



Exploring Changes in Home Visitors' Perspectives in the Context of a Professional Development Activity

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Abstract

Research-based professional development opportunities for early childhood home visitors are valuable to the Early Head Start-Home-Based Option (EHS-HBO) and to the home visiting field broadly to strengthen effective practice. We explored EHS-HBO home visitors' ($N = 5$) perspectives on effective practice through a professional development activity that included viewing videos of their own practice, analyzing the video and assessment data of their practice and parent–child interactions, and reflection. A convergent mixed methods multiple-case study was used. A variety of skills were noted within each case as indicators of effective practice, suggesting that a plethora of complex skills are needed to work with families. Across-case analytic strategies were used to compare subthemes, codes, and substantial statements across cases to generate themes. Two major themes emerged from our data analysis across cases: practicing self-reflective consciousness and building foundations for parent–child interactions. The findings have implications for professional development activities.

Keywords Effective practice · Home visitors · Professional development

Quality of Home Visiting Practices

Early childhood home visiting includes a variety of programs to meet the varying needs of families with young children. Within the context of the natural home environment, home visitors (HV) engage families in meaningful activities to promote children's developmental outcomes. Programs providing these services to families experiencing a variety of environmental challenges such as low income, mental health concerns, teen parenting, and others, have expanded dramatically since the onset of the Maternal Infant and Early Childhood Home Visiting (MIECHV) Program funding in 2010 (Health Resources and Service Administration, 2010). Currently, MIECHV provides over \$400 million annually to states, territories, and tribal entities across the country. This investment comes with expectations that families receiving services will benefit in meaningful ways

toward their children's development and well-being. While there is broad evidence for overall program effectiveness and the subsequent designation of "evidence-based" programs (HomVEE Reports), individual evaluations show inconsistent and small-to-modest effects on target outcomes (Filene et al., 2013). One potential reason for unrealized impacts is that observed home visits are often described as "adequate" in quality (Korfmacher et al., 2019; Peterson et al., 2018). Stable mechanisms or processes for strengthening quality are needed.

Evaluations of home visiting quality often measure constructs related to program model fidelity (the extent to which an evidence-based model is implemented as designed with the appropriate time, dosage and curriculum) and program compliance (the extent to which staff document and meet regulatory requirements) (see Korfmacher et al., 2019). More attention to HV practices and techniques is needed. Parent engagement has been identified as an important factor related to child outcomes and research shows that relationship-based, strengths-based, collaborative, and parent–child oriented strategies are best practices for engaging parents and effective home visiting (Roggman et al., 2019). These strategies are where observations and measures should focus. Recent studies examining the behavior of HVs while actively engaged during visits have revealed that while HVs overall

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have positive relationships with families and are responsive, they have difficulty engaging in some of the more technical aspects of their work, such as supporting parent–child interactions and engaging families with multiple challenges (Peterson et al., 2018). Supporting parent–child interactions through active engagement during visits requires a strong set of relational and coaching skills, especially when families may be experiencing mental health concerns, substance abuse, domestic violence, and other difficulties. The HV's role is to coach and support the parent in teaching their child, and strategies such as observation, feedback, and encouragement are related to increases in developmentally supportive parent–child interactions (Fisher et al., 2016). Effectively supporting HVs to develop and use these strategies is essential for realizing positive outcomes for children and families.

Professional Development Needs

The Head Start Program Performance Standards (HSPPS; Administration for Children and Families [ACF]) mandate that staff, including Early Head Start HVs are given ongoing professional development and training opportunities. Research-based professional development opportunities are valuable to the Early Head Start-Home-Based Option (EHS-HBO) and to the home visiting field to potentially strengthen HV efficacy with families regardless of the home visiting model. In other words, there is consensus that HVs need professional development to learn, maintain, and expand their skills (Sandstrom et al., 2020). Preliminary studies are needed to identify and eventually disseminate research-based practices for promoting HV effectiveness within the context of professional development.

