identified as Spanish/Hispanic/Latino based on parent report (i.e., 90.7 percent). Similarly, a larger percentage of children's native language was Spanish (i.e., 50 percent) in the Hispanic subsample than the full sample. Roughly half of the children in the Hispanic subsample were female (i.e., 53.7 percent). Children in the Hispanic subsample ranged in age from 0 to 33 months, with an average age of about 17 months (M = 17.19; SD = 9.18). Similar to the full sample, most children in the Hispanic subsample did not have a diagnosed special need (i.e., 92.6 percent).

Measures

Home visitor practices. The *Home Visit Rating Scales – Adapted and Extended* (HOVRS-A+) was used to assess the implementation of empirically-supported home visiting practices that promote positive parenting and support child development. The HOVRS-A+ is an observational measure of home visit quality designed to assess home visitor practices in early child development-focused home visiting programs (Roggman et al., 2012). As a strengths-based, culturally responsive measure (Roggman et al., 2012) that has been used in previous research examining home visiting with participants from diverse racial and ethnic backgrounds (Korfmacher et al., 2012), the HOVRS-A+ is an appropriate tool to measure home visitor practice in the current study. The HOVRS-A+ is comprised of two composites: Home Visit Practice Scales and Family Engagement Scales (Roggman et al., 2012). The Home Visit Practice Scales, referred to as the Home Visitor Strategies scales in previous versions of the measure, was used for the current study; this composite is comprised of four subscales: Responsiveness to Family, Relationship with Family, Facilitation of Parent-child Interaction and Non-intrusiveness and Collaboration with the Family (Roggman et al., 2012).

The Responsiveness to Family subscale measures the home visitor's ability to collaboratively plan visits and activities with families while incorporating families' strengths, interests, and needs into the home visit (Roggman et al., 2012). The Relationship with Family subscale measures the home visitor's ability to interact with the family in a warm, positive, and respectful way that is accepting of the family's culture (Roggman et al., 2012). The Non-intrusiveness and Collaboration subscale measures the home visitor's ability to follow the parent's lead and deliver interventions to the child, through the parent (Roggman et al., 2012). Together, these three subscales are consistent with the first overarching goal of recommended home visitor practice: to support the individual family by working in partnership with parents and individualizing services to accommodate families' strengths, needs, and culture. The Facilitation of Parent-child Interaction subscale measures the home visitor's ability to encourage and support parent's positive and responsive interactions with the child by working with the parent and child together during the home visit (Roggman et al., 2012). This subscale reflects the practices consistent with the second overarching goal: to support parent skill. The third overarching goal of empirically-supported home visiting practices (i.e., supporting broad areas of child development) is incorporated in all four subscales of the Home Visit Practice Scales; many of the items on each subscale specify that a home visitor practice be completed in relation to child development (e.g., "to provide feedback on family strengths for supporting child development", Item 4 on the Responsiveness to Family subscale; Roggman et al., 2012). Together these four subscales reflect the recommended home visitor practices used to promote positive parenting.

The HOVRS-A+ assesses home visitor practices through a video observation of a 30-minute portion of a home visit that involves the home visitor and parent and is focused on child

development topics. Each of the four subscales on the Home Visit Practice Scales is rated on a 7-point Likert scale from 1 to 7. Four descriptive anchors help guide the rating of home visitor practices: 1 - "needs training; 3 - "adequate"; 5 - "good"; and 7 - "excellent" (Roggman et al., 2012). The Home Visit Practice Scales is comprised of 24 items; five to seven items on each subscale. Items on each subscale are rated using the descriptive anchors, then a global rating from 1 to 7 is assigned to each subscale based on the ratings of the individual items (Roggman et al., 2012). A total score for the Home Visit Practice Scales is calculated by adding the global ratings for each of the four subscale scores; the absolute minimum of the Home Visit Practice Scales is 4 and the absolute maximum is 28. Items may receive a score of 0 if the item could not be coded for a given observation (e.g., the item pertains to parent-child interaction and the child was asleep during the observation).

The strong psychometric properties of the HOVRS-A+ indicate that it is a reliable and valid measure of home visitor practices used in child development-focused home visiting programs. During measurement development, the HOVRS-A+ was used to evaluate home visitor practices observed in 83 home visits across two Early Head Start programs in order to gather information regarding the psychometric properties of the measure (Roggman et al., 2012). Internal consistency for the entire HOVRS-A+ was high ($\alpha = .88$), as well as the internal consistency for the Home Visit Practice Scales ($\alpha = .84$; Roggman et al., 2012), given that Cronbach's α between .7 and .8 are considered "acceptable" or "good" (Field, 2009). The individual subscales of the Home Visit Practice Scales also showed acceptable internal consistency (i.e., Responsiveness $\alpha = .69$; Relationship $\alpha = .83$; Facilitation $\alpha = .86$; and Non-Intrusiveness $\alpha = .69$; Roggman et al., 2012). Additionally, strong inter-rater agreement (i.e., within one point for all scales across 10 observed home visits) provides further support for the

reliability of the HOVRS-A+ (Roggman et al., 2012). Korfmacher and colleagues (2012) also found high levels of inter-rater agreement; average percentage of agreement within one point for all scales was 91 percent. Finally, significant correlations with positive parent and child outcomes demonstrate the predictive validity of the HOVRS-A+ (Roggman et al., 2012).

Evidence of the reliability of the HOVRS-A+ Home Visit Practice Scales as an assessment of home visitor practice in the current study includes high internal consistency and inter-rater reliability. Overall internal consistency of the Home Visit Practice Scales for the present study was strong ($\alpha = .84$). Similarly, internal consistency of the four subscales of the Home Visit Practice Scales was good (Responsiveness $\alpha = .73$; Relationship $\alpha = .84$; Facilitation $\alpha = .86$; and Non-Intrusiveness $\alpha = .82$). Inter-rater reliability of the Home Visit Practice Scales and four subscales for the current study were assessed using intra-class correlations. Eighteen percent of the 88 home visit video observations ($n = 16$) were randomly selected across home visitors to be scored by two coders. Intra-class correlations of the two scores across these 16 video observations indicate excellent inter-rater reliability for the overall Home Visit Practice Scales (ICC = .95), as well as each of the four subscales (i.e., Responsiveness ICC = .85; Relationship ICC = .97; Facilitation of Parent-Child Interaction ICC = .92; and Non-Intrusiveness ICC = .93). Koo and Li's (2016) recommendations were used to evaluate reliability using intra-class correlations; specifically, values between 0.75 and 0.90 are considered "good" and values greater than 0.90 are considered "excellent".

Home visitor demographic characteristics. Important information about each home visitor was collected through the administration of demographic forms and review of employee data from the partnering Early Head Start program in which the home visitors worked. This information included level of education, years of experience working in the field of home

visiting, years of experience working for the Early Head Start program, race/ethnicity, primary language, and immigration status. The home visitor demographic form can be found in Appendix B.

Parent demographic characteristics. Parents completed a demographic form to provide basic information about their families. Information related to parent age, highest level of education, employment status, immigration status, and primary language was gathered using this demographic form. The parent demographic forms can be found in Appendices E and F. Also, information regarding parent race and ethnicity was collected through review of records from the partnering Early Head Start program.

Home visitor-parent cultural match. Using the home visitor demographic form, home visitors could identify their race or ethnicity as either "Spanish/Hispanic/Latino", "Black/African-American", "White", "Asian", "Native American Indian or Alaskan Native", or "Other". A home visitor-parent dyad was considered matched on race or ethnicity if the parent's description of their racial or ethnic background was the same as at least one term included in the home visitor's classification of their racial and ethnic background. For example, if the home visitor identified as "Spanish/Hispanic/Latino" on the home visitor demographic form and the parent identified as either "Hispanic" or "Latino", based on the review of records from Early Head Start, this was considered a match. "Other" was only considered a match if both the home visitor and the parent elaborated using the same terminology (e.g., Syrian). Match on native language was determined based on home visitors' responses on the home visitor demographic form and the parents' responses on the family demographic form. Using, the home visitor demographic form, home visitors could identify "English", "Spanish", or "Other" as their native language. The following scenarios were considered "matches" on native language: if both the

home visitor and parent endorsed “English” as their native language; if both the home visitor and the parent endorsed “Spanish” as their native language; and if the home visitor endorsed “Other”” as their native language and provided the name of a specific language and the parent reported that same language as their native language. If the home visitor or the parent included more than one language as their native language, at least one language in common was considered a match. Match on immigration status was determined by both the home visitor and the parent reporting being born in a country other than the United States mainland on their respective demographic forms. Home visitor-parent match on each of these three demographic variables was determined using SPSS statistics software (i.e., three new variables were computed for each home visitor-parent dyad to represent match on race/ethnicity, language, and immigration status, respectively, using the variables representing individual home visitor and parent demographic information).

Parent child-interactions. The quality of parent-child interactions was measured using the *Parenting Interactions with Children: Checklist of Observations Linked to Outcomes* (PICCOLO, Roggman, Cook, Innocenti, Norman & Christiansen, 2013). The PICCOLO is an observational measure of parenting behaviors that are positively associated with children’s cognitive, social, and language development. The PICCOLO is comprised of four domains: Affection (defined by warmth, verbal and physical expressions of affection, and positive regard), Responsiveness (defined by sensitivity to child’s cues), Encouragement, (defined by support of child’s autonomy, exploration, effort, initiative, creativity, curiosity and play), and Teaching (defined by cognitive stimulation, joint attention, conversation and explanations; Roggman et al., 2013). Each scale has seven or eight items measured on a 3-point Likert scale ranging from 0 to 2 to indicate whether the behavior described in that item was absent, barely present, or clearly

present during the observation (Roggman et al., 2013). The PICCOLO total score is calculated by adding the scores for each item on all four domains; the range of the PICCOLO total score, from absolute minimum to absolute maximum is 0 to 58. The PICCOLO total score was used to assess the quality of later parent-child interactions in the current study.

Psychometric data from the PICCOLO development study, which was conducted with African American, Latino, and Caucasian families enrolled in Early Head Start, provide strong evidence that the PICCOLO is a reliable and valid measure of parent-child interactions for families from ethnically diverse and low socioeconomic backgrounds (Roggman et al., 2013). The average inter-rater reliability correlation across the four domains was high (r = .77) in the initial measurement development study. For the current study, intra-class correlations were used to calculate inter-rater reliability on the PICCOLO total score and inter-rater reliability was fair (PICCOLO total ICC = .57), given Koo and Li's (2016) assertion that intra-class correlation values between 0.5 and 0.75 indicate "moderate" reliability. Agreement scores were calculated for all videos that were double-coded. Strong internal consistency of the PICCOLO was demonstrated with the measurement development study; Cronbach's α for the PICCOLO total score was .91. High internal consistency was also demonstrated in the current study; the Cronbach's α of the PICCOLO total score was .75. Cronbach's α was evaluated using Field's (2009) recommendation; specifically, values between .7 and .8 are considered "acceptable" or "good". In addition, the construct validity and predictive validity of the PICCOLO was demonstrated in the measurement development study. The PICCOLO total score was significantly correlated (r =.62) with the total Supportive score on the *Three Bag Mothering Scales*, another measure of positive parenting (Roggman et al., 2013). Lastly, in the measurement development study, PICCOLO domain scores and total scores representing parenting behavior

when children were 14-months-old significantly predicted children's scores on standardized measures of language, cognitive, and social/emotional ability at ages 3- and 5-years-old (Roggman et al., 2013).

Procedures

Design. The present study provides an in-depth examination of home visitor practice using a nested, cross-sectional, correlational study design. First, each participating home visitor provided services to one or more participating families, thus parent data were nested by home visitor. Additionally, the current study examined home visitor practice (i.e., descriptive information, the relationship between home visitor practice and home visitor experience, and the impact of home visitor-parent cultural match on home visitor practice) at one point in time. Lastly, the relationship between home visitor practice (Time 1) and later parenting outcomes, 8-week follow-up (Time 2) was assessed.

Assessment training and administration. Home visitors administered all assessments for the larger evaluation project, including the baseline assessment (Time 1) of home visitor practice (i.e., the HOVRS-A+) and the eight week follow-up assessment (Time 2) of parent-child interactions (i.e., the PICCOLO), which were used for the current study. Home visitors received extensive training and on-going support to administer the assessments. Before baseline assessment administration, home visitors participated in a two-hour training conducted by doctoral students that included direct instruction, modeling, guided practice, discussion of how to use the video camera and tripod, and review of administration guidelines for each video measure (e.g., length of video, participants needed for each video, and materials needed for each video). Written instructions (see Appendix G) detailing how to use the video camera and the guidelines for administering the video measures (i.e., procedures for recording the HOVRS-A+ and

PICCOLO assessment videos) were provided to home visitors to bring on each assessment home visit, along with the assessment materials. In addition, doctoral students provided on-going support for home visitors related to assessment administration; doctoral students visited the Early Head Start program weekly to provide assessment materials and answer questions. Doctoral students also offered to accompany the home visitors on assessment home visits to assist with assessment administration; however, most home visitors chose to complete the assessments independently to minimize the intrusiveness of assessment administration.

Assessments were administered during regularly scheduled Early Head Start home visits. Home visitors were asked to complete all video and paper measures over the course of one to two home visits; however, family issues (e.g., illness or housing instability) sometimes delayed or prolonged assessment administration. Video observations for the HOVRS-A+ were recorded during a 30-minute, child development-focused portion of the home visit that was collected during the baseline assessment. The home visitor, parent, and child were required to be in the video. If the child was asleep for more than 75 percent of the 30-minute video observation, the data from that recording could not be scored (Roggman et al., 2012). The PICCOLO was administered through a separate, 10-minute video observation that was collected during the eight week follow-up assessment. To provide additional structure to the 10 minutes of parent-child interaction recorded for the PICCOLO, parents were asked to interact with their child using three bags of materials; the first bag contained books, a second bag contained toys needed for imaginative play, and a third bag contained a puzzle. Data from both the HOVRS-A+ and the PICCOLO were coded by Dr. Lori Roggman's research team; Roggman and colleagues developed both the HOVRS-A+ and the PICCOLO. Coders were blind to the purpose of the study.

Parents also completed paper measures during each assessment home visit for the larger study. Home visitors were available to provide support to parents as they completed the paper measures in case questions related to the meaning of items arose. Upon completion of all assessment measures, parents were compensated with a 30 dollar gift card to a local department store.

Data Analysis

Research question 1. Research question (1) asks to what extent do home visitors in an Early Head Start program use recommended practices to promote positive parenting, as reflected in mean level scores and item level trends on the Home Visit Practice Scales of the HOVRS-A+ across all home visitors? It was hypothesized that home visitor engagement in strategies that enhance parenting would be adequate to good (i.e., scores of 3 to 5), given the average home visitor scores on the HOVRS-A and HOVRS-A+ found in the literature. Descriptive analyses were used to answer this question. The mean of the global rating for the Home Visit Practice Scales (i.e., one mean score averaging home visitor performance across all home visitors and families) and the mean of the global rating for each subscale of the Home Visit Practice Scales were examined. In addition, item level data were examined for the sample by calculating the percentage of observed home visits that were scored as "needs training" (i.e., 1 or 2) or "adequate" or above (i.e., 3 to 7) on items comprising the four subscales. These data provided a broad sense of the percentage of home visitors who were meeting expectations in regards to implementation of various recommended practices.

Research question (1a) asks to what extent does home visitors' use of practices to promote positive parenting vary among home visitors, as reflected in the means, standard deviation and range of performance on the Home Visit Practice Scales across home visitors? It

was hypothesized that there would be substantial variability between home visitors in their use of specific practices. This question was also answered using descriptive analyses. The mean of the global ratings for the Home Visit Practice Scales and the four subscales were reported for each home visitor, across all families on their caseload. In addition, the standard deviation and range of performance across home visitors on the global rating for the Home Visit Practice Scales and the four subscales were examined. These data were evaluated in comparison to the limited research findings available related to variability in observed home visitor practice; standard deviations ranging from .55 to 1.08 were found in previous studies examining observed home visitor practice using the Home Visit Practice Scales (Aikens et al., 2015; Korfmacher et al., 2012, Roggman et al., 2016). Of interest was whether the standard deviations found in the current study would fall within, or outside, of this range of standard deviations, indicating consistency with other home visiting programs in terms of variability in observed home visitor practice (i.e., standard deviations of the current study fall within this range), a relative strength compared to other home visiting programs (i.e., standard deviations of the current study fall below this range), or a relative weakness compared to other home visiting programs (i.e., standard deviations of the current study falls above this range).

Research question (1b) asks how do the scores on the Home Visit Practice Scales vary among families for a single home visitor, as reflected in the standard deviation and range of performance on the Home Visit Practice Scales for the families on a home visitor's caseload? There was no information in the existing literature related to variability in observed home visitor practice between families for a single home visitor; therefore, there were no *a priori* hypotheses. To answer this question, the standard deviation and range of performance on the global rating for the Home Visit Practice Scales and the four subscales were examined individually for each home

visitor, across their participating families. Due to the exploratory nature of this research question, descriptions of the findings were provided; specifically, the number of home visitors with a relatively large range of scores on each of the four subscales across families on their caseload, compared to the rest of the sample, were reported and the number of home visitors with a relatively high standard deviation of mean scores on each of the four subscales across families on their caseload, compared to the rest of the sample, were reported.

Research question (1c) asks to what extent do home visitors in an Early Head Start program utilize practices to promote positive parenting with the subsample of Hispanic families, as reflected in mean level scores, standard deviations, range of performance, and item level trends on the Home Visit Practice Scales of the HOVRS-A+. These analyses only included data from parents who identified as "Hispanic". Descriptive analyses were used to answer this question. The mean, standard deviation, and range of the global rating on the Home Visit Practice Scales, as well as the four subscales, were examined. In addition, item level data were examined by calculating the percentage of observed home visits that were scored as "needs training" (i.e., 1 or 2) or "adequate" or above (i.e., 3 to 7) on each item to understand implementation of specific home visitor practices for this subsample. This information provides a more comprehensive understanding of the home visitors' consistent utilization of various empirically-supported practices.