Research-based professional development activities for HVs are undergirded by strategies such as self-reflection and opportunities to reflect upon observed practices and skills (Marshall & Virmani, 2017). Reflective strategies tend to be helpful in strengthening existing practice and producing positive changes (Dunst & Trivette, 2009; Krick Oborn & Johnson, 2015). The purpose of the present study was to explore HVs' perspectives and experiences with a professional development activity that included reflecting (make meaning out of practice by responding to open-ended questions), viewing (videos of their own practice), analyzing (interpreting video and assessment data on practice and parent–child interactions), and further reflecting on their own practice and initial reflections. These processes are routinely used in the education literature and increase use of effective practice (e.g., Chu, 2012; Radloff & Guzey, 2017; Tripp & Rich, 2012). These processes may be likened to self-reflexivity, which is an ongoing, critical self-analysis of understanding and interpreting how personal experiences, thoughts, actions, and biases impact how professionals work

with families (Allen, 2000). HVs who practice self-reflexivity may think deeply about their practice, interactions, and professional development, in turn shaping how they translate perspectives into practice with families.

Professional development in which the practitioners are actively involved can relate new information to experience, inform direct application to their daily responsibilities (Dunst & Trivette, 2009; Knowles, 1980) and is generally effective in producing changes in practices. Furthermore, opportunities to practice new skills and engage in reflection and self-assessment are key to supporting implementation of new practices (Dunst & Trivette, 2009). Coaching has been used in many fields to deliver these key aspects of professional development in a way that supports and enhances the capacity of the person being coached (Knight, 2007). Coaching focused on delivery of performance feedback has potential to blend key implementation supports with data that identify the extent to which actual implementation is observed.

Use of Video for Coaching

Studies of video use in professional development found that, rather than relying on face-to-face meetings, performance feedback can be effectively delivered via video (e.g., Marturana & Woods, 2012; Pianta et al., 2008). According to adult learning theory, adults learn best when they are actively engaged and can externally process the activity (Friedman et al., 2012; Taylor & Marienau, 2016). Video can support home visiting practices by capturing the richness and complexity of home visitor–caregiver interactions in a setting that is typically unobserved. One key outcome of video use in professional development is enhancement of the professional's powers of reflection and analysis (Rich & Hannafin, 2009; Whitehead & Fitzgerald, 2007). Additionally, the use of video can heighten cognitive, emotional, and motivational processes (Seidel et al., 2011). While used more regularly in classrooms and early intervention (Part C) programs serving young children with special needs and their families, video-based coaching is gaining traction as a tool to support home visiting, especially since the onset of the COVID-19 pandemic. Supervisors and HVs are beginning to embrace the use of recorded home visits for reflecting on how to more effectively engage with families and support interactions during visits.

Observational Measurement

The implementation of coaching and reflection needs to be undergirded by effective measurement. Observational measures of home visiting and parent–child interactions provide

the context for these activities. Incorporating measures that have strong psychometric properties and encompass socially valid, evidence-based practices is crucial. To this end, programs have begun to incorporate observational measures of home visit activities and parent–child interactions. The Design Options for Home Visiting Evaluation (DOHVE) team has compiled information about observation measurement tools (DOHVE, 2012). One widely used measure of home visit quality is the *Home Visit Rating Scales-Adapted and Extended* (HOVRS-A+; Roggman et al., 2012). The HOVRS-A+ measures a variety of evidence-based home visiting practices through direct or recorded observations. These practices are linked to family engagement during visits, parent–child interaction, and program outcomes (Roggman et al., 2016, 2019). This measure is also independent of specific home visiting models and can be used across a range of relationship-focused programs. A related measure of parent–child interactions has also been developed by Roggman and colleagues and captures specific types of parenting behaviors that are developmentally supportive. The *Parenting Interactions with Children: Checklist of Observations Linked to Outcomes* (PICCOLO; Roggman et al., 2013) can also be coded live or through recorded observations and is related to a variety of positive outcomes for young children. While observational measures of parent–child interactions are plentiful, the HOVRS-A+ and PICCOLO measures have been developed and examined together and provide a cohesive observational measurement strategy.