Research question 2. The second set of research questions asks (2) does home visitor experience (i.e., years working in the field of home visiting), predict mean level scores on the Home Visit Practice Scales for the overall sample? and (2a) does home visitor experience (i.e., years working in the field of home visiting), predict mean level scores on the Home Visit Practice Scales for the subsample of Hispanic families? There were no *a priori* hypotheses for

these research questions given the inconsistent evidence for this relationship in the literature. Simple linear regression was used to further understand variability in home visitor practice and address questions 2 and 2a. Using the information provided on the home visitor demographic form, years of experience working in the field of home visiting was calculated by adding the number of years the home visitor worked for the participating Early Head Start program and the number of years the home visitor previously worked for any other home visiting programs, if applicable. Years of experience working in the field of home visiting was used as the continuous predictor variable and the global rating of the Home Visit Practice Scales was the continuous dependent variable. The hypothesis would be accepted if a significant correlation between years of experience and home visitor practice was found. According to a power analysis conducted using *G power* software (Faul, Erdfelder, Lang, & Buchner, 2007), a sample size of 55 participants is needed to complete this analysis with sufficient power. Alternatively, Stevens (2009) suggests that 15 participants per predictor are needed for a "reliable regression equation in the social sciences" (p. 120); therefore, as few as 15 participants may be needed to complete this analysis with sufficient power. Given these criteria and the current sample size of 18 home visitors, this analysis may have been adequately powered to answer both research question 2 and 2a. Various assumptions of linear regression were checked: Outliers were checked using standardized residuals and Cook's D (Field, 2009). Assumptions of linearity were checked by visually examining matrix scatterplots (Field, 2009). Assumptions of normal distribution were assessed by visually examining the histogram and P-P plot of standardized residuals (Field, 2009). Assumptions of residuals were checked by visually examining the standardized residual plot (Field, 2009). Lastly the assumption of no multicollinearity was checked by examining the correlation matrix and collinearity statistics (Field, 2009).

Research question 3. Research question (3) asks do differences in the mean level of performance on the Home Visit Practice Scales differ according to the match between home visitor and parent on race/ethnicity, native language, and immigration status in the overall sample? Research question (3a) asks do differences in the mean level of performance on the Home Visit Practice Scales differ according to the match between home visitor and parent on race/ethnicity, native language, and immigration status in the subsample of Hispanic families? Given that there is minimal research on the relationship between home visitor practice and families' cultural background, these questions are exploratory; there were no *a priori* hypotheses.

Of interest was whether home visitor-parent match on any one of these variables was related to observed home visitor practice and whether the degree of cultural match was related to observed home visitor practice. To assess whether home visitor-parent match on any one of the three cultural variables was related to observed home visitor practice, three independent *t*-tests were used to examine differences in global rating scores on the Home Visit Practice Scales between home visitor-parent dyads that did and did not match on race/ethnicity, native language, and immigration status, respectively. The Bonferroni correction was used to control for Type I error, given the small number of multiple comparisons (Field, 2009). Assumptions of independence, normality, and homogeneity of variance were checked using visual examination of the histogram, skewness and kurtosis, and Levene's test (Field, 2009). Significant differences between groups that did and did not match on each cultural variable would indicate that there were differences in home visitor practice based on the match of the home visitor-parent dyad on race/ethnicity, native language, and immigration status. The diverse sample of the current study provided sufficient contrast to explore the possible impact of cultural match versus mismatch on home visitor practice for these three cultural variables.

To assess whether the degree of cultural match was related to observed home visitor practice, a total match score was calculated by adding each of the variables the home visitor-parent dyad matched on, with scores ranging from 0 (i.e., no match on any variable) to 3 (i.e., match on all three variables). A simple linear regression was then used to examine the relationship between global rating scores on the Home Visit Practice Scales and the degree of home visitor-parent dyads' match on the three cultural variables of interest. Degree of cultural match was the continuous predictor variable and the global rating of the Home Visit Practice Scales was the continuous dependent variable. A significant correlation between the degree of cultural match and the global rating of the Home Visit Practice Scales would indicate that there was a relationship between the number of cultural variables that home visitor-parent dyads matched on and home visitor practice. A power analysis conducted using *G power* software (Faul et al., 2007) indicated that 55 participants were needed to complete this analysis with sufficient power, while Stevens (2009) asserts that 15 participants per predictor are needed to conduct a linear regression. Given the current sample size of 88 for the full sample and 54 for the Hispanic subsample, this analysis is adequately powered for both samples. Finally, assumptions of liner regression were checked: Outliers were checked using standardized residuals and Cook's D (Field, 2009). Assumptions of linearity were checked by visually examining matrix scatterplots (Field, 2009). Assumptions of normal distribution were assessed by visually examining the histogram and P-P plot of standardized residuals (Field, 2009). Assumptions of residuals were checked by visually examining the standardized residual plot (Field, 2009). Lastly the assumption of no multicollinearity was checked by examining the correlation matrix and collinearity statistics (Field, 2009).

Research question 4. Research question (4) asks does home visitor practice, as measured by mean level scores on the Home Visit Practice Scales, predict the quality of parent-child interactions in the overall sample? Research question (4a) asks does home visitor practice, as measured by mean level scores on the Home Visit Practice Scales, predict the quality of parent-child interactions in the Hispanic subsample? Based on the literature linking empirically-supported home visitor practices to positive parent outcomes for families from diverse backgrounds, it was hypothesized that higher scores on the Home Visit Practice Scales would predict higher quality parent-child interactions. Linear regression was used to answer this research question; global ratings of the Home Visit Practice Scales from Time 1 served as the continuous predictor variable and total PICCOLO scores from Time 2 was the continuous dependent variable. Time 1 PICCOLO scores served as a covariate to account for individual family differences that could impact Time 2 PICCOLO scores (e.g., child age or duration of Early Head Start services). As the impact of the intervention implemented in the larger study was not the focus on the current study, preliminary analysis (i.e., an independent *t*-test) was conducted to assess for possible intervention effects on Time 2 PICCOLO scores and adjustments to the regression analyses were made as needed. Specifically, if significant differences in Time 2 PICCOLO scores were found between the intervention group and control group, intervention condition was also used as a covariate in the regression analysis. A positive, significant regression coefficient would confirm the hypothesis that improved home visitor practice was associated with the increased quality of parent-child interactions. To assess the power of these analyses, *G power* software (Faul et al., 2007) was used to conduct a power analysis and the statistical literature was consulted. The power analysis conducted using *G power* indicated that 55 participants were needed to complete this analysis with sufficient power, yet

Stevens (2009) suggests a minimum on 15 participants per predictor is acceptable. Given that 71 home visitor-parent dyads completed assessments at both Time 1 and Time 2 in the overall sample and 44 home visitor-parent dyads completed assessments at both Time 1 and Time 2 in the Hispanic subsample, this analysis is sufficiently powered.

Additionally, several assumptions of linear regression were checked (i.e., presence of outliers, assumptions of linearity, assumptions of normal distribution, assumptions of residuals, and assumption of no multicollinearity; Field, 2009). It is important to note that this analysis violated the assumption of independence of observations because home visitor-parent dyads were the unit of analysis. Eighteen home visitors participated in the current study with one or more families from their caseload, thus two or more home visitor-parent dyads may have included the same home visitor. Due to the small sample size of the current study, it was not feasible to answer this research question using hierarchal linear modeling; therefore, the potential impact of nesting effects was considered. Intra-class correlations (ICC's) were used to examine the proportion of the variance in Home Visit Practice Scales scores that could be explained by variability at the home visitor level. Findings indicate that a non-significant percent of the variance in Home Visit Practice Scales scores (i.e., 19.1 percent) could be accounted for by variability at the home visitor level, suggesting an absence of nesting effects. The absence of nesting effects provided support for the use of regression analyses to answer this research question and increased the confidence with which the findings could be interpreted.

Results

Observed Home Visitor Practice

Descriptive analyses were used to examine the extent to which home visitors used recommended practices to encourage developmental parenting behaviors, as reflected in mean

scores on the HOVRS-A+ Home Visit Practice Scales and its four corresponding subscales for the full sample and the Hispanic subsample. See Table 7 for additional information, including the range and standard deviation of mean scores for observed home visits. Across all observed home visits for the full sample, the mean score on the Home Visit Practice Scales was 11.95 and the mean scores on the four subscales (i.e., Responsiveness to Family, Relationship with Family, Facilitation of Parent-Child Interaction, and Non-Intrusiveness and Collaboration), ranged from just below (i.e., 2.43) to slightly above (i.e., 3.72) adequate. Similarly, for the subsample of Hispanic families, the mean score on the Home Visit Practice Scales across all observed home visits was 12.43 and the mean scores on the four subscales ranged from slightly below (i.e., 2.52) to almost a point above adequate (i.e., 3.94). Figure 1 presents the mean scores on each of the four subscales for the full sample and the Hispanic subsample. For both the full sample and the Hispanic subsample, the Relationship with Family subscale had the highest mean score of the four subscales, while the Facilitation of Parent-Child Interaction subscale had the lowest; reflecting relative strengths and weaknesses of participating home visitors. Mean scores for the Responsiveness to Family subscale and the Non-Intrusiveness and Collaboration subscale fell in the middle, with only marginal differences between them. In addition, the means of the Home Visit Practice Scales total score and individual subscale scores were slightly higher in the Hispanic subsample than the full sample, though this incremental difference likely has little practical significance.

Item Level Trends in Observed Home Visitor Practice

Item level trends on the Home Visit Practice Scales across all observed home visits were examined in both the full sample and the Hispanic subsample. Of interest were items in which a large percentage of the observed home visits were scored as “adequate or above” (i.e., 3 through

7) or “needs training” (e.g., 1 or 2) for the home visitor behavior described in those items, demonstrating relative strengths and weaknesses in home visitor practice for the participating Early Head Start program. Table 8 provides a complete list of items on each of the four subscales and the percentage of observed home visits that were scored as “needs training” or “adequate” and above for each item.

For both the full sample and the Hispanic subsample, item level trends on the Responsiveness to Family subscale indicate that home visitors consistently provide feedback on parent behavior that supports child development and consider parents’ interests and needs when planning and executing activities during the home visit; the four items representing these home visitor behaviors were scored as “adequate” or above for around 90 percent or more of the observed home visits. In contrast, incorporating family input into the agenda for the home visit was a weakness in observed home visitor practice for both the full sample and the Hispanic subsample; the majority (i.e., greater than 50 percent) of observed home visits were rated as “needs training” on the one item of the Responsiveness to Family subscale describing this home visitor behavior.

Item level trends on the Relationship with Family subscale suggest that for both the full sample and the Hispanic subsample, a relative strength of the participating home visitors is the ability to create a positive environment during home visits; most of the observed home visits (i.e., 90 percent or higher) received a score of “adequate” or above on the three items reflecting this relative strength. For both the full sample and the Hispanic subsample, the lowest scoring item on this subscale was item 5, “engage other family members if present during home visit” because 35.2 percent of the observed home visits were unable to be scored on this item, presumably due to a lack of additional family members present.

For both the full sample and the Hispanic subsample, item level trends on the Facilitation of Parent-Child Interaction subscale indicate that helping parents use available resources to support their child and engaging the parent and child together are home visitor strengths within this domain; a large percentage of the observed home visits (i.e., 80 percent or more) were rated as "adequate" or above on the two reflecting these behaviors. Unlike the previous two subscales, item level trends on the Facilitation of Parent-Child Interaction subscale identified the greatest number of weakness for the participating home visitors (i.e., three items in which roughly half or more of the observed home visits were rated as "needs training" for this subscale versus one item for the previous two subscales). These areas for improvement all center around fostering healthy parent-child relationships by encouraging responsive, developmentally supportive, and positive parent-child interactions. Though these three areas of weakness were evident for both the full sample and the Hispanic subsample, the percentage of observed home visits that received a score of "needs training" on one of the three identified items (i.e., item 5, "directly encourage or reinforce positive parent-child interactions") was roughly 10 percent lower in the Hispanic subsample (44.4 percent versus 54.5 percent).

Lastly, item level trends on the Non-Intrusiveness and Collaboration subscale suggest that for both the full sample and the Hispanic subsample, home visitors frequently follow the family's lead in terms of pace and activities of the home visit (item 4), but fail to encourage parent ideas for interactions with the child (item 1). Similar to the other three subscales, this relative strength was demonstrated by scores of "adequate" or above for roughly 90 percent of the observed home visits and the relative weakness was demonstrated by scores of "needs training" for roughly 50 percent of the observed home visits.

Overall, across both samples the Responsiveness to Family subscale and the Relationship with Family subscale seem to represent participating home visitors' greatest areas of relative strength, while the Facilitation of Parent-Child Interaction subscale seems to represent home visitors' greatest area of need. These findings based on item level trends are consistent with the apparent strengths and weaknesses in observed home visitor practice reflected in the mean scores of the global ratings of the four Home Visit Practice Scales; specifically Relationship with Family being the highest and Facilitation of Parent-Child Interaction being the lowest. Additionally, the items representing home visitor strengths across the four subscales were greater in both number (i.e., 10 items versus 6 items) and degree (i.e., typically 90 percent or more of observed home visits receiving a score of "adequate" or above versus roughly 50 percent of observed home visits receiving a score of "need training") than those items representing home visitor weaknesses. These findings suggest that there are substantial areas of relative strength in observed home visitor practice that can be supported and built upon through training and supervision to address areas of need.

Variability in Observed Home Visitor Practice

Variability in use of recommended practices among home visitors was explored through examination of the range and standard deviation of scores on the Home Visit Practice Scales across all observed home visits, as well as the range and standard deviation of scores on the four subscales. Each of the four subscales of the Home Visit Practice Scales was assigned a global rating from 1 to 7, resulting in an absolute range of 6 for the four subscale scores and an absolute range of 24 for the total Home Visit Practice Scales scores. It is important to note that in some instances, an individual subscale received a score of 0 because that scale could not be coded for a given observation (e.g., the child was sleeping so the coder was unable to observe parent-child

interaction). The range of scores on the Home Visit Practice Scales across all observed home visits for the full sample was 20.00. Additionally, the range of scores for each of the four subscales (i.e., Responsiveness to Family, Relationship with Family, Facilitation of Parent-Child Interaction, Non-Intrusiveness and Collaboration) was either 5.00 or 6.00. The standard deviation of the Home Visit Practice Scales across all observed home visits for the full sample was 4.22; while the standard deviations for the four subscales ranged from 1.05 to 1.36. These standard deviations on the Home Visit Practice Scales are higher than those found in previous literature (i.e., .55 to 1.08), suggesting that large variability in observed home visitor practice may be a unique area for improvement for this sample. The examination of the range and standard deviation of scores on the Home Visit Practice Scales and the four subscales in the subsample of Hispanic families yielded similar results. The range of scores on the Home Visit Practice Scales across all observed home visits for the Hispanic subsample was 19.00. The range of scores for each of the four subscales (i.e., Responsiveness to Family, Relationship with Family, Facilitation of Parent-Child Interaction, Non-Intrusiveness and Collaboration), was either 5.00 or 6.00, which is identical to the range of scores observed in the full sample. Finally, the standard deviation of the Home Visit Practice Scales across all observed home visits for the Hispanic subsample was 4.40; while the standard deviations for the four subscales ranged from 1.05 to 1.42. These findings indicate that there is great availability in observed home visitor practice in both the full sample and the Hispanic subsample across each of the four subscales, and consequently the overall Home Visit Practice Scales. See Table 7 for additional information, including the minimum and maximum mean scores on the Home Visit Practice Scales and four subscales for both the full sample and the Hispanic subsample.

To gain additional insight into the variability in observed home visitor practice between home visitors, the mean score of the Home Visit Practice Scales, as well as the mean score of each of the four subscales, was calculated for each individual home visitor across all families on their caseload. See Table 9 for the mean scores on the Home Visit Practice Scales and four subscales for all 18 home visitors. The mean total score of the Home Visit Practice Scales fell between 7.00 and 9.50 for 6 home visitors, 12.00 and 14.71 for 9 home visitors, and 16.00 and 17.25 for 3 home visitors. For the Responsiveness to Family subscale, the mean score was less than 3.00 (i.e., "needs training") for 7 home visitors and greater than or equal to 3.00 (i.e., "adequate" or above) for 11 home visitors. For the Relationship with Family subscale, the mean score was less than 3.00 for 6 home visitors and greater than or equal to 3.00 for 12 home visitors. For the Facilitation of Parent-Child Interaction subscale, the mean score was less than 3.00 for 13 home visitors and greater than or equal to 3.00 for 5 home visitors. Finally, for the Non-Intrusiveness and Collaboration subscale, the mean score was less than 3.00 for 7 home visitors and greater than or equal to 3.00 for 11 home visitors. The mean scores on the four subscales of the Home Visit Practice Scales provide further evidence for the relative strengths and weaknesses of the participating home visitors; of the four subscales, the Relationship with Family subscale had the highest number of individual home visitors who received a mean score of "adequate" or above, while the Facilitation of Parent-Child Interaction subscale had the highest number of individual home visitors who received a mean score of "needs training".

Lastly, variability in observed home visitor practice was examined separately for each individual home visitor to explore how one home visitor's practice may differ among families on their caseload. The standard deviation and range of performance on the Home Visit Practice Scales and the four subscales were examined individually for each home visitor, across their

participating families; specifically, the number of home visitors with a relatively large range of scores and a relatively high standard deviation on each of the four subscales across families on their caseload, compared to the rest of the sample, were identified. Table 9 provides a complete list of the range and standard deviation of mean scores for all 18 individual home visitors. For the Home Visit Practice Scales, one home visitor had a range as low as 1.00, while another had a range of as high as 15.00. The standard deviation of Home Visit Practice Scales scores for each individual home visitor, between families on their caseload, ranged from 0.50 to 6.25. These findings suggest that quality of home visitor practice is consistent across families for some home visitors, yet drastically different across families for other home visitors. For the four subscales of the Home Visit Practice Scales, the range of mean scores across families fell below 3.00 for most individual home visitors and the standard deviation fell below 1.00 for most individual home visitors; therefore, consistency in observed home visitor practice among families paired with the same home visitor was judged in relation to these findings. The most variability in observed home visitor practice among families paired with the same home visitor was seen for the Non-Intrusiveness and Collaboration subscale; eight home visitors had a range of 3.00 or higher across families on their caseload and nine home visitors had a standard deviation of 1.00 or higher across families on their caseload. The least variability in observed home visitor practice among families paired with the same home visitor was seen for the Relationship with Family subscale; four home visitors had a range of 3.00 or higher across families on their caseload and three home visitors had a standard deviation of 1.00 or higher across families on their caseload. Variability in observed home visitor practice among families paired with the same home visitor for the Responsiveness to Family and Facilitation of Parent-Child Interaction subscales fell in between, with greater variability among families evident for the Facilitation of Parent-Child

Interaction subscale (i.e., six versus five home visitors had a range of 3.00 or higher across families on their caseload and eight versus six home visitors had a standard deviation of 1.00 or higher across families on their caseload). These findings suggest that there is great variability in observed home visitor practice among families working with the same home visitor, just as there is wide variability in observed home visitor practice among home visitors working for the same Early Head Start program. In addition, these findings provide further evidence for the relative strengths and weakness of the participating home visitors, demonstrating that areas of relative strength in terms of higher mean scores are also areas of greater consistency in observed home visitor practice across families paired with the same home visitor (e.g., the Relationship with Family subscale) and areas of need in terms of lower mean scores are also areas of less consistency in observed home visitor practice across families paired with the same home visitor (e.g., the Facilitation of Parent-Child interaction and Non-Intrusiveness and Collaboration subscales).