Experiences with Professional Development Activities

Because HVs may feel unrecognized and undervalued by their programs (West et al., 2018), an important part of professional development is not only to learn HVs' preferences for professional development activities but also to capture their experiences. Home visitors report that professional development activities that focus on promoting parent–child interactions, self-reflection, and family engagement in visits are desirable (Sandstrom et al., 2020). The purpose of the current study is to address the dearth of published literature that captures HVs' actual experiences during professional development activities.

Research Questions

Three research questions guided this study: (a) How do home visitors perceive effective home visiting practice after reviewing a video-recorded observation of their home visit? (b) How do home visitors perceive effective home visiting practice after reviewing their scores from two

observational measures, PICCOLO and HOVRS-A+? and (c) How do home visitors perceive effective home visiting at the beginning of the professional activity compared to the end of it?

Method

This was a convergent mixed methods multiple-case study carried out to understand how HVs perceive effective home visiting practice after reviewing a video-recorded observation of their home visit and reviewing their assigned scores from two measures (PICCOLO and HOVRS-A+). According to Yin (2018), case studies are a method of research used “to investigate a contemporary phenomenon in depth and its real-world context” (p. 286). In a convergent mixed methods design, researchers collect and analyze quantitative and qualitative data at or near the same time, and then compare or combine the results (Creswell & Plano Clark, 2017). To understand how HVs perceive effective practice, each home visitor participated in a professional development activity consisting of four sessions. During each session, participants were asked a specific set of qualitative reflection questions. The second session also included review of a previously recorded home visit, and the third session included review of data from the PICCOLO and HOVRS-A+. See the Appendix (online, supplementary file) for more details.

Context and Participants

There were six HVs at the one participating EHS-HBO program, which is part of a University center that includes a laboratory school, EHS-HBO, EHS center-based childcare, and a combination program that provides center-based care and home visiting for parents attending high school. The first and last authors are affiliated with this University center.

According to the Home Visiting Evidence of Effectiveness (HomVEE, 2016), the EHS-HBO model includes one weekly 90-min home visit and two group socialization events per month. According to the Head Start Program Performance Standards (HSPPS; ACF, 2016), a program must use a research-based curriculum. The participating EHS-HBO is a Parents as Teachers (PAT) affiliate in the western United States.

Participating HVs ($N=5$) nominated families with high likelihood of maintaining visits within the EHS-HBO program to participate in a video-recording of visits across five months. Of the eight nominated families, five families continued with the study to the end (see Table 1).

Two HVs are proficient in Spanish and one conducted their visits in Spanish based on family needs (see Table 2).

Table 1 Demographic characteristics of parents

	Age	Education	Ethnicity/race	Gender	Number of children	Living with partner
Parent 1	29	Some college	Native American	Female	3	Yes
Parent 2	26	High school or GED	Hispanic/Latinx	Female	3	No
Parent 3	21	Some college	White	Female	1	Yes
Parent 4	30	Bachelor's degree	Hispanic	Female	3	Yes
Parent 5	19	High school or GED	Hispanic/Latinx	Female	1	Yes

Table 2 Demographic characteristics of HVs

Participant's pseudonym	Age	Education	Ethnicity/race	Gender	Years of experience
Karri (Case 1)	n/d	Bachelor's degree	White	Female	10+
Mara (Case 2)	27	Bachelor's degree	White	Female	5+
Martia (Case 3)	51	Bachelor's degree	White	Female	10+
Mila (Case 4)	54	Bachelor's degree	Hispanic/Latinx	Female	10+
Shaunice (Case 5)	37	Associate's degree	White	Female	10+

Video Recorded Observations

Fifty-three total home visits, from five HVs with one target family each, were recorded across five months. All visits, except for nine home visits with one family, were recorded by the HVs using the Microsoft Surface Pro Tablets provided to them by EHS for their position. There was one family that requested that a member of the research team record their visits rather than the HV, which means that one HV had a research team member accompany her on nine visits with this family. The researcher sat on the floor with a video camera and attempted to be non-intrusive. For this family, home visits were recorded with a camera borrowed from a university-provided rental service for students. All HVs reported that this was the first time that their visits were video-recorded.