Observed Home Visitor Practice and Years of Experience

Simple linear regression was used to examine the relationship between home visitor experience and use of recommended practices; specifically, a simple linear regression was completed to determine whether or not years of experience working in the field of home visiting predicted mean total scores on the Home Visit Practice Scales for the overall sample and the subsample of Hispanic families. Various assumptions of linear regression were checked (e.g., linearity, normal distribution, no multicollinearity) and all statistics were found to be within normal limits. The regression equation for the overall sample was not significant; $F(1,16) = .430$, $p = .522$, with an R^2 of .026. The regression equation for the subsample of Hispanic families was also not significant; $F(1,16) = .048$, $p = .830$, with an R^2 of .003. Table 10 provides additional

regression findings including the unstandardized beta (*B*), the standard error for the unstandardized beta (*SE B*), the standardized beta (β).

Observed Home Visitor Practice and Cultural Match

The impact of home visitor-parent match on specific variables related to cultural identify (i.e., race/ethnicity, native language, and immigration status) on the Home Visit Practice Scales scores was examined in both the overall sample and the subsample of Hispanic families using independent *t*-tests and simple linear regression. First, three independent *t*-tests were used to examine differences in scores on the Home Visit Practice Scales between home visitor-parent dyads that did and did not match on race/ethnicity, native language, and immigration status, respectively. Given the small number of multiple comparisons, Bonferroni correction was used to control for Type 1 error; a *p*-value of .0167 was used to determine significance. Assumptions of independence, normality, and homogeneity of variance were checked and all were within normal limits. Figure 2 presents the percentage of home visitor-dyads that matched on race/ethnicity, native language, and immigration status in both the full sample and the Hispanic subsample. In the full sample, the largest percentage of home visitor-parent dyads matched on native language (i.e., 69.3 percent) and immigration status (i.e., 67 percent), while match on race/ethnicity was slightly above 50 percent. The opposite was true in the Hispanic subsample; the majority of home visitor-parent dyads matched on race/ethnicity (i.e., 74.1 percent), while a little more than half of the home visitor-parent dyads matched on native language and immigration status. Table 11 provides additional detail regarding home visitor-parent cultural match in this sample; specifically, the percentage of home visitor-parent dyads that matched under specific categories of each demographic variable (e.g., "English" for native language) is provided. This breakdown of the match variables shows similar patterns in the full sample and

Hispanic subsample for match on race/ethnicity (e.g., "Hispanic" represented the highest percentage of matches, followed by "White") and immigration status (e.g., home-visitor parent dyads born in the United States mainland represented a majority of the matches); however, opposing trends were found for match on native language (e.g., "English" represented the highest percentage of matches for the full sample while "Spanish" represented the highest percentage of matches for the Hispanic subsample).

Significant differences in home visitor practice according to the three match variables were not found. There was a non-significant difference in mean scores on the Home Visit Practice Scales for home visitor-parent dyads in the overall sample that did (M =11.63, SD = 4.03) and did not (M =12.36, SD = 4.45) match on race/ethnicity [t (86) = .801, (p = .425)] and for home visitor-parent dyads in the subsample of Hispanic families that did (M =11.83, SD = 4.05) and did not (M =14.14, SD = 5.05) match on race/ethnicity [t (52) = 1.727, (p = .09)]. There was also a non-significant difference in mean scores on the Home Visit Practice Scales for home visitor-parent dyads in the overall sample that did (M = 12.3, SD = 4.02) and did not (M =11.19, SD = 4.62) match on native language [t (86) = -1.141, (p = .257)] and for home visitor-parent dyads in the subsample of Hispanic families that did (M =13.23, SD = 4.22) and did not (M =11.35, SD = 4.50) match on native language [t (52) = -1.571, (p = .122)]. Lastly, the difference in mean scores on the Home Visit Practice Scales for home visitor-parent dyads in the overall sample that did (M = 12.31, SD = 3.94) and did not (M = 11.43, SD = 4.69) match on immigration status was not significant [t (85) = -.911, (p = .365)]. Similarly, the difference in mean scores on the Home Visit Practice Scales for home visitor-parent dyads in the subsample of Hispanic families that did (M =13.6, SD = 4.13) and did not (M =11.17, SD =4.33) match on immigration status was not significant [t (51) = -2.074, (p = .043)]. Though these findings were

not significant, it is important to note that without the Bonferroni correction the difference between home visitor-parent dyads that did and did not match on immigration status would be significant. Finally, the effect sizes, specifically Cohen's *d*, of the differences between home visitor-parent dyads that did and did not match on race/ethnicity, native language, and immigration status for the full sample were 0.17, 0.26, and 0.20, respectively. The effect sizes of the differences between home visitor-parent dyads that did and did not match on race/ethnicity, native language, and immigration status for the Hispanic subsample were 0.51, 0.43, and 0.57, respectively.

Next, simple linear regression was used to assess whether the degree of cultural match between home visitors and parents (i.e., the number of demographic variables on which the home visitor-parent dyads matched) was related to observed home visitor practice, as measured by scores on the Home Visit Practice Scales. Various assumptions of linear regression were checked (e.g., linearity, normal distribution, no multicollinearity) and all statistics were found to be within normal limits. Figure 3 presents the percentage of home visitor-parent dyads that received total match scores of 0, 1, 2, and 3 in the full sample and the Hispanic subsample. In the full sample, the greatest percentage of home visitor-parent dyads matched on 2 demographic variables (i.e., 39.8 percent), while total match scores of 1 (i.e., 35.2 percent) or 3 (i.e., 33.3 percent) were most common in the Hispanic subsample. Very few dyads in either sample did not match on any of the three demographic variables. The regression equation examining the relationship between the degree of cultural match of home visitor-parent dyads in the overall sample and scores on the Home Visit Practice Scales was not significant; $F(1,86) = .573$, $p = .451$, with an R^2 of .007. The regression equation examining the relationship between the degree of cultural match of home visitor-parent dyads in the subsample of Hispanic families and scores on the Home Visit Practice

Scales was also not significant; $F(1, 52) = 1.399$, $p = .242$, with an R^2 of .026. Table 12 provides additional regression findings including the unstandardized beta (*B*), the standard error for the unstandardized beta (*SE B*), the standardized beta (β).

Observed Home Visitor Practice and Parent-Child Interactions

The final research questions explored whether observed home visitor practice, as measured by the Home Visit Practice Scales, predicted the quality of later parent-child interactions in the overall sample and the Hispanic subsample. Linear regression was used to answer these research questions; scores on the Home Visit Practice Scales at Time 1 served as the continuous predictor variable, Time 2 PICCOLO scores served as the continuous dependent variable, and Time 1 PICCOLO scores served as a covariate. Preliminary analyses (i.e., independent *t*-tests) were completed to assess for possible intervention effects of the larger project on Time 2 PICCOLO scores to determine whether a second covariate, group assignment, should be added to the regression analyses. The results of the independent *t*-tests indicated that there were not significant differences between Time 2 PICCOLO scores for participants in the intervention group (M = 42.21, SD = 6.47) and the control group (M = 40.10, SD = 7.1) for the overall sample, $t(69) = 1.309$, ($p = .195$), but there were significant differences in Time 2 PICCOLO scores between participants in the intervention group (M = 44.15, SD = 5.65) and the control group (M = 39.95, SD = 6.93) for the subsample of Hispanic families, $t(42) = 2.202$, ($p = .033$); therefore, group assignment was added as a covariate for the subsample of Hispanic families. Additionally, various assumptions of linear regression were checked (e.g., linearity, normal distribution, no multicollinearity) and all statistics were found to be within normal limits. For the overall sample, the linear regression model was significant; $F(2, 68) = 9.272$, $p < .001$, with an R^2 of .214. Time 1 PICCOLO scores ($p < .001$) and Home Visit Practice Scales scores (*p*

= .045) were both significant predictors of Time 2 PICCOLO scores. For the Hispanic subsample, the linear regression model was also significant $F(3, 40) = 5.254$, $p = .004$, with an R^2 of .283. Time 1 PICCOLO scores ($p = .022$) and Home Visit Practice Scale scores ($p = .027$) were both significant predictors of Time 2 PICCOLO scores. Group assignment was not a significant predictor in this model ($p = .135$). Table 13 provides additional regression findings including the unstandardized beta (*B*), the standard error for the unstandardized beta (*SE B*), the standardized beta (β).

Discussion

The purpose of the current study was to expand the limited research investigating home visitor practice using observational measures of home visitor behavior. Theoretical and empirical literature support the use of specific practices to improve parenting skill and promote positive parent-child relationships through home visiting services; however, additional information is needed about the extent to which home visitors implement these specific practices or the factors affecting the implementation of these practices. First, this study replicated previous work examining the quality of home visiting services by using the *Home Visit Rating Scales, Adapted and Extended*, (HOVRS-A+; Roggman et al., 2012), an observational measure of home visitor practice, to assess Early Head Start home visitors' use of recommended practices. Next, this study examined important aspects of observed home visitor practice that previously received little to no attention in the literature, including the degree of variability in practices observed across home visitors as well as among families served by a single home visitor, possible sources of variability (e.g., home visitor qualifications and home visitor-parent match on certain demographic variables), and the relationship between home visitor practice and later parent-child interaction. The final aim of this study was to further understand the experiences of families from

specific racial and ethnic minority groups engaged in home visiting services; therefore, all research questions were also examined for a subsample of Hispanic families participating in the current study.

Observed Home Visitor Practice

The Home Visit Practice Scales of the *HOVRS-A+* was used to determine the quality of observed home visitor practice in four main areas: Responsiveness to Family, Relationship with Family, Facilitation of Parent-Child Interaction, and Non-Intrusiveness/Collaboration. It was hypothesized that the home visits observed in the current study would be rated as "adequate" or "good" (i.e., scores between 3 and 5), given the average scores on the four subscales of the Home Visit Practice Scales found in previous studies that examined observed home visitor practice (Aikens et al., 2015; Hallgren et al., 2010; Korfmacher et al., 2012). In the current study, there was inconsistency in quality of observed home visitor practice among the four subscales of the Home Visit Practice Scales. The mean scores of the Responsiveness to Family and Relationship with Family subscales for both the full sample and the Hispanic subsample fell into the hypothesized range of "adequate" to "good", while the mean scores on the Facilitation of Parent-Child Interaction and Non-Intrusiveness/Collaboration subscales fell below the hypothesized range for both the full sample and Hispanic subsample. These results suggest that the participating home visitors from the current study are not adequately engaging in key practices used to promote healthy parent-child relationships, such as facilitating positive parent-child interactions and supporting the child indirectly by working with the parent. These findings are consistent with previous studies examining home visitor practice through observational measures; home visitors engaged in practices that supported the provider-parent relationship (Korfmacher et al., 2012), but were seldom observed supporting healthy parent-child

relationships and promoting positive parenting behaviors through facilitation, coaching, or provision of feedback during parent-child interactions (Hallgren et al., 2010; Korfmacher et al., 2012; Peterson et al., 2007). Use of evidence-based parenting behaviors is an important protective factor for children living in poverty (Linver et al., 2002), thus increasing home visitors' use of practices that facilitate positive parent-child interactions and promote collaboration with the family should be the target of professional development activities for home visitors (e.g., training and supervision).

Variability in Observed Home Visitor Practice

The wide variability in mean scores on the Home Visit Practice Scales in the current study also speaks to the need for additional professional development for home visitors to ensure consistency throughout the Early Head Start program. As predicted, there was substantial variability in home visitor use of recommended practices between home visitors, reflected in the large standard deviation of Home Visit Practice Scales scores across the full sample (i.e., 1.05 to 1.36) and the Hispanic subsample (i.e., 1.05 to 1.42). Interestingly, there was also substantial variability in observed home visitor practice among the families who were paired with the same home visitor. The standard deviations of Home Visit Practice Scales scores for individual home visitors, reflecting differences in scores between the families on their caseload, ranged from 0 to 1.90. Not only do these results demonstrate the need for additional training to ensure consistency across different home visitors in the same home visiting program, it also demonstrates the need to ensure that each home visitor is consistently providing the same high quality services to all families on their caseload. Home visitors may need additional training in appropriate ways to adapt services to support individual families while maintaining the integrity of the intervention, given the importance of tailoring services to support family strengths and meet individual family

needs (Knoche et al., 2012; Roggman et al., 2008). Fleming and colleagues (2011) qualitative finings provide further evidence for this assertion; early intervention providers videotaped their home visits with families as part of a professional development course and participated in follow-up interviews related to these video recordings. During these interviews, providers attributed their ability to implement recommended practices, specifically facilitating parent-child interactions, to family characteristics (Fleming, Sawyer, & Campbell, 2011). Furthermore, the impact of both home visitor characteristics and parent characteristics on variability in observed home visitor practice should be considered given the large standard deviations found on the Home Visit Practice Scales across different home visitors and within the same home visitor across different families on their caseload.

The current study explored two potential sources of variability in observed home visitor practice: home visitor years of experience working in the field of home visiting and home visitor-parent match on specific demographic variables related to cultural identity (i.e., race/ethnicity, native language, and immigrations status). No *a priori* hypotheses were made related to either of these potential sources of variability given the conflicting evidence found in the literature; the results of some studies indicate that home visitor professional qualifications and home visitor-parent match on certain demographic variables are positively related to home visiting outcomes, while others do not (Astuto & Allen, 2009; Korfmacher et al., 2008; Mortensen & Mastergeorge, 2014; Nievar et al., 2010). The regression equation examining the relationship between years of experience working in the field of home visiting and mean scores on the Home Visit Practice Scales were not significant for the full sample or for the subsample of Hispanic families, indicating that home visitor experience was not significantly related to home visitors' use of recommended practices in the current study. It is possible that an association

between years of experience and home visitor practice could not be detected in the current sample because most home visitors in this sample were relatively inexperienced; roughly two-thirds of participating home visitors reported working in the field of home visiting for five years or less. Nevertheless, these findings contribute to the continued uncertainty of whether home visitor professional qualifications, such as years of experience, impact home visitor practice.

Often, when the relationship between home visitor professional qualifications and outcomes of service delivery is explored in the literature, a simple linear model is examined; however, the relationship between these two variables may be more complex (Sheridan, Edwards, Marvin, & Knoche, 2009). Therefore, future research examining the relationship between years of experience in the field of home visiting and the quality of home visitor practice should seek to identify both mediating and moderating variables that affect this relationship. Greater understanding of the process through which professional development activities shape the practice of early childhood practitioners may help researchers select potential mediating and moderating variables to assess. Presently, there is no required pre-professional degree program or certification for practitioners entering the field of home visiting (Nievar et al., 2010; Sweet & Appelbaum, 2004). Moreover, home visiting programs often employ practitioners from various disciplines (e.g., psychology, social work, special education, and nursing) with varying levels of education (Nievar et al., 2010; Sweet & Appelbaum, 2004). Consequently, practitioners do not enter the field of home visiting with a shared set of core competencies on which to build. As a result, increased years of experience may have a differential impact on the quality of home visitor practice over time for home visitors who may come from very different professional backgrounds. Program characteristics, such as the type of on-going professional development offered, may be more important to facilitating consistent growth over time across home visitors

than increased years of experience alone (Sheridan et al, 2009). Similarly, certain practitioner characteristics, such as theoretical orientation and perception of one's role, may alter how increased years of experience and ongoing professional development influence practice (Campbell & Sawyer, 2009; Sheridan et al, 2009). Therefore program characteristics and home visitor characteristics related to professional growth and professional identify should be examined as potential moderators or meditators of the relationship between years of experience and the quality of home visitor practice.

Home visitor-parent match on demographic variables related to cultural identity was also explored as a potential source of variability in observed home visitor practice. Specifically, differences in observed home visitor practice between home visitors and parents that did and did not match on race/ethnicity, native language, and immigrations status, as well as the degree of cultural match on these three variables, was examined. Generally, home visitors and parents self-identified as one of two categories under each of these demographic variables; most participants endorsed Hispanic/Latino or White for race/ethnicity, Spanish or English for native language, and United States mainland or a predominately Spanish-speaking country for country of origin. Consequently, the majority of participating home visitor-parent dyads, greater than 50 percent, matched on each of these three variables (i.e., 55.7 percent matched on race/ethnicity, 69.3 percent matched on native language, and 67 percent matched on immigration status) under one of the two categories mentioned above for each of the demographic variables. For the current study, results indicate that there were no significant differences in Home Visit Practice Scales scores between home visitor-parent dyads that did and did not match on race/ethnicity, native language, and immigration status for both the full sample and the subsample of Hispanic families when the Bonferroni correction was applied. In addition, the relationship between the degree of

cultural match of the home visitor-parent dyad and Home Visit Practice Scales scores was not significant, indicating that there was no significant summative effect of cultural match. These findings suggest that match between home visitors and parents on certain demographic variables related to cultural identify (i.e., race/ethnicity, native language, and immigration status) was not associated with observed home visitor practice in the current study.

Notably, in the Hispanic subsample the independent *t*-test examining differences in mean scores on the Home Visit Practice Scales for home visitor-parent dyads that did and did not match on immigration status was significant without the Bonferroni correction applied (p = .043). Moreover, the effect sizes of the differences between home visitor-parent dyads that did and did not match on the race/ethnicity, native language, and immigration status were medium to large (i.e., 0.43 to 0.57) in the Hispanic subsample, even though the independent *t*-tests assessing these differences were not significant; the effect sizes of the differences in the full sample were much smaller (i.e., 0.17 to 0.26). These findings are consistent with prior studies that found provider-parent match on certain demographic variables, such as ethnicity and language, was related to the engagement and satisfaction of Hispanic and Latino families participating in parenting interventions (Ceballos & Bratton, 2010; Finno-Velasquez et al., 2014). The differential impact of home visitor-parent match on immigration status in this subsample of Hispanic families speaks to the need for culturally-specific evaluations of home visiting services; home visitor-parent cultural match may be more impactful for certain subgroups of families, such as newly immigrated, less acculturated families who may need more support navigating the dominant cultural norms.

It may be more meaningful to investigate the importance of home visitor-parent cultural match in the context of the home visitor-parent relationship, rather than in relation to more

removed outcomes of service delivery. The development of a strong relationship between home visitors and parents is a central component of home visiting service delivery and often a key contributor to program effectiveness (Paulsell, Boller, Hallgren, & Mraz Esposito, 2010). For example, Korfmacher and colleagues (2007) found that parent perception of the home visitor-parent relationship was a significant predictor of program participation, including average number of home visits, length of enrollment, and staff ratings of parent involvement (Korfmacher, Green, Spellmann, & Thornburg, 2007). Many home visiting programs employ paraprofessionals that are from the same communities as the families they serve and from similar backgrounds in an effort to foster strong home visitor-parent relationships (Korfmacher, 2016). Furthermore, some home visiting programs intentionally match home visitors and parents on important demographic variables in an effort to support the development of the home visitor-parent relationship (Paulsell et al., 2010; Riley, Brady, Goldberg, Jacobs, & Easterbrooks, 2008); thus cultural match may have an indirect impact on home visiting outcomes because of its potential influence on the home visitor-parent relationship. Riley and colleagues' (2008) qualitative examination of the parent-provider relationship in one home visiting program revealed that home visitor-parent match on race and language was important to some home visitors and parents, and not others; home visitors in support of pairing home visitors and parents based on racial identity and native language cited increased understanding of the family's culture (e.g., food and religion) and better evaluation of the child's language development as reasons to prioritize cultural match (Riley et al., 2008). Additional research is needed to determine if there is a significant relationship between home visitor-parent match on various demographic variables and quantitative measures of the quality of the home visitor-parent relationship. More importantly, future research intending to explore the relationship between the cultural match of

home visitor-parent dyads and the quality of the home visitor-parent relationship should include more direct measures of cultural match, such as consistency in cultural beliefs and values or similarities in acculturation status. The endorsement of the same descriptor of race or ethnicity on a demographic form is a very indirect, and potentially inaccurate, indication of shared cultural beliefs or values. Further, the cultural responsiveness of the home visitor in relation to outcomes should be examined; culturally competent service delivery, characterized by a respect for and sensitivity to the parents' cultural identity, beliefs, values, and practices, may be more important to the home visitor-parent relationship than cultural match (Korfmacher et al., 2008; Riley et al., 2008).

Observed Home Visitor Practice and Parent-Child Interactions

An important goal of the current study was to assess whether observed home visitor practice was positively related to the quality of later parent-child interactions, as the expressed purpose of many home visiting programs is to positively impact child development by building parenting skill and supporting healthy parent-child relationships (Mortensen & Mastergeorge, 2014; Nievar et al., 2010; Sweet & Appelbaum, 2004). It was hypothesized that greater use of recommended home visitor practices, as reflected in higher mean scores on the Home Visit Practice Sales at Time 1, would be associated with higher quality parent-child interactions, as reflected in PICCOLO scores at Time 2, for both the full sample and the Hispanic subsample. These hypotheses were correct; Time 1 scores on the Home Visit Practice Scales, along with Time 1 PICCOLO scores, were significant predictors of Time 2 PICCOLO scores for the full sample and the Hispanic subsample. This reaffirms the conclusions drawn from the theoretical and empirical literature asserting that a specific set of recommended home visitor practices are related to improved parent outcomes (Mortensen & Mastergeorge, 2014; Nievar et al., 2010).

Furthermore, these findings underscore the need for additional home visitor professional development to maximize the benefit of home visiting services to participating parents and children. If nearly "adequate" to "adequate" implementation of recommended home visitor practices in the current study (i.e., mean scores above 3.00 on the Responsiveness to Family and Relationship with Family subscales and mean scores slightly below 3.00 on the Facilitation of Parent-Child Interaction and Non-Intrusiveness and Collaboration subscales) had a significant, positive impact on the quality of later parent-child interactions, then excellent implementation of recommended home visitor practices is likely to have a profound positive impact on parenting outcomes, and ultimately child development. Continued professional development may be integral in improving home visitors' use of recommended practices from adequate to excellent.

Interestingly, total scores on the Home Visit Practice Scales were positively associated with the quality of later parent-child interactions, even though observed practices on the Facilitation of Parent-Child Interaction subscale were rated as "needs training". Placing these findings into the context of the broader home visiting literature provides insight into how observed home visitor practice, in conjunction with other aspects of service delivery, may impact parenting behavior. Nievar and colleagues (2010) found that intensity of service delivery, specifically the frequency of home visits, moderated the relationship between home visiting service delivery and improved parent behavior. Programs that provided at least three home visits per month were more than twice as effective as programs that offered fewer home visits per month (i.e., .58 mean effect size versus .27; Nievar et al., 2010). The partnering Early Head Start program of the current study would be considered an intensive program given the program requirement of two-hour, weekly home visits, roughly four home visits per month. This requirement surpasses that of the national Head Start Program performance standards, which

requires 90-minute, weekly home visits (45 CFR 1302.22; United States Department of Health and Human Services, 2016). The *Home Visitor's Handbook for the Head Start Home-Based Program Option* asserts that this level of intensity is needed to "achieve the child development outcomes of the Head Start program" (United States Department of Health and Human Services, 2013, p. 5). Meeting this requirement alone, regardless of the quality of observed home visitor practice, may be sufficient to positively impact some parent and child outcomes.

Limitations

The major limitation of the current study was the small sample size. First, a larger sample size would have allowed the use of more sophisticated methods of statistical analyses to answer certain research questions; specifically, multilevel modeling is the preferred statistical technique to analyze group differences within nested data structures like that of the current study (i.e., parents, level 1, nested within home visitors, level 2; Stevens, 2009). Thus, hierarchal linear modeling would have been the preferred method to address research question four examining the relationship between observed home visitor practice and the quality of later parent-child interactions (Stevens, 2009). Additionally, a larger sample would have allowed for the statistical examination of group differences in observed home visitor practice between the non-Hispanic families in the full sample and the Hispanic subsample. Furthermore, a sample of home visitors and parents that was more diverse would have provided the opportunity for exploration of observed home visitor practice in families from a wider range of cultural minority groups, particularly those who were not represented in the current study. Moreover, a larger and more diverse sample of home visitors and parents would have increased the generalizability of the findings; the conclusions drawn from the current study could have been considered applicable to a broader range of home visitors if more participants were included in the study. Lastly, the

construction of the cultural match variable is a limitation of the current study. Endorsement of the same demographic descriptor was used to determine cultural match; however, this is a rudimentary assessment of cultural background and may not be reflective of consistent cultural values or practices. Further, home visitors and parents were able to endorse one or more descriptors for each demographic variable; if the home visitor or parent of a given dyad endorsed more than one descriptor for a demographic variable (e.g., the home visitor identified as "Hispanic" and "White" and the parent identified as "Black" and "White" for race/ethnicity) but had at least one descriptor in common (e.g., "White"), this was determined to be a match. While these procedures for determining cultural match were necessary to complete the statistical analyses in the current study, they also made the groups for each cultural match category more heterogeneous, and even less reflective of a similar cultural background. The use of a simple measure of cultural identity related to the demographic variables of interest that were more representative of actual cultural values and practices would have improved the accuracy of the cultural match variable.

Future Directions

The present study is one of a small number of studies that used observational measures to examine home visitor implementation of recommended practices. One common finding across these few studies is that home visitors seldom engage in key recommended practices, especially those that facilitate and reinforce positive parent-child interactions. Minimal use of these key recommended practices, which are part of the underlying mechanism of change in home visiting, is troubling; therefore, additional research is needed to determine the cause of this issue. A variety of observational assessment tools should be used to gather more information regarding the implementation of specific home visitor practices. For example, previous studies utilized the

Home Visit Observation Form (McBride & Peterson, 1997), which is an observational measure of home visitor practice that uses a 30-second, partial interval recording system to assess the frequency of certain home visitor practices (e.g., direct teaching with child, modeling for parent, using coaching strategies, or providing information; Campbell & Sawyer, 2007; Peterson et al., 2007). This measure could provide additional insight into the frequency with which certain practices are used, which would complement the information learned from observational measures of home visitor practice that provide a more global assessment of the quality of observed practice, such as the *HOVRS-A+*. The need to consider both the frequency and quality of home visitor use of key recommended practices is exemplified by Knoche and colleagues (2010) investigation of implementation fidelity of the *Getting Ready* intervention (a relational intervention that uses triadic and collaborative consultation strategies to support positive parenting behaviors in families of children age birth through five; Sheridan et al., 2008). Using a modified version of the *Home Visit Observation Form*, these researchers found that both frequency (i.e., total rate of strategy use) and quality (i.e., global rating of the effectiveness of strategies use) of early childhood professionals' implementation of the *Getting Ready* intervention strategies were associated with increased parent engagement; however, these strategies seemed to be measuring different constructs, as they were somewhat correlated, but not entirely (Knoche, Sheridan, Edwards, & Osborn, 2010). A more comprehensive understanding of home visitors' use of key recommended practices will inform the development of program supports designed to increase home visitors' use of these strategies.

Additional programmatic support may be needed to increase home visitors' use of recommended home visitor practices. Most home visiting programs offer a range of professional development opportunities, such as in-service trainings and supervision; however, few studies

have investigated what kinds of professional development activities are associated with improvement in the quality of observed home visitor practice (Sheridan et al., 2009). Currently, reflective supervision is the primary method of supporting home visitor practice (Korfmacher, 2016). Reflective supervision is characterized by a collaborative relationship between the supervisor and the home visitor that provides opportunities for the home visitor to reflect on their own practice and develop self-awareness; celebrate their strengths and accomplishments; and brainstorm solutions to challenges working with families and managing their own stress (United States Department of Health and Human Services, 2013). Findings from the literature examining the implementation supports needed to increase home visitors' use of recommended practices suggest that incorporating more data-driven professional development activities into current models of supervision may be beneficial (Brown, Knoche, Edwards, & Sheridan, 2009; Korfmacher, 2016; Marturana & Woods, 2012; Sheridan et al., 2009). Common elements of professional development activities that utilize data to facilitate growth include direct observation of home visitor practice (live or through video recordings); ample opportunities to practice strategies; consistent, individualized performance feedback based on observations highlighting home visitor strengths and areas for improvement; opportunities for the home visitor to reflect on their practice based on video recorded observations; and discussion of goals, or planning, for future home visits (Brown et al., 2009; Korfmacher, 2016; Marturana & Woods, 2012; Sheridan et al., 2009). As with the reflective supervision model, a collaborative, trusting relationship between the supervisor and the home visitor is critical to the success of these data-based professional development activities (Brown et al., 2009; Sheridan et al., 2009). In addition, there is preliminary evidence for the effectiveness of data-driven professional development activities (Brown et al., 2009; Marturana & Woods, 2012). Improvement in home visitors'

perception of their own confidence and competence in using empirically-supported practices was a major theme identified through Brown and colleagues' (2009) qualitative evaluation of the implementation supports provided to early childhood practitioners implementing the *Getting Ready* intervention in Early Head Start and Head Start settings. These implementation supports included regularly scheduled individual and group coaching sessions that incorporated feedback, role-play, videos, self-reflection, and discussion of personal goals. Similarly, Marturana and Woods (2012) found that use of a multicomponent, technology-based professional develop program that included peer and expert mentoring, video review, and performance feedback improved the practice of early interventionists providing services through Part C; specifically, providers use of caregiver coaching strategies increased, providers use of child-focused interventions decreased, and providers embedded interventions into family and community routines more often (Brown et al., 2009). Future research should explore the most efficient and effective ways to incorporate these data-driven professional development activities into existing models of supervision.

Future research should continue to examine factors related to variability in observed home visitor practice (e.g., program characteristics, home visitor characteristics, and parent characteristics), in addition to the two explored in the current study (i.e., home visitor years of experience and home visitor-parent cultural match). Among the many factors that may affect the quality of observed home visitor practice, the content of home visits may be particularly impactful given (1) the potential bidirectional relationship between the content of home visits and the use of recommended practices (e.g., it is likely that an increased focus on child development in the home visit is related to greater facilitation of parent-child interactions) and (2) the association between the content of home visits and program outcomes. The content of

home visits is an essential component of any home visiting program and has been shown to be related to important parent and child outcomes (Paulsell et al., 2010). Home visiting seems to be more effective when the content of home visits are child-focused, that is a higher percentage of time is dedicated to activities related to child development, rather than family functioning, community resources, or relationship building (Peterson et al., 2007; Raikes et al., 2006; Roggman, Cook, Peterson, & Raikes, 2008). Child-focused home visits have been associated with increased parent engagement during home visits, decreased likelihood of parents withdrawing from home visiting services, increased quality of the home environment to support child development, improved parental support for children's language and learning, and improved scores on measures of children's cognitive and language development (Peterson et al., 2007; Raikes et al., 2006; Roggman et al., 2008). Greater understanding of how the content of home visits and home visitor use of recommended practices are connected will lead to the development of more effective ways to support home visitor practice.

Lastly, the need for culturally-specific studies that evaluate home visiting services for families from more narrowly defined cultural groups is evident. The *Home Visiting Evidence of Effectiveness* (HomVEE) review identified this need as a crucial gap in the home visiting literature; the samples in home visiting research studies were diverse in terms of race, ethnicity, and socioeconomic status, but not large enough to analyze data separately by subgroup (Sama-Miller et al., 2016). Additionally, very little research examined the effectiveness of home visiting services for immigrant families, who may have unique needs related to their immigration status (Sama-Miller et al., 2016). The current study attempted to address this gap by examining each research question using a subsample of Hispanic families, in addition to the full sample. Consistent with previous literature (Ceballos & Bratton, 2010; Finno-Velasquez et al., 2014), the

current study identified some differences in home visiting service delivery for the Hispanic subsample; specifically, home visitor-parent match on immigration status was related to observed home visitor practice for Hispanic families. Furthermore, cultural adaptations to parenting interventions also seem to be particularly important for parents from Hispanic and Latino backgrounds. These adaptations include connecting with a cultural broker from the Latino community, providing opportunities for socialization amongst parents, translating materials into the appropriate Spanish dialect, incorporating various aspects of Latino culture into program materials (e.g., use of Latino names and provision of Latino food during sessions), and consideration of culturally appropriate childrearing practices, as certain parenting practices may be uncommon or deemed unacceptable in Latino culture (e.g., planned ignoring in public or elimination of physical punishment; Calzada, Basil, & Fernandez, 2013; Ceballos & Bratton, 2010; Finno-Velasquez et al., 2014; Niec et al., 2014; Vesely et al., 2014). Taken together, these findings illustrate the importance of culturally-specific studies that utilize both quantitative and qualitative research methods to understand the experiences of families from cultural subgroups and the effectiveness of home visiting services for these groups. The sample of the current study was small and participants largely represented just two racial groups (i.e., White and Hispanic) and two native languages (i.e., Spanish and English). Future research should build on the current study by exploring home visiting service delivery with families from other cultural subgroups. The goal of achieving consistent, positive outcomes for children and parents participating in home visiting programs begins with improving the quality of home visiting services provided to all families.

Table 1

Recommended Practices for Promoting Positive Parenting: Framework of Three Overarching Goals

Goal	Practices	Examples
(1) Support the Individual Family: Utilize parent strengths, meet families' needs, and be responsive to families' cultural beliefs and values	Consultation, shared decision making, and other collaborative strategies	→Allow parents to lead activities or discussions. →Ask parents to select topics to be addressed during home visits. →Integrate services within the context of families' everyday routines and activities.
(2) Support Parenting Skill: Help parents observe and respond to their child's development	Coaching and effective feedback	→Discuss the child's behavior development, or interests. →Encourage positive and developmentally appropriate parent response through praise. →Support parents to alter their actions to meet the child's needs and elicit the desired behavior from the child.
(3) Support Broad Areas of Child Development: Focus on child development throughout all home visits	Direct teaching	→Provide information related to child development through discussion, written materials, or intervention activities.

Table 2

Observed Use of Recommended Home Visitor Practices: Home-Based Early Intervention Services

	Campbell & Sawyer, 2007		Peterson, Luze, Eshbaugh, Jeon, & Kantz, 2007 (Study 1)	
Home Visitor Sample	*n* = 50		*n* = 15	
Gender	Female	95.9%	Female	100%
Race/Ethnicity	Caucasian	72.3%	Caucasian	100%
	African-American	19.1%		
	Latino/Hispanic	4.3%		
	Asian	2.1%		
	Other	2.1%		
Level of Education	High school diploma	2.3%	Higher than bachelor's degree*	80%
	Bachelor's degree	43.2%		
	Master's degree	54.5%		
Area of Training	Occupational therapists	24.4%	Special education	Most*
	Physical therapists	17.1%		
	Speech-language pathologists	14.6%		
	Education	26.8%		
	Psychology or social work	7.3%		
	Other	9.8%		
Years of Early Intervention Experience	M = 3.10, SD = 3.82		M = 8, Range = 2 to 18	
Parent Sample	*n* = 50		*n* = 28	
Gender	*Not reported*		Female	100%
Race/Ethnicity	*Not reported*		White, Non-Hispanic	89.3%
			Black, Non-Hispanic	3.6%
			Hispanic	3.6%
Level of Education	*Not reported*		Less than high school diploma	7.1%
			High school diploma or GED	28.6%

			Some college	39.3%
			Bachelor's degree or higher	21.4%
Annual Income	*Not reported*		Less than $10,000	21.4%
			$10,000 to $30,000	28.6%
			Over $30,000	42.9%
Child Sample	*n* = 50		*n* = 28	
Gender	Mostly male		Male	60.7%
Race/Ethnicity	Caucasian	66.7%	*Not reported*	
	African-American	20%		
	Latino	13.3%		
Age	12 to 24 months	Roughly 50%*	Less than 12 months	14.3%
			12 months to 36 months	85.7%
	25 to 36 months	Roughly 50%*		
Identified Disability	Speech/language delay	33.3%	Speech/language delay	*Not reported*
	Physical/motor disability	33.3%	Physical/motor disability	*Not reported*
	Developmental delay	*Not reported*	Developmental delay	*Not reported*
	Multiple disabilities	*Not reported*		
	PDD or autism	*Not reported*		
	Other concerns	*Not reported*		
Measure(s) of Home Visitor Practice	Home Visit Observation Form-Modified (HVOF-M) Natural Environments Rating Scale (NERS)		Home Visit Observation Form (HVOF)	
Observed Home Visitor Practices	1. Most home visits were coded as traditional. 2. Most interactions were between home visitor, caregivers, and children. 3. Most home visits were focused on child development.		1. Home visitors spent little time supporting parent-child interactions via coaching and modeling. 2. Most interactions were between home visitor, caregivers, and children. 3. Most home visits were focused on child development.	