The videos were then uploaded to a secure Google Drive account by the HVs. This account was only accessible by the lead researcher and the HVs. All home visit videos were then transferred by a member of the research team to a password-protected Dropbox account to be accessed by coders. Spanish was the primary language used in nine home visits. These videos were translated to English by two Spanish-fluent members of the research team, then subtitled manually with Aegisub Subtitle Editor. A native Spanish speaker subsequently reviewed the videos to address any inaccuracies before they were accessed by coders.

Measures

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

This outcome and strengths-based measure was used to collect data on developmental parenting (Roggman et al., 2008). PICCOLO is a rating system that uses four conceptual constructs as scales of parental behavior during a home visit: (a) Affection; (b) Responsiveness; (c) Encouragement; and (d) Teaching. Within each scale there are seven or eight behaviors that are scored either a 0 [Absent], 1 [Barely], or 2 [Clearly]. Scores are then summed. PICCOLO uses a 10-min segment within the home visit wherein the behaviors are most likely to occur. PICCOLO's inter-rater reliability (i.e., agreement between raters) is 0.77 (Roggman et al., 2013).

Home Visit Rating Scales—Adapted and Extended (HOVRS-A+)

The conceptual constructs of HOVRS-A+ center on seven domains. The first four measure HV practices—(a) responsiveness to family (plan the home visit with input from the parent, and identify family strengths to support child development); (b) relationship to family (the HV interacts with all members of the family warmly and with respect); (c) facilitation of parent–child interaction (facilitates supportive parent–child interactions in a developmentally supportive

manner); (d) non-intrusiveness and collaboration (support the parent in being the child's primary teacher while not interrupting)—and the final three measure parent and child engagement: (e) parent–child interaction (parent and child interact positively in developmentally supportive manners); (f) parent engagement (parent participates in the home visit and interacts with the activities of the home visit); and (g) child engagement (child is interested and participates in the home visit). In each scale, there are 4 to 9 items that are scored a [1] Needs training; [3] Adequate; [5] Good; or [7] Excellent. This measure was used to collect data on effective home visiting practices after observing an entire home visit. HOVRS-A+ is used to provide feedback to programs to identify strengths and strategies that should be focused on to provide the best possible support for families. The first four scales are summed for a total practices score, the last three scales are summed for an engagement score, and then all scores are averaged and summed to create a final composite score; the higher the score, the better the home visit. The inter-rater reliability for this measure is 0.88 (Rogman et al., 2012).

Measures: Observer Training and Ratings

Three observers with graduate-level training rated the home visit video observations using the PICCOLO and HOVRS-A+ measures. Raters achieved interrater consistency by first participating in five training meetings across one month to discuss the measurements that would be used. Each observer scored 80% on a quiz about each measure before rating commenced, as recommended by the test authors. During training, videos were sourced from YouTube and were watched as a group to practice, and then new videos were independently observed. Observers reached 80% agreement on two consecutive practice videos for each of the two measures before official rating of video-recorded home visits occurred. Raters discussed their biases during the practice and rating phases to ensure any frustrations with the process were expelled before discussion and justification of ratings. This ongoing and open dialogue was anecdotally reported to keep any potential biases from affecting scores.