**Lack of detail is due to unreported information in the studies.*

Table 3

Observed Use of Recommended Home Visitor Practices: Comprehensive Prevention Home Visiting Programs

	Aikens, Xue, Bandel, Caronongan, Vogel, & Boller, 2015	Hallgren, Boller, & Paulsell, 2010	Korfmacher, Sparr, Chawla, Fulford, & Fleming, 2012		Peterson, Luze, Eshbaugh, Jeon, & Kantz, 2007 (Study 2)	
Home Visitor Sample	*n* = 322	*n* = 35	*n* = 45		*n* = 46	
Gender	*Not reported*	*Not reported*	*Not reported*		Female	97.8%
Race/Ethnicity	*Not reported*	*Not reported*	Caucasian African-American Latino American Indian/Alaskan	60% 22% 16% 2%	*Not reported*	
Level of Education	*Not reported*	*Not reported*	Bachelor's degree	71%	HS diplomas Associate's degree Bachelor's degree	8.7% 2.2% 89.1%
Area of Training	*Not reported*	*Not reported*	*Not reported*		*Not reported*	
Years of Experience	*Not reported*	*Not reported*	More than 3 years for most home visitors.*		M = 2, Range = 0 to 19	
Parent Sample	*n* = 232	*n* = 35	*n* = 85		*n* = 92	
Gender	*Not reported*	100% *female*	*Not reported*		98.9% female	
Race/Ethnicity	*Not reported*	*Not reported*	Caucasian Latino African-American Other	39% 31% 27% 3%	White, Non-Hispanic Black, Non-Hispanic Hispanic Other	82.6% 3.3% 6.5% 7.6%
Level of Education	*Not reported*	*Not reported*	*Not reported*		Less than a high school diploma High school	31.4% 32.6%

				diploma or GED	
				Some college or Associate's degree	23.9%
				Bachelor's degree or higher	9.8%
Annual Income	*Not reported*	*Not reported*	*Not reported*	Less than $10,000	67.4%
				$10,000 to $30,000	29.3%
				Over $30,000	1.1%
Child Sample	*n* = 232	*n* = 35	*n* = 85	*n* = 92	
Gender	*Not reported*	*Not reported*	*Not reported*	Male	50.5%
Race/Ethnicity	*Not reported*	*Not reported*	*Not reported*	*Not reported*	
Age	*Not reported*	M = 11 weeks, Range = 1 to 36 weeks	*Not reported*	Unborn	12%
				Less than 150 days	28.3%
				150 to 346 days	57.6%
				365 days or older	2.2%
Identified Disability	*Not reported*	*Not reported*	*Not reported*	*Not reported*	
Measure(s) of Home Visitor Practice	Home Visit Rating Scales – Adapted (HOVRS-A)	Home Visit Rating Scales – Adapted (HOVRS-A) Home Visit Characteristics and Content Form	Home Visit Rating Scales – Adapted and Extended (HOVRS-A+)	Home Visit Observation Form-Revised (HVOF-R)	
Observed Home Visitor Practices	1. Scores on the Home Visitor Strategies Scale of the HOVRS-A were adequate to good across time (i.e., Year 1: M = 3.2, SD = .97; Year 2: M = 3.3, SD = .82; Year 3: M = 3.3, SD = .87;	1. Scores on the Home Visitor Strategies Scale of the HOVRS-A were good (i.e., M = 4.1, SD = .55). 2. Mean score on the HOVRS-A subscale	1. Scores on the Home Visitor Strategies Scale of the HOVRS-A+ were adequate to good (i.e., M = 3.71, SD = 1.03). 2. Mean scores on the HOVRS-A+ subscales	1. Home visitors spent most of the home visit supporting adult interaction, but little time facilitating parent child interactions. 2. Home visitor use of modeling and coaching	

	Year 4: M = 3.4, SD = .99). Spending more time on parent-child activities, presence of another adult, and alignment between the home visit plan and actual home visit is positively associated with home visitor strategy scores. 3. Scores on the Home Visitor Strategies Scale of the HOVRS-A were negatively associated with children's behavior problems.	measuring facilitating parent-child interactions was lowest. 3. Home visitors provided education and information in all home visits observed.	measuring collaboration and facilitating parent-child interactions were lowest.	strategies were positively related to parent engagement.

**Lack of detail is due to unreported information in the studies.*

Table 4

Home Visitor Demographic Characteristics

	Home Visitors (n = 18)
Gender (%)	
Male	0
Female	100
Race/Ethnicity (%)	
Hispanic/Latino	50
Black/African-American	5.6
White	38.9
Biracial	5.6
Native Language (%)	
English	66.7
Spanish	33.3
Birth Country (%)	
United States Mainland	77.8
Puerto Rico	11.1
Peru	5.6
Unknown	5.6
Education Completed (%)	
High school graduate & Child Development Associate degree	5.6
Four-year college degree	83.3
Master's degree	11.1
Years working for EHS (%)	
Less than 2	66.7
2 – 5	16.6
Greater than 5	16.7
Years in Home Visiting (%)	
Less than 2	33.3
2 – 5	33.4
Greater than 5	33.3

Table 5

Parent Demographic Characteristics

	Full Sample (n = 88)	Hispanic Subsample (n = 54)
Gender (%)		
Male	5.7	5.6
Female	94.3	94.4
Age (X, SD)	28.77 (6.74)	28.35 (6.11)
Ethnicity (%)		
Hispanic	61.4	100
Non-Hispanic	38.6	0
Race (%)		
White	36.3	42.6
Black	12.5	1.9
Asian	2.3	0
Biracial	13.7	13
Other	35.2	42.6
Native Language (%)		
English	45.5	25.9
Spanish	44.3	64.8
English and Spanish	6.8	9.3
Other	3.4	0
Birth Country (%)		
United States Mainland	52.3	40.7
Dominican Republic	12.5	18.5
Puerto Rico	10.2	16.7
Mexico	9.1	11.1
Honduras	3.4	5.6
Nicaragua	2.3	1.9
Ecuador	2.3	1.9
India	2.3	0
Jamaica	1.1	0
Liberia	1.1	0
“Africa”	1.1	0

Education Completed (%)		
Less than 9th grade	4.5	5.6
Some high school	19.3	16.7
GED	4.5	1.9
High school graduate	26.1	31.5
Some college	34.1	35.2
Four-year college	8	7.4
College +	3.4	1.9
Employment Status (%)		
Full Time	20.5	22.2
Part Time	21.6	22.2
Not employed	58	55.6
Marital Status (%)		
Married	34.1	40.7
Never married	50	48.1
Separated or divorced	11.4	9.3
Common law marriage	2.3	1.9

Table 6

Child Demographic Characteristics

	Full Sample (n = 88)	Hispanic Subsample (n = 54)
Gender (%)		
Male	44.3	46.3
Female	55.7	53.7
Age in months (X, SD)	17.72 (9.88)	17.19 (9.18)
Native Language (%)		
English	53.4	40.7
Spanish	35.2	50
English and Spanish	6.8	9.3
Marathi	2.3	0
Vietnamese	1.1	0
English and Arabic	1.1	0
Race/Ethnicity (%)		
Spanish/Hispanic/Latino	64.8	90.7
Black/African-American	9.1	0
White	8.0	0
Asian	2.3	0
Multiracial	13.5	7.4
Other	2.3	1.9
Other Program Participation (%)		
Yes	19.3	18.5
No	80.7	81.5
Special Needs (%)		
Yes	10.2	7.4
No	89.8	92.6

Table 7

Observed Home Visitor Practice

	Full Sample					Hispanic Subsample				
	Mean	SD	Range	Min.	Max.	Mean	SD	Range	Min.	Max.
Responsiveness to Family	3.10	1.05	5.00	1.00	6.00	3.13	1.05	5.00	1.00	6.00
Relationship with Family	3.72	1.36	6.00	1.00	7.00	3.94	1.35	5.00	2.00	7.00
Facilitation of Parent-Child Interaction	2.43	1.35	6.00	0.00	6.00	2.52	1.41	6.00	0.00	6.00
Non-Intrusiveness and Collaboration	2.77	1.36	5.00	1.00	6.00	2.94	1.42	5.00	1.00	6.00
Home Visit Practice Scales	11.95	4.22	20.00	4.00	24.00	12.43	4.40	19.00	5.00	24.00

** The potential range of the Home Visit Practice Scales is from 4.00 to 28.00. The potential range of each subscale is from 1.00 to 7.00. Home visitors could receive a score of 0.00 on a subscale if that subscale could not be scored for a given observation.*

Table 8

Observed Home Visitor Practice: Item Level Trends

	Full Sample		Hispanic Subsample	
	"Needs Training" (%)	"Adequate" or above (%)	"Needs Training" (%)	"Adequate" or above (%)
Responsiveness to Family				
Item1 *To plan activities and topics of the home visit with the parent*	6.8	93.2	5.6	94.4
Item2 *To prepare for the home visit using parent-selected activities*	1.1	98.9	1.9	98.1
Item 3 *To get information about the family's strengths and child's Development*	27.3	72.7	29.6	70.4
Item 4 *To provide feedback on family strengths for supporting child Development*	8.0	92.0	7.4	92.6
Item 5 *To adapt activities to the family's interests and needs*	11.4	88.6	9.3	90.7
Item 6 *To respond to family input for the agenda and activities of the home visit*	53.4	46.6	53.7	46.3
Relationship with Family				
Item 1 *To interact sociably with parent(s), focusing on child development*	8.0	92.0	7.4	92.6
Item 2 *To set the tone for positive interactions*	8.0	92.0	7.4	92.6
Item 3 *To express positive emotions about the home visit*	9.1	90.1	3.7	96.3
Item 5 *To engage other family members if present during the home visit*	48.9	51.1	48.1	51.9
Item 7 *To reflect on family's life and activities in relation to child's Development*	25.0	75.0	24.1	75.9

Item 8 *To show respect and acceptance of the family, home, culture, and Lifestyle*	4.5	95.5	1.9	98.1
Item 9 *To discuss sensitive issues respectfully and reflectively*	37.5	62.5	38.9	61.1
Facilitation of Parent-Child Interaction				
Item 1 *To elicit ongoing parent-child interactions during the home visit*	44.3	55.7	37.0	63
Item 2 *To promote developmentally supportive interactions*	64.8	35.2	61.1	38.9
Item 3 *To engage parent and child together*	19.3	80.7	20.4	79.6
Item 4 *To support parent responsiveness to child cues*	47.7	52.3	46.3	53.7
Item 5 *To directly encourage or reinforce positive parent-child Interactions*	54.5	45.5	44.4	55.6
Item 6 *To help parents use available resources to support child Development*	6.8	93.2	9.6	90.4
Non-Intrusiveness and Collaboration				
Item 1 *To encourage the parent's ideas and interests for interactions with child*	54.5	45.5	48.2	51.8
Item 2 *To avoid intruding on or ignoring parent-child interactions*	37.5	62.5	37.0	63
Item 3 *To keep parent in the "teacher" role*	40.9	59.1	38.9	61.1
Item 4 *To follow the lead of parent and child in pace and activities*	12.5	87.5	11.1	88.9
Item 5 *To allow parent-child interactions to continue uninterrupted*	31.8	68.2	33.3	66.7

**"Needs Training" is defined as a score of 2.00 or less and "Adequate" or above is defined as a score of 3.00 or greater.*

Table 9

Observed Home Visitor Practice: Individual Home Visitor Scores

	Responsiveness to Family		Relationship with Family		Facilitation of Parent-Child Interaction		Non-Intrusiveness and Collaboration		Home Visit Practice Scales	
	Mean (SD)	Range	Mean (SD)	Range	Mean (SD)	Range	Mean (SD)	Range	Mean (SD)	Range
Home Visitor 1	2.50 (0.71)	1.00	2.50 (0.71)	1.00	1.50 (0.71)	1.00	1.50 (0.71)	1.00	8.00 (2.83)	4.00
Home Visitor 2	2.86 (0.69)	2.00	2.57 (0.79)	2.00	1.29 (0.49)	1.00	1.86 (0.90)	2.00	8.57 (1.40)	4.00
Home Visitor 3	3.57 (0.53)	1.00	4.71 (0.95)	3.00	4.00 (0.82)	2.00	3.71 (0.76)	2.00	16.00 (2.00)	6.00
Home Visitor 4	1.80 (0.84)	2.00	2.20 (0.45)	1.00	1.40 (0.89)	2.00	1.60 (1.34)	3.00	7.00 (3.39)	8.00
Home Visitor 5	3.20 (0.45)	1.00	5.00 (0.00)	0.00	2.80 (1.64)	4.00	3.20 (0.84)	2.00	14.20 (1.48)	4.00
Home Visitor 6	3.00 (0.53)	2.00	3.63 (0.74)	2.00	2.13 (0.64)	2.00	3.38 (1.06)	3.00	12.13 (2.10)	7.00
Home Visitor 7	4.25 (0.50)	1.00	4.75 (0.96)	2.00	4.00 (0.82)	2.00	4.25 (0.96)	2.00	17.25 (0.50)	1.00
Home Visitor 8	3.25 (1.26)	3.00	3.00 (0.82)	2.00	2.50 (1.00)	2.00	3.50 (0.58)	1.00	12.25 (2.87)	6.00

Home Visitor 9	3.43 (0.79)	2.00	5.00 (0.82)	2.00	3.14 (1.21)	3.00	3.14 (1.46)	4.00	14.71 (3.30)	9.00
Home Visitor 10	2.00 (0.63)	2.00	2.17 (0.75)	2.00	1.67 (0.52)	1.00	1.33 (0.52)	1.00	7.17 (1.83)	5.00
Home Visitor 11	2.67 (0.52)	1.00	2.33 (0.82)	2.00	1.50 (0.55)	1.00	3.00 (1.41)	4.00	9.50 (2.51)	6.00
Home Visitor 12	3.25 (0.96)	2.00	4.00 (1.15)	2.00	2.25 (1.26)	3.00	3.00 (1.83)	4.00	12.50 (4.43)	10.00
Home Visitor 13	3.50 (1.29)	3.00	3.75 (1.26)	3.00	2.75 (1.26)	3.00	3.25 (1.50)	3.00	13.25 (3.30)	8.00
Home Visitor 14	3.71 (1.11)	3.00	4.57 (0.98)	3.00	2.43 (1.90)	6.00	2.57 (1.90)	5.00	13.29 (5.02)	15.00
Home Visitor 15	5.00 (1.73)	3.00	5.33 (0.58)	1.00	4.33 (1.15)	2.00	3.33 (1.15)	2.00	16.00 (6.25)	12.00
Home Visitor 16	3.00 (1.22)	3.00	4.60 (1.52)	4.00	2.60 (1.52)	4.00	2.40 (1.14)	3.00	12.60 (4.72)	11.00
Home Visitor 17	2.00 (n/a)	n/a	4.00 (n/a)	n/a	3.00 (n/a)	n/a	3.00 (n/a)	n/a	12.00 (n/a)	n/a
Home Visitor 18	2.33 (1.15)	2.00	2.33 (0.58)	1.00	1.00 (0.00)	0.00	1.33 (0.58)	1.00	7.00 (2.00)	4.00

** The potential range of the Home Visit Practice Scales is from 4.00 to 28.00. The potential range of each subscale is from 1.00 to 7.00. Home visitors could receive a score of 0.00 on a subscale if that subscale could not be scored for a given observation.*

Table 10

Summary of Simple Regression Analyses for Relationship between Observed Home Visitor Practice and Years of Experience

	Full Sample			Hispanic Subsample		
	B	*SE B*	β	*B*	*SE B*	β
Years of Experience	.111	.170	.162	.038	.175	.055

Note: R^2 = .026 for the Full sample (p = .522); R^2 = .003 for the Hispanic subsample (p = .830)

Table 11

Categorization of Home Visitor-Parent "Cultural Match"

	Full Sample (n = 88)	Hispanic Subsample (n = 54)
Race/Ethnicity (%)		
Hispanic	57.1	70
White	36.7	30
Black	6.1	0
Native Language (%)		
English	63.9	41.9
Spanish	36.1	58.1
Immigration Status (%)		
Born in the United States Mainland	72.9	63.3
Immigrated to the United States Mainland	27.1	36.7

Table 12

Summary of Simple Regression Analyses for Relationship between Observed Home Visitor Practice and Degree of Cultural Match

	Full Sample			Hispanic Subsample		
	B	*SE B*	B	*B*	*SE B*	β
Degree of Cultural Match	.399	.526	.081	.748	.632	.162

Note: R^2 = .007 for the Full sample (p = .451); R^2 = .026 for the Hispanic subsample (p = .242)

Table 13

Summary of Simple Regression Analyses for Relationship between Observed Home Visitor Practice and Later Parent-Child Interactions

	Full Sample			Hispanic Subsample		
	B	*SE B*	β	*B*	*SE B*	β
HOVRS-A+ Time 1	-.367	.180	-.225*	-.485	.212	-.319*
PICCOLO Time 1	.384	.092	.457**	.266	.111	.323*
Group Assignment	–	–	–	-2.778	1.819	-.213

Note: R^2 = .214 for the Full sample; R^2 = .283 for the Hispanic subsample. *p < .05, **p < .001