In total, the researchers rated 53 videos, 44 of which were in English, and nine of which were in Spanish but translated into English and subtitled. Consensus meetings with all observers were held approximately every three to five weeks for eight months. In these consensus meetings, ratings for each video were reviewed by the researchers. A similar consensus procedure was used for HOVRS-A+ and PICCOLO. The measures were discussed sequentially, and ratings were modified when there was either (a) not a majority agreement, or (b) a rater had enough evidence for their chosen rating. In other words, two of the three raters needed to have the same rating on an item. If there was no majority, the

relevant portion of the video was reviewed. The researchers then discussed the video segment and agreed upon a rating. If a rater disagreed with a rating, they had the opportunity to provide their reasoning and advocate for their rating based on evidence they gathered from the video segment. When there was full disagreement on an item, the measures were carefully reviewed, with focus on the wording of the item in the measure, and a consensus was found. For the HOVRS-A+, the test authors do recommend 85% agreement within one-point. Consensus coding was also used in this study to mitigate fatigue among the raters and allow for discussion and debate when needed (i.e., if one rater seemed firm that their rating was the best option). Krippendorff's Alpha was used to calculate inter-rater agreement among three raters; $\alpha=0.684$ for HOVRS-A+, $\alpha=0.863$ for PICCOLO, and indicate adequate inter-rater reliability (see Krippendorff, 2004).

Procedure for Professional Development Activity

The below methodological framework for the professional development activity (pre-interview, review of data, review of video, and post-interview) was partially inspired by the education field, particularly the emphasis on the use of video and data coupled with observation, analysis, and reflection (see Radloff & Guzey, 2017).

Each HV was given a pseudonym. Home visitors ($N=5$) individually met with a researcher four times within one month, for 20 total sessions that were all audio recorded. Sessions included varying numbers of questions: session 1, pre-interview (13 open-ended questions); session 2, review of video observations (video analysis of home visits, three questions); session 3, review of individual scores from measures and discussion of individual scores from three measures (three questions); and session 4, post-interview (same 13 questions as pre-interview plus three questions about their experiences with the professional development activity). See the Appendix (online, supplementary file) for interview questions from each phase.

Pre-interviews (Session 1)

Three experts in the home visiting field reviewed the questions prior to the implementation of the professional development activity and minor changes were made to promote clarity. The questions in the pre-interview and post-interview can be classified into three categories: triad ("In what ways can you encourage parent and child interaction during the visit?"), practice ("How do you promote parental responsiveness to their child, e.g., to a child's cues, emotions, words, during a home visit?"), and responsiveness to family ("In

what ways do you demonstrate being responsive to a family during a home visit?”).

Review of Video (Session 2)

One broad theme in the home visiting professional development literature is the inclusion of video and assessments (Innocenti & Roggman, 2018). The second session consisted of each HV reviewing a contiguous 20-min observational video segment of one of their highest scoring (via PICCOLO and HOVRS-A+) home visits. The first 10 min of the segment were a lead-up intended to provide HVs with a primer and to refresh their memories of the home visit. The next 10 min of the same segment were chosen for coding as a substantial amount of interaction occurring in the triad and/or with the home visit activity, and received the highest PICCOLO and HOVRS-A+ scores during the rating phase of this study. This “core” of the home visit, when the major activities are intended to promote the developmental aims of the program has been recommended by the test authors (Roggman, Cook, & Innocenti, unpublished HOVRS User’s Guide) as the ideal time to observe the visit to see the HVs’ typical practices. After viewing the video, the HVs were asked three questions about whether they thought the home visit was effective or ineffective.

Review of Data (Session 3)

The third session consisted of each HV reviewing their individual PICCOLO and HOVRS-A+ data, which they reported being familiar with, from the home visit that was featured in Session 2. Each HV was read a scripted description of the measure as a refresher before reviewing their data sequentially (i.e., PICCOLO and HOVRS-A+).

Post-interviews (Session 4)

The final session involved a post-interview, which included all 13 pre-interview questions plus three additional questions about their experiences with the professional development activity. Each participant received a \$25 gift card at the end of the post-interview.

Data Analysis

Sensitizing concepts from the HOVRS-A+ measure, the PICCOLO measure, and HV competencies (Institute for the Advancement of Family Support Professionals [IAFSP], 2018; Roggman et al., 2016) informed the qualitative data analysis (see Charmaz, 2003) and the interview questions (Edwards & Few-Demo, 2016; Walsh et al., 2020). Sensitizing concepts provide a general sense of reference and guidance in approaching qualitative data without providing

definitions of what to see or benchmarks; they are used to suggest directions and as a starting point for qualitative work (Patton, 2002). Sensitizing concepts informed interview guides and data analysis. From the HOVRS-A+, home visitor responsiveness to family, home visitor–family relationship, home visitor facilitation of parent–child interaction, and home visitor collaboration with family concepts informed our work. The PICCOLO emphasizes the parent’s affection, responsiveness, encouragement, and teaching and talking with the child (Roggman et al., 2013). The following sensitizing concepts from HV competencies also informed our work: (a) relationship-based family partnerships (IAFSP, 2018; Roggman et al., 2016), (b) effective home visits (IAFSP, 2018; Roggman et al., 2016), (c) professional practice (IAFSP, 2018) and professionalism (Roggman et al., 2016).

The 20 sessions, with question and response components, were transcribed verbatim by the graduate-level researcher. Before data analysis occurred, the transcriptions were individually provided to the HVs to give them the chance to read and reply with any questions or concerns about what was said within the sessions. No HVs replied via email or in-person with questions or concerns. Transcripts were uploaded for analysis to Dedoose Version 8.3.45 (2020), a web-based qualitative data analysis software.

To analyze the qualitative data, the researchers employed a thematic analysis approach (Braun & Clarke, 2006; Rossman & Rallis, 2017) to the interview data for each case. To begin, the transcribed data were analyzed following a framework from Braun and Clarke (2006) including generating initial codes and searching for subthemes within cases and themes across cases. Coding and theming processes were guided by answering the study’s research questions. Thematic analyses of all interview transcripts for each case employed emergent descriptive coding. Two analysts independently assigned an emergent descriptive code to each short segment of raw data within each case. Codes were then sorted into subthemes and themes during meetings between the two analysts. During the meetings, the analysts engaged in a fluid, interactive process of interpreting and re-interpreting the coded data to rework themes that adequately captured the data (Braun & Clarke, 2006).

For a comprehensive understanding of each case, we examined each case’s transcript data alongside the scores from the measures. We summed ratings from the four scales within the PICCOLO measure for each participant to produce individual PICCOLO scores, and scores of each scale of the HOVRS-A+ were averaged and then summed to create final scores for each participant. We also produced aggregate PICCOLO and HOVRS-A+ scores by calculating means and standard deviations for each scale. Summary statistics for the two measures are reported in Tables 3 and 4.

Table 3 PICCOLO summary statistics

Subscale	M	SD	Range
Parental affection	9.40	3.38	2–14
Karri (Case 1)	7.11	2.20	6–11
Mara (Case 2)	5.67	3.51	2–9
Martia (Case 3)	11.14	1.95	8–13
Mila (Case 4)	12.67	1.63	10–14
Shaunice (Case 5)	–	–	–
Parental responsiveness	8.65	4.34	2–14
Karri (Case 1)	4.89	1.34	3–7
Mara (Case 2)	3.33	2.52	1–6
Martia (Case 3)	11.50	2.44	8–14
Mila (Case 4)	13.17	1.69	11–14
Shaunice (Case 5)	–	–	–
Parental encouragement	5.77	4.80	0–13
Karri (Case 1)	1.67	1.41	0–4
Mara (Case 2)	1.33	1.53	0–3
Martia (Case 3)	7.88	4.16	1–13
Mila (Case 4)	11.33	1.97	8–13
Shaunice (Case 5)	–	–	–
Parental teaching	3.69	4.16	0–13
Karri (Case 1)	.56	.73	0–2
Mara (Case 2)	.33	.58	0–1
Martia (Case 3)	5.25	3.51	0–9
Mila (Case 4)	8.00	3.90	3–13
Shaunice (Case 5)	–	–	–

Within-cases analysis of qualitative data and consideration of individual measure scores (Yin, 2018) led to subthemes for each case. Next, we considered all the subthemes, codes, and example quotations as an aggregate. Across-case analytic strategies (Ayres et al., 2003) of comparison of subthemes, codes, and substantial quotes across cases were used to generate themes. Each participant was sent the findings of their case for member checking. Two participants responded and validated the findings.