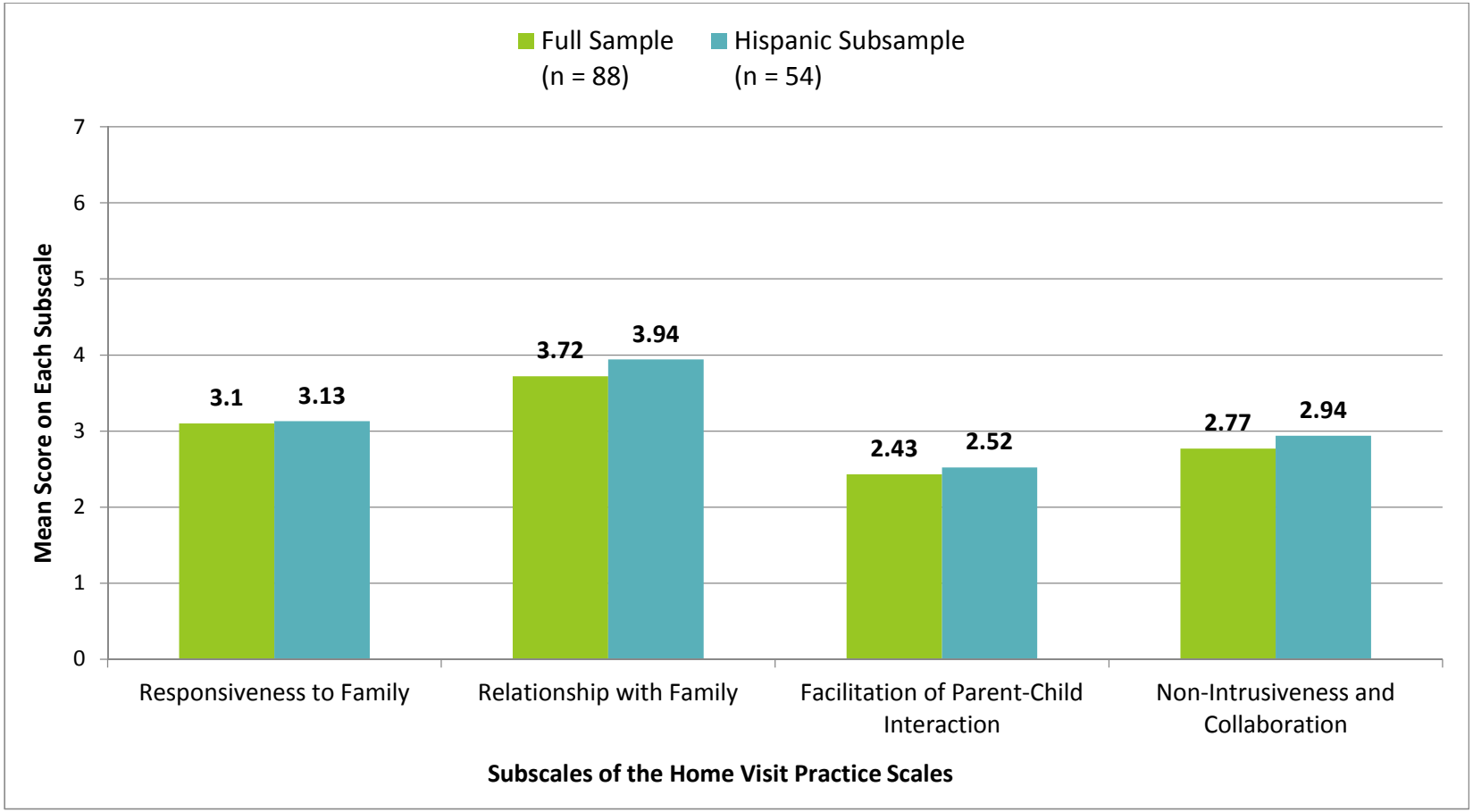

Figure 1. Mean scores on each of the four scales of the Home Visit Practice Scales averaged across all observed home visits for both the full sample and the Hispanic subsample.

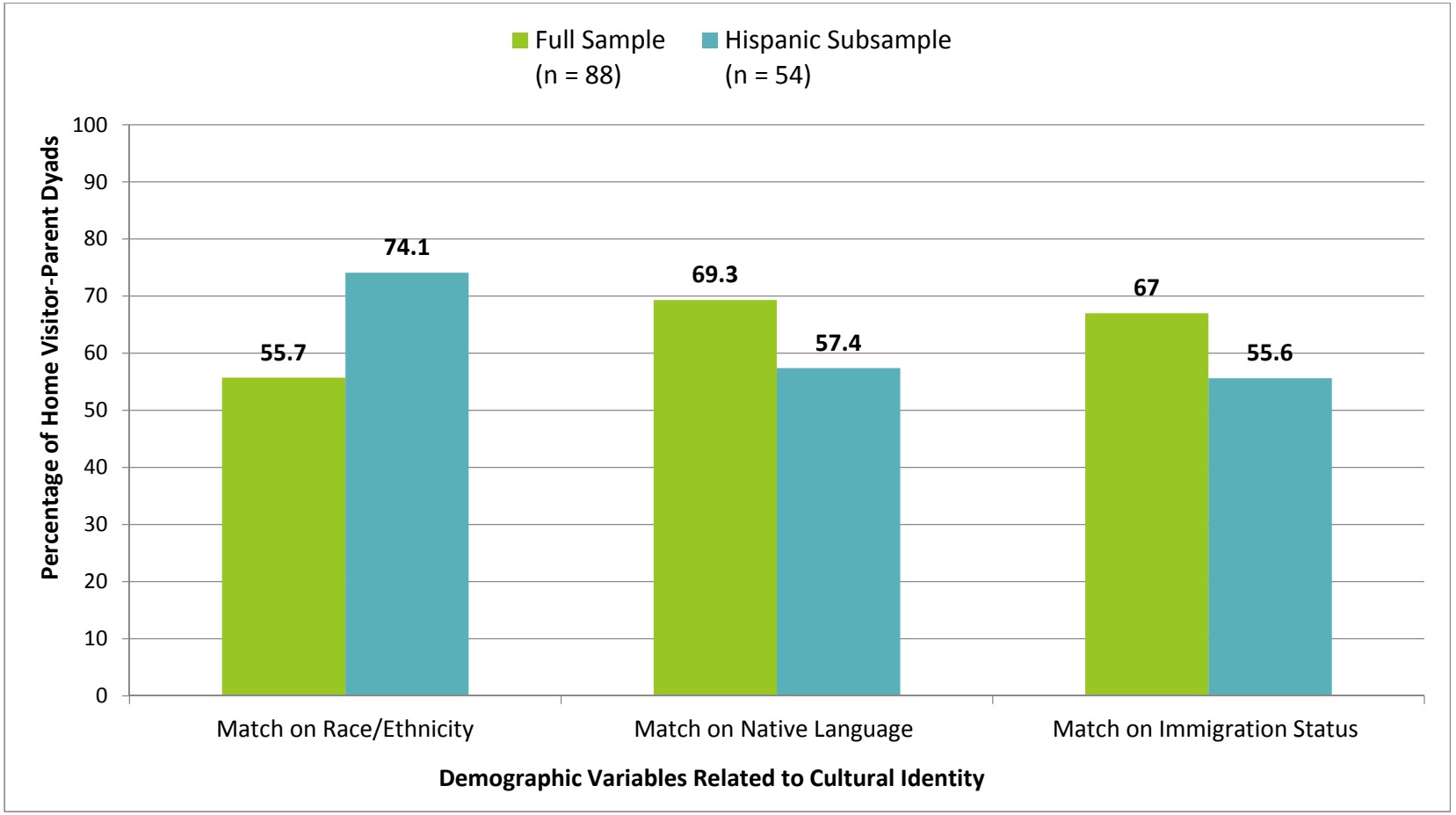

Figure 2. Percentage of home-visitor parent dyads that match on each of the culturally-salient demographic variables measured (i.e., race/ethnicity, native language, and immigration status) for both the full sample and the Hispanic subsample.

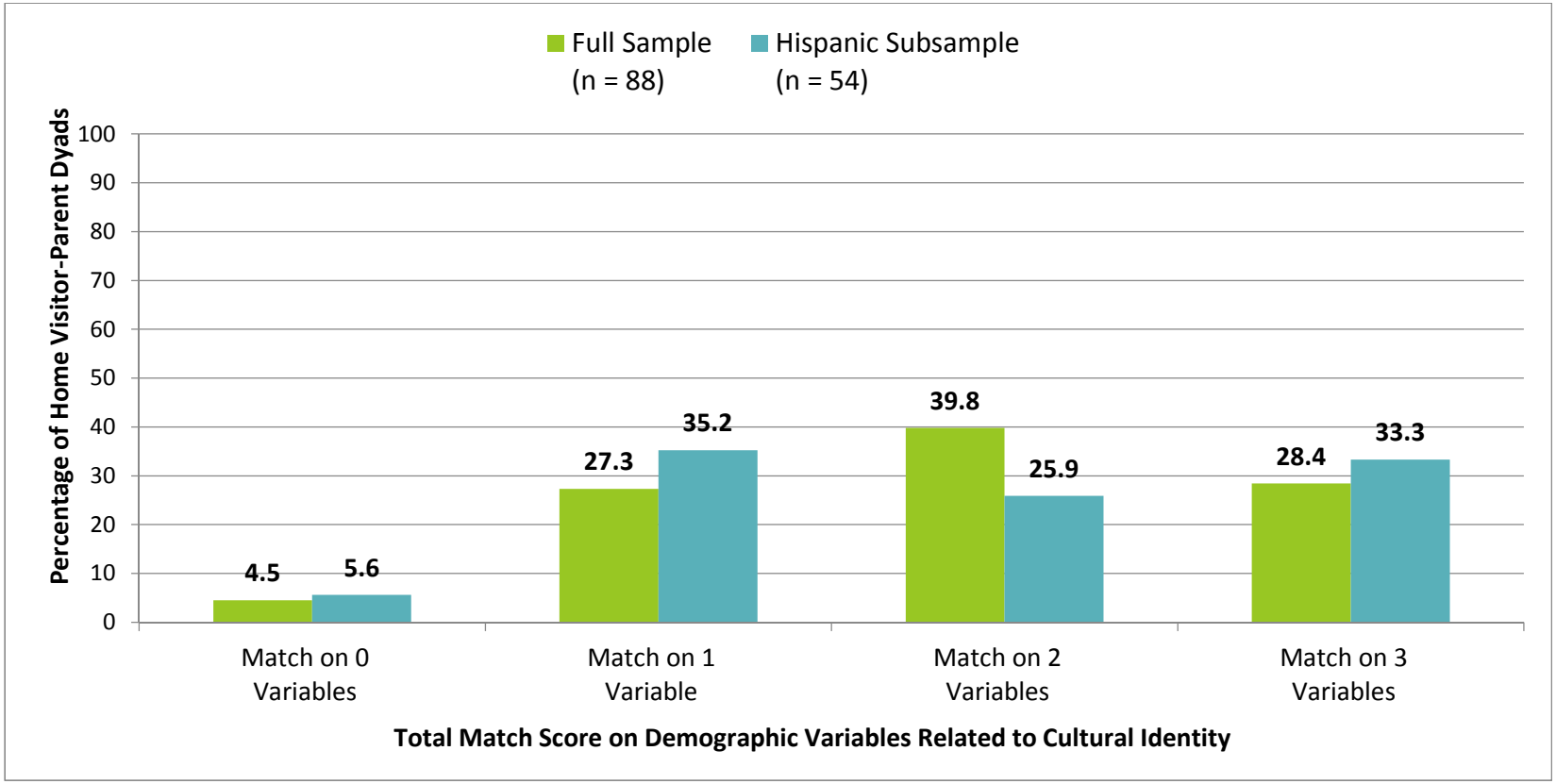

Figure 3. Percentage of home-visitor-parent dyads in the full sample and the Hispanic subsample that matched on none of the three culturally-salient demographic variables measured (total match score = 0), one of the three culturally-salient demographic variables measured (total match score = 1), two of the three culturally-salient demographic variables measured (total match score = 2), or all three of the culturally-salient demographic variables measured (total match score = 3).

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Appendix A

Home Visitor Consent Form

Building Children's Communication & Language Skills:

A Partnership with the Little Talks Program of Lehigh University

October 2014

Dear Early Head Start Child Development Partner:

I am working with your Early Head Start program to look at ways that home visitors can best support families and their children. Along with staff from Early Head Start, I will be introducing a new program called Little Talks to Early Head Start families. I am asking you to participate in a program evaluation, before you begin Little Talks, so that we can see how it helps children grow in their language and communication. Please know that the Little Talks team includes Dr. Tom Power from Children's Hospital of Philadelphia (CHOP) and Dr. Lori Roggman from Utah State University.

Your participation will involve the collection of information from the families you serve as well as providing your perspective of the home visiting experience. I am asking you to collect information about the children's communication and language skills, parent-child interaction, and parenting perceptions. The Little Talks team will provide you with training and materials. You will collect this information four times across 24 home visits. Here is how you will collect the information:

Children's Communication and Language: Videotape you and the child while playing together for 6 minutes. We will provide training for the specific ways in which you can play with the child to bring out his/her language skills. These videos will be watched by members of our team to note the child's communication skills through gesturing, babbling, and talking. Additionally, you will ask the parents to complete a checklist of their child's vocabulary.

Parent-Child Interaction: To look at the ways in which parents teach and interact with their child, we would like you video tape the parent and child together for about 10 minutes during a home visit. These videos will be watched by members of our team who will note the different ways in which parents and children interact.

Parenting perceptions: You will ask parents to complete brief questionnaires about how competent they feel about parenting their young child and their involvement in learning

activities with their child. Additionally, you will also ask the parent to complete a questionnaire about how they generally feel. We are asking for this measure because when parents are sad or stressed it often can affect the way in which they interact with their child and their children's language development.

In addition, to collecting information from families, we would like to ask your participation in collecting information from home visits four times across 24 home visits. We are asking you to video tape 30-minutes of your home visit, when you are discussing topics related to the child's growth and development. These videos will be watched by our team to see how home visitors and families interact together. Lastly, we will periodically review files on participating families to collect information on the collaborative goals and corresponding activities that occur during home visits.

All of the information described above will be confidential, except as specified by law (e.g., report of harm to yourself or others). You will not put any identifying information on the forms and video recordings will be destroyed at the end of this program's evaluation. Only members of the Little Talks team will have access to your information or watch the video clips from the home visits. Video recordings will be stored securely at Lehigh University. We will not share information about you as an individual with Early Head Start administration or staff.

We do not anticipate that these assessments pose serious risks to you. Your participation is voluntary. If you wish, you can decline an assessment procedure or stop your participation at any time, without harming your relationship with Community Services for Children, Inc., or with Lehigh University.

If at any time, you have concerns or questions about the assessments you can talk to your home visitor or contact me at 610-758-5656 or phm3@lehigh.edu. You may also contact Susan Disidore in the Office of Research at Lehigh University at 610-758- 3020.

To participate, please sign this form below. You will receive a copy of this letter.

Thank you for considering my invitation to participate in our evaluation of Early Head Start home visiting.

Sincerely,
Patti Manz, Ph.D.
Associate Professor & Director of School Psychology

I would like to participate in the evaluation of Early Head Start. I understand that I will collect information from the parents to whom I provide home visiting services. As part of the assessments, I will video tape four 30-minute portions of the home visits, when I am discussing child development topics with my families. I will also video four 10-minute segments when parents and children are interacting during the home visits. Lastly, I'll video tape my play with the children for 6 minutes, 4 times during this program. I understand that the information and video tapes will be shared among the Little Talks Team, which includes Drs. Manz, Roggman

and Power. I feel that the activities of this study were fully explained to me and I had the opportunity to ask questions.

_____

Printed name

_____

Signature

Appendix B

Home Visitor Demographic Form

Date:_____

- **Name ___**_____
- **How many Early Head Start families do you currently work with? _____**
- **Gender** ☐ Male ☐ Female
- B**irth date**: ___ / ____ / ___
- **How many years have you worked for EHS? _____years**
- **Have you previously worked for a different home visiting program?** ☐ Yes ☐ No
    - **How long did you work for that home visiting program? _____** years
- **Number of years lived in the United States? _____**
    - **If you were not born in the United States, in what country were you born? _____**
- **What is your native language?** ☐ English ☐ Spanish ☐ Other _____
- **What is your ethnicity?** ☐ Spanish/Hispanic/Latino ☐ Black/African-American
  ☐ White ☐Asian ☐ N. American Indian or Alaskan Native ☐ Other:_____
- **Please check your level of education (can select more than one option):**
  ☐ Received GED ☐ High School Graduate ☐ Two-year college degree
  ☐ Child Development Associate (CDA) ☐ Four-year college degree ☐ Master's degree

  Please list any other degrees or training credential that you may have: _____

Appendix C

Parent Consent Form (English)

Building Children's Language Skills: A Partnership with the Little Talks Program of Lehigh University

October 2014

Dear Early Head Start Parent/Guardian:

I am working with your Early Head Start program to look at ways that home visitors can best support families and their children. Early Head Start and I will also introduce a new program, called Little Talks, to Early Head Start families. I am asking you to participate in a program evaluation, before you begin Little Talks. This is for us to measure how the program helps children grow in their language and communication. The Little Talks team includes Dr. Tom Power from Children's Hospital of Philadelphia and Dr. Lori Roggman from Utah State University.

I am asking for your permission to assess your child and to video record parts of home visits. I am also asking you to complete surveys about parenting. The assessments will be done four times across 24 home visits. Here is how the assessments will be done:

> Your home visitor will play with your child in a way that encourages communication skills. These skills include talking, babbling, and pointing. She will video record her play with your child. The Little Talks team will watch the tapes. We will note how your child communicates.
>
> To look at the ways in which you teach and interact with your child, your home visitor will video tape you and your child together for about 10 minutes. These videos will be watched by members of the Little Talks team. We will note the different ways in which you interact with and teach your child.
>
> We will also ask you to complete surveys about how you are involved in your child's learning activities at home and how you feel about your parenting skills. We will ask you to complete surveys about your child's vocabulary. We will also ask you to complete surveys about feelings of sadness and stress. We ask these questions to find out more about how parents' feelings relate to home visiting and interactions with children.

Four times over 24 home visits, your home visitor will video record a time when the two of you are talking about your child's development. These videos will be watched by the by the University team. They will note the ways in which your home visitor teaches you about children's development. The video recordings will always be stored securely at Lehigh University. Last, we will review your home visitors' notes about the child development or parenting goals discussed in home visits. We will note the number of home visits you have completed and how long your child has been enrolled in Early Head Start.

For each of the four assessments, we will provide $30 to thank you for your time. You could receive $120 for completing all assessments.

All of the information described above will be confidential, except as specified by law (e.g., report of harm to yourself or others). Any identifying information on the forms will be removed. Videos will be destroyed at the end of this program's evaluation. Only members of the University team will have access to your information. We will not share your personal responses to the parenting questions with the Early Head Start. We may share information about your child's communication skills with the program staff to improve home visiting services. We may also share portions of the videos with your home visitor and her supervisor to improve home visiting services. We will write reports based on information collected for the whole program. You will not be personally identified.

Your participation in this study is voluntary. You may stop participating at any time without putting your relationship with Community Services for Children, Inc. or Lehigh University at risk. We don't feel that your participation in the assessments presents serious risks to you or your child.