The aggregate of the PICCOLO scores (see Table 3) demonstrates that parental affection was the highest domain and parental teaching was the lowest. The aggregate of the HOVRS-A+ scores (see Table 4) range from 3.56 to 4.94 indicating adequate to slightly below good.

Results

The research questions guiding our study examined how HVs perceive effective home visiting practice after reviewing a video-recorded observation of their home

Table 4 HOVRS-A+ summary statistics

Subscale	M	SD	Range
Responsiveness	3.67	.68	2–5
Karri (Case 1)	3.27	.47	3–4
Mara (Case 2)	3.71	.73	3–5
Martia (Case 3)	4.10	.57	3–5
Mila (Case 4)	3.44	.53	3–4
Shaunice (Case 5)	3.88	.82	3–5
Relationships	4.94	.83	3–6
Karri (Case 1)	4.18	.06	3–5
Mara (Case 2)	5.29	.73	4–6
Martia (Case 3)	5.50	.53	5–6
Mila (Case 4)	3.44	.53	3–4
Shaunice (Case 5)	4.75	.95	3–6
Facilitation of P–C interaction	3.56	1.27	1–6
Karri (Case 1)	2.81	.75	1–4
Mara (Case 2)	2.50	1.05	1–4
Martia (Case 3)	4.89	.60	4–6
Mila (Case 4)	4.89	.78	4–6
Shaunice (Case 5)	3.29	1.38	2–6
Nonintrusive collaboration	3.83	1.12	1–6
Karri (Case 1)	2.73	.79	1–4
Mara (Case 2)	3.33	1.03	2–5
Martia (Case 3)	4.78	.67	4–6
Mila (Case 4)	4.63	.52	4–5
Shaunice (Case 5)	3.86	.89	3–5
Parent–child interaction	4.46	1.55	1–7
Karri (Case 1)	3.00	1.10	1–4
Mara (Case 2)	3.67	1.63	2–6
Martia (Case 3)	5.33	.71	4–6
Mila (Case 4)	5.25	1.16	3–7
Shaunice (Case 5)	5.43	.98	3–7
Parent engagement	4.32	1.44	1–7
Karri (Case 1)	3.18	.87	1–4
Mara (Case 2)	3.50	1.76	2–6
Martia (Case 3)	5.11	1.05	3–6
Mila (Case 4)	5.00	1.39	3–6
Shaunice (Case 5)	5.00	1.17	4–7
Child engagement	4.85	1.44	2–7
Karri (Case 1)	4.54	1.04	3–6
Mara (Case 2)	3.67	1.21	3–6
Martia (Case 3)	6.44	.53	6–7
Mila (Case 4)	5.25	1.28	3–7
Shaunice (Case 5)	3.86	1.41	2–6

visit, after reviewing scores from two observational measures, and at the beginning of the professional development activity as compared to the end of it. In the following sections, we share within-case results and themes before turning to a discussion of cross-case themes.

Perspectives on Effective Practice After Review of Video-Recorded Observation and Individual Data: Home Visitor Case Studies

To address the first research question, how HVs perceive effective home visiting practice after reviewing a video-recorded observation of their home visit, session 2 transcripts were analyzed. The theme, practicing self-reflective consciousness, captured HVs' responses to watching a video of their practice and responding to protocol questions.

To address the second research question, individual PICCOLO scores, individual HOVRS-A+ scores, and individual session transcripts were analyzed. The theme, Practicing Self-Reflective Consciousness, captured HVs' acute awareness of their strengths and challenges as well as the relation of their strengths and challenges in relation to the families.