If at any time, you have concerns or questions about the assessments you can talk to your home visitor. You can contact me at 610-758-5656 or phm3@lehigh.edu. You may also contact Susan Disidore in the Office of Research at Lehigh University at 610-758- 3020.

To participate, please sign this form below. You will receive a copy of this letter.

Thank you for considering my invitation to participate in our evaluation.

Sincerely,
Patti Manz, Ph.D.
Associate Professor at Lehigh University and Director of Little Talks

---

I would like to participate in the evaluation. I understand that I will complete 4 assessments across 24 home visits. As part of the assessments, my home visitor will video record four child development lessons. She will record her play with my child. She will also record times when I am together with my child. I understand that the information I provide on parenting surveys, my child's language assessments, and the video tapes will be shared among the University team. The team includes Drs. Manz, Roggman, and Power. I

feel that the activities of this study were fully explained to me. I felt I had the opportunity to ask questions.

_____
Printed name

_____
Signature

_____
Relationship to Early Head Start child

Appendix D

Parent Consent Form (Spanish)

Construcción de las habilidades de comunicación y lenguaje de los niños:
Una colaboración con el programa de Pequeñas Conversaciones de Lehigh University

.

Octubre 2014

Querido Early Head Start Padre/Guardián:

Estoy trabajando con su programa de Early Head Start para buscar las maneras de que las visitadoras domiciliarias pueden mejor apoyar a las familias y sus hijos. Early Head Start y yo introduciremos un nuevo programa, "Pequeñas Conversaciones", a las familias de Early Head Start. Le pido su participación en una evaluación del programa, antes de empezar Pequeñas Conversaciones. Esto es para que midamos cómo el programa ayuda a los niños a mejorar su lenguaje y la comunicación. Por favor, sepan que el equipo de Pequeñas Conversaciones incluye al Dr. Tom Power del Children's Hospital of Philadelphia (CHOP) y la Dra. Lori Roggman de Utah State University.

Estoy pidiendo su permiso para evaluar a su niño, grabar en vídeo partes de las visitas a domicilio y que usted completará cuestionarios sobre la paternidad. Haríamos las evaluaciones en cuatro ocasiones durante 24 visitas a domicilio. Aquí es cómo vamos a hacer las evaluaciones:

Su visitadora domiciliaria jugará con su hijo de una manera que anima a las habilidades de comunicación. Estas habilidades incluyen hablando, balbuceando y señalando. Ella se grabará en vídeo su juego con su hijo. El equipo de Pequeñas Conversaciones mirará las cintas. Nosotros notarámos cómo se comunica su hijo.

Para mirar las maneras en que usted enseña y se relaciona con su hijo, su visitadora domiciliaria grabará en vídeo usted y su hijo juntos por unos 10 minutos. Estos vídeos serán mirados por miembros del equipo de Pequeñas Conversaciones Notarámos las diferentes maneras en que usted interactúa y enseña a su hijo.

También le pediremos que usted llene cuestionarios sobre las maneras en que usted está involucrado en las actividades de aprendizaje de su hijo en casa y cómo se siente sobre sus habiliadades como padre. Le pediremos que llene cuestionarios

sobre el vocabulario de su hijo. También le pediremos que llene cuestionarios sobre sentimientos de tristeza y estrés.

Cuatro veces durante 24 visitas a domicilio, su visitadora domiciliaria grabará vídeo de un momento en que ustedes están hablando sobre el desarrollo de su hijo. El equipo de la universidad mirará estos vídeos. Ellos notarán las maneras en que la visitadora domiciliaria le enseña del desarrollo de niños. Las cintas de vídeo siempre se guardarán en forma segura en Lehigh University. Por último, vamos a revisar las notas de sus visitadoras domiciliarias sobre el desarrollo del niño o los objetivos de paternidad discutidos en las visitas domiciliarias. Notaremos el número de visitas domiciliarias que used haya completado. También notaremos el tiempo que su hijo ha sido inscrito en Early Head Start.

Para cada una de las cuatro evaluaciones, le proporcionaremos $30 para darle las gracias por su tiempo. Podría recibir $120 para completar todas las evaluaciones.

Toda la información descrita anteriormente será confidencial, excepto según lo especificado por la ley (por ejemplo, informe de daño a sí mismo o a otros). Cualquier información de identificación en los formularios será eliminado. Las cintas de vídeo serán destruido al final de la evaluación de este programa. Solo miembros del equipo de la universidad tendrán acceso a su información. No compartiremos sus respuestas personales a los cuestionarios de los padres con el programa de Early Head Start. Podamos compartir información sobre las habilidades de comunicación de su hijo con los empleados del programa para mejorar los servicios de visitas domiciliarias. También, podamos compartir porciones de los vídeos con su visitadora domiciliaria y su supervisor para mejorar los servicios de visitas domiciliarias. Escribiremos informes basados en la información recogida durante todo el programa. Usted no será identificado personalmente.

Su participación en este estudio es voluntaria. Puede dejar de participar en cualquier momento sin poner en peligro su relación con Community Services for Children, Inc. o Lehigh University. No creemos que su participación en las evaluaciones presente graves riesgos para usted o su niño.

Si en algún momento, usted tiene preocupaciones o preguntas sobre las evaluaciones, puede hablar con su visitadora domiciliaria. Puede ponerse en contacto conmigo al 610-758-5656 o phm3@lehigh.edu. También puede ponerse en contacto con Susan Disidore en la Oficina de Investigación de Lehigh University en 610-758- 3020.

Para participar, por favor firme este siguiente formulario. Usted recibirá una copia de esta carta.

Gracias por considerar mi invitación a participar en nuestra evaluación.

Sinceramente,
Patti Manz, Ph.D.
Profesor Asociado en Lehigh University y Director de Pequeñas Conversaciones

Me gustaría participar en la evaluación. Entiendo que completaré 4 evaluaciones durante 24 visitas a domicilio. Como parte de las evaluaciones, mi visitadora domiciliaria grabará en video cuatro lecciones de Pequeñas Conversaciones. Ella se grabará en vídeo su juego con mi hijo. También, ella grabará momentos en que estoy junto con mi hijo. Entiendo que la información que proporciono en los cuestionarios, evaluaciones del lenguaje de mi hijo, y las cintas de vídeo serán compartidos entre el equipo de la universidad. El equipo incluye a los Dres. Manz, Roggman y Power. Siento que las actividades de este estudio fueron completamente explicadas a mí. Tuve la oportunidad de hacer preguntas.

_____

Nombre escrito

_____

Firma

_____

Relación con el niño de Early Head Start

Appendix E

Parent Demographic Form (English)

Today's date:_____

Child Name_____

Parent Name_____

Date enrolled in Early Head Start _____

Date started with current home visitor _____

<u>You and Your Child</u>

- **Your relationship to child** ☐ Mother ☐ Father ☐ Grandparent ☐ Other relative ☐ Foster parent
- **Your gender** ☐ Male ☐ Female
- **Your birth date**: ___ / ____ / ___
- **Are you the child's primary caregiver?** ☐ Yes ☐ No
- **Do you live with the child?** ☐ Yes ☐ No
- **Were you born in the United States?** ☐ Yes ☐ No
    - ***If no:*** **Number of years lived in the United States?** _____

      In what country were you born? _____
- **Your employment outside the home:** ☐ Full-time ☐ Part time ☐ Not employed
- **Your marital status:** ☐ Married ☐ Never married ☐ Separated/Divorced ☐ Widowed ☐ Common law marriage
- **Amount of schooling that you completed:** ☐ Less than 9th grade ☐ Some high school, didn't finish ☐ Received GED ☐ High School Graduate ☐ High school + some college or trade school ☐ Four-year college degree ☐ College +
- **Your native language:** ☐ English ☐ Spanish ☐ Haitian-Creole ☐ Russian ☐ Arabic ☐ Polish ☐ Cambodian ☐ Vietnamese ☐ Laotian ☐ Other _____
- **Child's gender** ☐ Male ☐ Female

- **Child's birth date**: ___ / ____ / ___
- **Child's ethnicity:** ☐ Spanish/Hispanic/Latino ☐ Black/African-American ☐ White ☐Asian ☐ N. American Indian or Alaskan Native ☐ Other:_____
- **If you identify as a certain nationality (e.g. Dominican, Haitian, etc.), please specify:** _____

❖ **Child's native language:** ☐ English ☐ Spanish ☐ Haitian-Creole ☐ Russian ☐ Arabic ☐ Polish ☐ Cambodian ☐ Vietnamese ☐ Laotian ☐ Other _____

- **Does child participate in any other education or child care program?** ☐ Yes ☐ No
  - **If yes, please list the name of the program: _____**

❖ **Has the child been diagnosed with special needs?** ☐ Yes ☐ No

- ***If yes:*** ☐ Speech and language impairment ☐ Developmental delay ☐ Vision impairment ☐ Hearing impairment ☐ Chronic health impairment ☐ Other _____

❖ **What language do you speak most often at the home?** ☐ English ☐ Spanish ☐ Haitian-Creole ☐ Russian ☐ Arabic ☐ Polish ☐ Cambodian ☐ Vietnamese ☐ Laotian ☐ Other _____

Appendix F

Parent Demographic Form (Spanish)

Fecha:_____

Nombre del niño:_____

Nombre del padre: _____

Usted y Su Niño

- **Su relación al niño** ☐ Madre ☐ Padre ☐ Abuelo/Abuela ☐ Otro pariente ☐ Padre de crianza
- **Su sexo** ☐ Masculino ☐ Femenino
- **Su fecha de nacimiento**: ___ / ____ / ___
- **¿Ud. es el cuidador principal del niño?** ☐ Sí ☐ No

  ¿Ud. vive con el niño? ☐ Sí ☐ No
- **¿Cuántos años Ud. vive en los Estados Unidos?** _____
- **Si usted no nació en los Estados Unidos, ¿en qué país nació?**_____
- **Su empleo fuera el hogar :** ☐ De jornada completa ☐ De media jornada ☐ No empleado
- **Su estado civil:** ☐ Casado ☐ Nunca casado ☐ Aparado/divorciado ☐ Viudo ☐ Unión de hecho
- **Cantidad de educación que Ud. completó:** ☐ Menos de noveno grado ☐ Algunos de secundaria, no terminé

  ☐ Recibí Desarrollo Educativo General (El GED) ☐ Graduado de escuela secundaria

  ☐ Escuela secundaria + algunos de universidad o escuela vocacional ☐ Titulo universitario de 4 anos ☐ Universidad +
- **Su lengua materna:** ☐ Inglés ☐ Español ☐ Criollo-haitiano ☐ Ruso

  ☐ Árabe ☐ Polaco ☐ Camboyano ☐ Vietnamita ☐ Laosiano ☐ Otra: _____
- **Sexo del niño** ☐ Masculino ☐ Femenino
- **Fecha de nacimiento del niño**: ___ / ____ / ___

- **Raza del niño:** ☐ Español/Hispano/Latino ☐ Moreno/Afroamericano ☐ Blanco ☐Asiático ☐ Indo norteamericano o nativo de Alaska ☐ Otra:_____
- **Si Ud. Se identifica como una determinada nacionalidad (por ejemplo, Dominicano, Haitiano, etc), por favor especifique:** _____
- **Lengua materna del niño:** ☐ Inglés ☐ Español ☐ Criollo-haitiano ☐ Ruso ☐ Árabe ☐ Polaco ☐ Camboyano ☐ Vietnamita ☐ Laosiano ☐ Otra: _____

❖ **¿El niño participa en cualquier otro programa de educación o programa de cuidado?** ☐ Sí ☐ No

- **En caso afirmativo, indique el nombre del programa por favor:** _____

❖ **¿El niño ha sido diagnosticado con necesidades especiales?** ☐ Sí ☐ No

- **En caso afirmativo:** ☐ Impedimento del habla y lenguaje ☐ Retraso en el desarrollo ☐ La discapacidad visual ☐ La discapacidad auditiva ☐ Impedimento de la salud crónico ☐ Otra _____

❖ **¿Qué lengua habla con más frecuencia en el hogar:** ☐ Inglés ☐ Español ☐ Criollo-haitiano ☐ Ruso ☐ Árabe ☐ Polaco ☐ Camboyano ☐ Vietnamita ☐ Laosiano ☐ Otra: _____

Appendix G

Assessment Administration Guidelines

Video Assessment Guidelines

General instructions

1. Please complete the Video Assessment Tracking sheet for each video.
2. At the beginning of each video, please state the ***child's first name only*.**
3. Sound:
    a. Keep the camera as close as possible without disrupting your activities.
    b. If possible, limit background noise, such as the TV or air conditioner.
    c. Encourage others to speak at a regular conversational volume.
4. Visual:
    a. Align the camera so that the fronts or sides of faces are usually visible.
    b. If possible, do not face the camera toward a light or sunny window.
5. Battery: If possible, please charge the camera battery between assessments. If the battery runs out, you can use the other battery in the bag or plug the camera in while recording.
6. Memory card: Each memory card should hold all videos for 5 families. If you have assessed 4 or 5 families, please switch to the empty card. A Lehigh staff member can take the full one and return it if needed.

7. Siblings: If the child has a sibling who may be present at the time of a video assessment, you may want to find another quiet activity that will engage that sibling *during the ECI and PICCOLO*. Siblings can be in the home visit video if they are part of the home visit and the parent is comfortable with it. Contact the Little Talks team if you need any materials to distract a sibling.
8. Consistency: Please try to keep the adults in the videos consistent across time, especially for the PICCOLO.

Video Assessment Guidelines

Home visit video

Time: 30 minutes
Materials: video camera
People: CDP, parent, child, anyone who would typically be part of that home visit
Instructions:

- Record a 30-minute segment of your usual home visit, including Little Talks and child development activities (such as ICP goals, literacy activities, and Little Voices for Healthy Choices). It can also include other home visit activities if you would ordinarily address these within the 30 minutes.
- You can stop the video if there are breaks in the home visit and resume recording once the visit continues.

Parent-child interaction

Parenting Interactions with Children: Checklist of Observations Linked to Outcomes (PICCOLO):

People: Child and one parent *(please try to have the same parent over time!)*
Materials: Three book and toy bags provided by Little Talks team, video camera
Time: 10 minutes

Instructions to give to parents:

"I will record you playing with [child's name] for ten minutes. You have three bags of materials that you can use to play. Please start with the first bag with the books. Whenever you would like, you can move on to the second bag and then the third bag. Do you have any questions?"

Child expressive skills

Early Communication Indicator (ECI):

People: CDP and child

Materials: Little People house or barn and related toys, video camera

Time: 6 minutes

Instructions:

- Set up the toys before you start timing the 6 minutes
- Try to get the child facing the camera
- Try to limit sibling and parent involvement in the interaction

Being the play partner:

- Use the child's home language
- Encourage the child to interact with you and the toys, but do not direct the interactions.
- Follow the child's lead.
- Comment on what the child is doing, and/or describe what you are doing.
    - Use questions sparingly.

Curriculum Vitae

T A M I Q U E J . R I D G A R D

590 TOWNSHIP LINE ROAD• PENLLYN, PA 19422
(617)447-1976 • TAMIQUE.RIDGARD@GMAIL.COM

EDUCATION

Ph.D. **School Psychology. Lehigh University, Bethlehem, PA.** ***Expected 2017***
APA Accredited, NASP Approved.
Specialization: Pediatric School Psychology
Dissertation: *Supporting positive parenting in the context of home visiting: An exploration of observed home visitor practice*
Committee: Patricia Manz, PhD (Chair), Thomas Power, PhD, Lori Roggman, PhD, L. Brook Sawyer, PhD

M.Ed. **Human Development. Lehigh University, Bethlehem, PA. May 2013**
Qualifying Thesis Project: *Does the boat float? Caregiver-child science interactions in families from ethnic minority backgrounds and families from low income backgrounds*.
Committee: Robin Hojnoski, PhD (Chair), Patricia Manz, PhD, Thomas Hammond, PhD

B.S. **Psychology. Yale University, New Haven, CT. May 2010**
Senior Thesis: *What children understand about social class*

AWARDS AND RECOGNITION

American Academy of School Psychology Memorial Scholarship 2015
American Academy of School Psychology

Graduate Student Leadership and Service Award 2015
Lehigh University College of Education

Public Policy Institute Graduate Student Scholarship 2015
George Washington University and the National Association of School Psychologists

Lehigh University Forum Student Research Grant 2012
Lehigh University

Student Affiliates in School Psychology Diversity Award 2012
American Psychological Association: Division 16

Yale Senior Mellon Forum Grant 2010
Yale University

Enhancing Diversity in Graduate Education (EDGE) Travel Grant 2009
University of Southern California and the National Science Foundation

CLINICAL EXPERIENCE

Pre-doctoral Psychology Intern August 2016 – Present
Devereux Advanced Behavioral Health, Center for Effective Schools (APA Accredited)
King of Prussia, PA

Support schools and other child-serving organizations to implement evidence-based practices through indirect methods of service delivery (e.g. coaching and consultation). Responsibilities include providing systems-level consultation and trainings for parents, teachers, and administrators to support the implementation of (1) an evidence-based model of treatment foster care for Devereux's Philadelphia foster care program and (2) Positive Behavior Interventions and Supports (PBIS) and effective classroom management strategies in urban public schools and alternative education settings.
Supervisors: Lisa Thomas, PhD, NCSP, Laura Rutherford, PhD, NCSP

Psychology Practicum Student October 2015 – December 2015
Children's Hospital of Philadelphia, Anxiety Behavior Clinic
Philadelphia, PA

Implemented evidence-based interventions for anxiety disorders (e.g., Coping Cat) during individual therapy with school-age children in partnership with my direct supervisor, gained familiarity with the Anxiety Disorders Interview Schedule, and participated in group supervision with licensed psychologists specializing in anxiety disorders and other psychology trainees.
Supervisor: John Guerry, PhD

Psychology Practicum Student April 2015 – July 2015
Children's Hospital of Philadelphia, Center for Management of ADHD
Philadelphia, PA

Conducted diagnostic evaluations for children experiencing difficulties related to inattention, hyperactivity, and impulsivity and wrote comprehensive evaluation reports.
Supervisor: Jennifer Mautone, PhD, NCSP, ABPP

Psychology Practicum Student March 2015 – July 2015
Lehigh Valley Health Network, Children's Primary Care Clinic
Allentown, PA

Partnered with the clinic's behavioral health specialist to provide integrated behavioral health services. Provided therapy and behavior management training for families of young children with behavior difficulties, consulted with families and schools for children experiencing difficulties at school, and provided brief psychoeducation to families related to appropriate school services for chronically ill children.
Supervisor: Patricia Manz, PhD

Psychology Practicum Student September 2014 – June 2015
Allentown School District, Central Elementary School
Allentown, PA

Administered intelligence and achievement assessments, conducted structured observations, administered rating scales, determined eligibility for special education services, wrote comprehensive psychoeducational evaluation reports, implemented academic interventions, and provided crisis intervention.
Supervisor: Chad Rutherford, EdS, NCSP

Psychology Practicum Student September 2014 – January 2015
Allentown School District, High School Alternative Education Program
Allentown, PA

Co-led group therapy sessions focused on emotion regulation and problem solving, co-led individual therapy sessions, and provided crisis intervention for high school students receiving special education services.
Supervisor: Chad Rutherford, EdS, NCSP

Psychology Practicum Student September 2013 – August 2014
Children's Hospital Of Philadelphia, Early Head Start
Philadelphia, PA

Provided consultation to home visitors around supporting positive parent-child relationships, effective behavior management strategies, and early intervention services; developed and presented a series of workshops for parents on evidence-based positive parenting strategies; provided family therapy and behavior management training to individual families during home visits; and supported the development and implementation of a new group socialization format that incorporated more empirically-supported practices.
Supervisor: Evelyn Ridgeway, PhD

Psychology Practicum Student September 2013 – August 2014
Children's Hospital Of Philadelphia, Cobbs Creek Primary Care Center
Philadelphia, PA

Partnered with attending psychologists and pre-doctoral psychology interns to provide integrated behavioral health services. Provided behavioral health consultation services to attending pediatric physicians and pediatric residents, provided family therapy and behavior management training to families with children experiencing a range of difficulties, provided brief psychoeducation to families during pediatric well-visits, made referrals to community mental health organizations, and participated in interdisciplinary psychosocial rounds.
Supervisor: Jennifer Mautone, PhD, NCSP, ABPP

Psychology Practicum Student September 2013 – June 2014
Upper Darby School District, Kindergarten Center
Upper Darby, PA

Administered intelligence and achievement assessments, conducted structured observations, administered rating scales, determined eligibility for special education services, wrote psychoeducational evaluation reports, provided consultation to teachers, and participated in student support team meetings.
Supervisor: Amy Hawkins, PhD, NCSP

RESEARCH EXPERIENCE

Principal Investigator January 2015 – Present
Supporting Positive Parenting in the Context of Home Visiting: An Exploration of Observed Home Visitor Practice
Bethlehem, PA

My dissertation utilizes an observational measure of home visitor practice to examine which empirically-supported practices home visitors use to support parenting, the variability in these practices, factors that may account for this variability, and whether these practices are associated with improved parenting outcomes. Home visitor practice will be examined in both the full sample and a subsample of Hispanic families.
Research Mentor: Patricia Manz, PhD

Graduate Trainee September 2012 – Present
Pediatric School Psychology Leadership Training Grant
Bethlehem, PA

Participated in psychology practicum experiences with a behavioral health focus; disseminated information related to the importance of trauma-informed care and the assessment of sleep in schools through relevant publications; and provided supervision to graduate students completing their first year of practicum.
Research Mentors: George DuPaul, PhD, Edward Shapiro, PhD, Thomas Power, PhD

Graduate Student Leader May 2016 – August 2016
Calculated Actions to Deliver Racial and Ethnic Equity in Education
Prague, Czech Republic

Led undergraduate students working in both the United States and the Czech Republic through a three phase exploratory research project (i.e., comprehensive literature review, cross-cultural fieldwork, development of teacher diversity training and social inclusion video game) designed to address issues of racial and ethnic inequality in education.
Research Mentor: Christine Novak, PhD

Research Team Member May 2012 – June 2016

Little Talks Research Grant

Bethlehem, PA

Developed curriculum materials, program structure, research materials, and home visitor training sessions for *Little Talks*; a federally funded research project designed to integrate an evidence-based, book sharing intervention into an Early Head Start home visiting program. Provided biweekly supervision to one participating home visitor; coded video data; conducted exit interviews with participating home visitors and families; and attended regular planning meetings.

Research Mentor: Patricia Manz, PhD

Principal Investigator May 2012 – August 2014

Does the Boat Float? Research Project

Bethlehem, PA

Developed and executed my qualifying research project through Lehigh University, which explored the interactions of parents and their preschool-age children during a shared science activity. Families from ethnic minority backgrounds and low socioeconomic backgrounds were recruited through local preschool programs.

Research Mentor: Robin Hojnoski, PhD

Research Team Member July 2011 – June 2012

Center for Adolescent Research in Schools (CARS) Research Grant

Bethlehem, PA

Served as a classroom facilitator at Lehigh University for this multi-site evaluation study. Administered academic and mental health assessments to determine eligibility for participation. Coordinated the implementation of interventions for high school students with academic and behavioral difficulties using the Check & Connect program.

Research Mentor: Lee Kern, PhD

Data Collector September 2011 – May 2012

Preschool Numeracy Research Project

Bethlehem, PA

Administered early literacy and early numeracy assessments using the Individual Growth and Development Indicators with students attending participating preschool programs.

Research Mentor: Robin Hojnoski, PhD

Selected Presenter April 2010

Yale Undergraduate Psychology Symposium
New Haven, CT

Selected to present my senior thesis on children's understanding of social class at the first annual Yale Undergraduate Psychology Symposium. This research project explored how children assigned qualities (e.g., nice) to peers based on perceived social class.
Research Mentor: Kristina Olson, PhD

Research Assistant September 2008 – May 2010

Social Cognitive Development Lab, Yale University
New Haven, CT

The Social Cognitive Development Lab focused on children's sharing behavior, ideas about ownership, and development of morals. Responsibilities included administrative tasks, creating research stimuli, and conducting social psychology experiments in the lab.
Research Mentor: Kristina Olson, PhD

SUPERVISION AND TEACHING EXPERIENCE

Peer Supervisor September 2015 – May 2016

Peer Group Supervision, Lehigh University.
Bethlehem, PA

Provided weekly supervision to a group of 5 third and fourth year doctoral students in the school psychology program completing clinical practicum rotations in schools and early childhood programs (e.g., Head Start).
Supervisor: Christine Novak, PhD

Little Talks Supervisor October 2014 – November 2015

Little Talks Research Project
Bethlehem, PA

Provided bi-weekly supervision to an Early Head Start home visitor to support implementation of an evidence-based book sharing intervention. Supervision included performance feedback based on the review of video data and weekly integrity checklists.
Supervisor: Patricia Manz, PhD

Teaching Assistant August 2014 – December 2014

"Children in Context" Course, Lehigh University
Bethlehem, PA

Created course content and presented lectures for this required diversity course designed to develop competence in culturally responsive practice.
Supervisor: Patricia Manz, PhD

PROFESSIONAL EXPERIENCE

SAT Instructor December 2011 – June 2013
Kaplan, Inc.
Bethlehem, PA

Taught weekly classes designed to prepare high school students for the SAT exam, proctored practice SAT exams, and completed administrative and organizational tasks.

Mathematics Intern July 2010 – June 2011
Brooks School
North Andover, MA

Responsibilities included teaching two high school mathematics classes (i.e., Algebra One and Two), supervising extracurricular activities, and overseeing a girls' dormitory.

Teaching Assistant September 2009 – May 2010
Wexler Grant Community School
New Haven, CT

Supported academic instruction and behavior management in a kindergarten classroom.

Yale Alumni Community Service Fellow June 2009 – August 2009
Massachusetts 2020
Boston, MA

Assisted with data analysis and grant research to promote extending learning time in schools as a way to support student success.

Camp Counselor July 2008
Girls Leadership Institute
South Hadley, MA

Counselor at Rachel Simmons' internationally-recognized girls' leadership camp designed to promote young girls self-efficacy and emotional intelligence.

OTHER RELATED EXPERIENCES

Board Member December 2014 – Present
My Sister's Keeper Collective
Philadelphia, PA

Founding member of this 501(c)(3), non-profit organization established to ensure that at-risk girls (i.e., those involved in the child welfare system or the juvenile justice system) have access to a high-quality secondary school experience.

Yale College Alumni Interviewer December 2011 - Present
Yale Alumni Schools Committee
Lehigh Valley, PA

I participate in the admissions process for Yale College by interviewing regular decision applicants and submitting a brief recommendation regarding the applicant's potential for success at Yale to the admissions office.

Selection Committee Member February 2016, March 2017
College of Education Graduate Student Leadership and Service Award
Bethlehem, PA

As a former recipient of the College of Education Graduate Student Leadership and Service Award in 2015, I served as a student representative to the selection committee in 2016 and 2017.

Student Organizer October 2014
Shaping the Future: Psychology in Education
Bethlehem, PA

Developed and organized the first *Shaping the Future* event at Lehigh University, designed to increase the awareness of career opportunities at the intersection of psychology and education among students from culturally diverse backgrounds.

Lehigh University Student Representative January 2014 – June 2014
14th Annual Cross-University Mentoring Conference
Bronx, New York

Completed administrative tasks and communicated important information to Lehigh students for this student-led, collaborative mentoring conference hosted by Fordham University.

Student Volunteer January 2009 – April 2009
Yale Child Study Center, Developmental Disabilities Clinic
New Haven, CT

Filmed the diagnostic assessments of children referred to the clinic due to concerns related to Autism Spectrum Disorder.

Student Volunteer September 2008 – May 2009
High Meadows Department of Children & Families Residential Treatment Facility
Hamden, CT

Organized structured activities and provided opportunities for appropriate social interaction for male clients with behavioral disorders and cognitive deficits.

PUBLICATIONS

Ridgard, T. J. & Hojnoski, R. (in preparation). Does the boat float? Caregiver-child science interactions in families from ethnic minority backgrounds and families from low income backgrounds.

Mautone, J. A., Booster, G. D., & **Ridgard, T. J.** (2017). Current practice: Schools vs. alternative settings. In M. Burns (Ed.), *Introduction to school psychology: Controversies and current practice.* New York, NY: Oxford University Press.

Manz, P. H., Eisenberg, R. A., Gernhart, A. L., Faison, J., Laracy, S., **Ridgard, T. J.**, & Pinho, T. (2016). Engaging Early Head Start parents in a collaborative inquiry: The co-construction of Little Talks. *Early Child Development & Care*.

Ridgard, T. J., Laracy, S. D., DuPaul, G. J., Shapiro, E. S., & Power, T. J. (2015). Trauma-informed care in schools: A social justice imperative. *NASP Communique.*

Laracy, S. D., **Ridgard, T. J.**, & DuPaul, G. J. (2015). The importance of sleep for school functioning: Guidelines for assessment and intervention. *NASP Communique*.

Schwartz, B.S., Elmore, C.A., Backe, S.B., Fiorelli, J.A., **Ridgard, T.**, Robins, P.M., Mautone, J.A., & Power, T.J. (2014, October). Integrated behavioral health in urban pediatric primary care: A step forward in preventative care. *Progress Notes, 38*(3), 14.

Faison, J., & **Ridgard, T.** (2014). Institutional Barriers to Successful Graduate Education. *NASP Communique*.

PRESENTATIONS AT PROFESSIONAL MEETINGS

Eisenberg, R. A., Stricker, L., **Ridgard, T. J.**, & Moleski, M. (accepted). *Training foster parents in positive behavior support: A pilot implementation.* Paper to be presented at the annual conference of the Family Focused Treatment Association, Chicago, IL.

Ridgard, T. J. & Manz, P. H. (accepted). *Research to practice? Direct observation of home visitor implementation of empirically-supported practices.* Poster to be presented at the biennial meeting of the Society for Research in Child Development, Austin, TX.

Ridgard, T. J., Telesford, A., Davidson, P., & Novak, C. (2017, February). *School psychologists' role in promoting desegregation to support educational equality.* Poster presented at the annual conference of the National Association of School Psychologists, San Antonio, TX.

Novak, C., Davidson, P., **Ridgard, T. J.,** & Telesford, A. (2016, October). *Calculated actions to deliver racial and ethnic equity in education (CADRE3):Understanding desegregation through cross-cultural examination.* Paper presented at the annual conference of the Northeastern Educational Research Association, Trumbull, CT.

Ridgard, T. J. (2016, April). *Supporting positive parenting in the context of home visiting: An exploration of observed home visitor practice.* Paper presented at the annual Options Without Walls Doctoral Studies Symposium, Philadelphia, PA.

Manz, P. H., Eisenberg, R. A., Gernhart, A. L., Faison, J., Laracy, S., Pinho, T., **Ridgard, T. J.,** & Manzo, J. C. (2016, February). *Little Talks: Collaboratively promoting emergent literacy among low-income, Hispanic children.* Paper presented at the annual conference of the National Association of School Psychologists, New Orleans, LA.

Ridgard, T. J. (2015, June). *The reflection of Early Head Start's theory of change in home visitor practice: Facilitating positive parent-child interactions.* Paper presented at the annual Cross-University Collaborative Mentoring Conference, Philadelphia, PA.

Ridgard, T. J., Faison, J. D., & Shapiro, E. S. (2015, February). *Diversifying school psychology: Are we doing enough?* Paper presented at the annual conference of the National Association of School Psychologists, Orlando, FL.

Ridgard, T. J. & Hojnoski, R. (2015, February). *School psychologists' role in promoting early science learning.* Paper presented at the annual conference of the National Association of School Psychologists, Orlando, FL.

Manzo, J. C., **Ridgard, T. J.,** Manz, P. H., Eisenberg, R. A., Gernhart, A. L., Faison, J. D., Whitenack, J. & Wallace, L. (2015, February). *Enhancing parent-child book sharing through home visiting.* Paper presented at the annual conference of the National Association of School Psychologists, Orlando, FL.

Ridgeway, E., Williams, A., & **Ridgard, T. J.** (2014, July). *Creating purposeful socializations: supporting prenatal, infant and toddlers' school readiness through family engagement.* Paper presented at the annual Birth to Three Institute in Washington, D.C.

Ridgard, T. J., Hojnoski, R., & Faison, J. D. (2014, July). *Does the boat float?: Caregiver-child science interactions in families from ethnic minority and low income backgrounds*. Poster presented at the annual Head Start Research Conference, Washington D.C.

Manzo, J. C., Manz, P. H., Eisenberg, R. A., **Ridgard, T. J**, Faison, J., Gernhart, A. L., & Whitenack, J. (2014, July*). Little Talks: A partnership with Early Head Start home visitors to enhance caregiver-child book sharing.* Poster presented at the annual Head Start Research Conference, Washington D.C.

Ridgard, T. J. (2014, June). *Does the boat float? Caregiver-child science interactions: Moving from methods to dissemination.* Paper presented at the annual Cross-University Collaborative Mentoring Conference, New York, NY.

Manz, P. H., Cho, P., Eisenberg, R. A., Manzo, J. C., Gernhart, A. L., Faison, J., & **Ridgard, T. J**. (2014, April). *A transactional relationship between practice and research: Developing family-educator interventions for Latino children.* Symposium presented at the Society for Research in Child Development, Special Topic Meeting: Strengthening Connections among Child and Family Research, Policy and Practice, Alexandria, VA.

Eisenberg, R. A., Cho, P., Manz, P. H., Manzo, J. C., **Ridgard, T. J**., Faison, J., Gernhart, A. L., & Whitenack, J. (2014, April). *Partnership processes in Early Head Start home visiting: Performance feedback in supervision for intervention implementation.* Poster presented at the Society for Research in Child Development, Special Topic Meeting: Strengthening Connections among Child and Family Research, Policy and Practice, Alexandria, VA.

Manzo, J. C., Manz, P. H., Eisenberg, R. A., & **Ridgard, T. J.** (2014, February). *Development of a book sharing curriculum for preschool home visiting*. Poster presented at the annual conference of the National Association of School Psychologists, Washington, D.C.

Manz, P. H., Eisenberg, R. A., Manzo, J. C., & **Ridgard, T.J.** (2014, February). *Collaborative use of integrity monitoring and performance feedback in supervision.* Poster presented at the annual conference of the National Association of School Psychologists, Washington, D.C.

Ridgard, T. J. (2013, May). *Does the boat float?: Parent science talk in ethnic minority families from low income backgrounds.* Paper presented at the annual Cross-University Collaborative Mentoring Conference, New York, NY.

Eisenberg, R. A., Gernhart, A. L., Manz, P. H., Laracy, S., Faison, J., Pinho, T. & **Ridgard, T.J.** (2013, February*). Culturally relevant book talk: dialogic reading feasibility and acceptability.* Poster presented at the annual conference of the National Association of School Psychologists, Seattle, WA.

INVITED LECTURES AND PRESENTATIONS

Ridgard, T.J. (2017). *Integrated Behavioral Health.* Invited by Professor Patricia Manz, PhD to guest lecture for the *Advanced School and Family Interventions* course of the School Psychology Program at Lehigh University.

Ridgard, T.J. (2016). *Integrated Behavioral Health.* Invited by Professor Patricia Manz, PhD to guest lecture for the *Advanced School and Family Interventions* course of the School Psychology Program at Lehigh University.

Ridgard, T. J., Faison, J. D., & Shapiro, E. S. (2015). *Shaping the Future: Opportunities for Graduate Training in Psychology and Education.* Paper presented at the annual Mid-Winter Meeting of the Council of Directors of School Psychology Programs, Hollywood, FL.

Mautone, J.A. & **Ridgard, T.J.** (2014). *School Law.* Invited by Terri L. Randall, MD to present at the School Education Lecture Series for the Child and Adolescent Psychiatry Fellowship Program at the Children's Hospital of Philadelphia.

Ridgard, T.J. (2014). *School Consultation.* Invited by Professor Nataliya Zelikovsky, PhD to guest lecture for the *Consultation and Education* course of the Clinical Psychology Psy.D Program at La Salle University.

EDITORIAL EXPERIENCE

2014	Article Review	Submission to *Early Education and Development.* Mentored by Robin Hojnoski, PhD, Lehigh University

2014	Article Review	Submission to *School Psychology Review.* Mentored by Jennifer Mautone, PhD, Children's Hospital of Philadelphia
2014	Article Review	Submission to *School Mental Health.* Mentored by Jennifer Mautone, PhD, Children's Hospital of Philadelphia

PROFESSIONAL AFFILIATIONS

National Association of School Psychologists (student affiliate)

Northeastern Educational Research Association (student affiliate)

Society for Research in Child Development (student affiliate)