Karri (Case 1)

Karri's descriptions of effective home visiting emphasized parents' growth in skills by extending their child's learning and following the child's cues. For example, Karri said "and to watch the parent play and take the child's lead was nice to see too." She also expressed her awareness of parent progress across time. She stated "When I started visiting with her [mother of child], she couldn't visit very long, and she would pick up my stuff and send me on my way."

After reviewing PICCOLO scores, Karri stated her strength was individualizing visits and the curriculum. She also thought parental affection was a strength, which was corroborated by PICCOLO scores as parent affection had the highest scores.

Karri experienced disequilibrium after reflecting on her HOVRS-A+ scores. She said "I was lacking in different areas too. All I saw were terrible scores." On the contrary to Karri's narrative, five HOVRS-A+ scores represented "adequate" to slightly below "good", with child engagement during the home visit as her highest score.

Mara (Case 2)

Mara's description of effective home visits emphasized her reflection on areas of improvement. For instance, she said "That's something that I noticed was missing was that informational piece...just to strengthen the value of that visit."

After reviewing PICCOLO scores, Mara stated that creating opportunities for parent-child interaction is an essential component of effective practice. She stated "It [score] is a reminder of how important it is for the parent to be on

the floor with us...I can see there was an opportunity for improvement."

After reviewing HOVRS-A+ scores, Mara determined that knowing how to meet each families' needs and recognizing when a HV needs more training are important aspects of effective home visits.

Martia (Case 3)

Martia's description of effective home visits emphasized that the parent and child were comfortable in the triad. She said:

...and we were having a good time, and the mother was very interactive, and the child was enjoying herself and they were exhibiting all of the skills and they seemed comfortable, and there was an easy flow with what was happening and so it seemed like fun.

After reviewing her PICCOLO scores, Martia emphasized the importance of the characteristics of the parent. Her assertion that affection was natural for the parent while teaching was challenging was supported by the PICCOLO scores.

After reviewing HOVRS-A+ scores, she reflected on how the HOVRS-A+ could help her set goals as a HV. She said "I'm going to shoot for all of these things at the visit. So I think it [HOVRS-A+] could be a powerful tool." Child engagement, indicating the child's interest in the visit, was slightly below "excellent." The highest process quality scale was HV relationship with family. All the other scores were "good" to slightly below good. Martia said, "This measure provides for an interesting reflection for both the home visitor and also the family."

Mila (Case 4)

After watching the video, Mila focused on engaging the parents as important during the visit, particularly facilitation of the parent-child interaction. She said "I know we sit on the floor and we are with the kids...we engage the kids. I think it's more effective."

After reviewing PICCOLO scores, Mila stated that parents practicing skills is effective home visiting. Mila concluded that her use of scaffolding and observing set the stage for the parent to be affectionate with her children.

Viewing the HOVRS-A+ scores helped Mila realize that effective home visiting depends on the level of engagement of both the HV and the family as well as how often families are available for visits. She said, "Then they are stable every week...I see their children are learning more."

Shaunice (Case 5)

After watching the video, Shaunice reflected on relationships and parent–child interactions. She said:

I think you could see the relationship between Mom and baby. She was very affectionate with him and knew the things that were important to him in his learning. And the relationship that I had with her and also with the little guy [baby].

No PICCOLO data were included for Shaunice’s family given that the measure is intended for children 10 months and older.

After reviewing HOVRS-A+ scores, Shaunice emphasized that “it’s still all about relationships.” Her relationship with the family was slightly below “good” and her facilitation of the parent–child interaction was “good.” Shaunice continued to emphasize relationships with the family and parent–child interaction as hallmarks of effective home visiting. She declared that the most critical information from the HOVRS-A+ was the relationship scores and the parent–child interaction scores.

Pre-interviews, Post-interviews, and Changed Perspectives by Case

To answer the third research question, how participants perceived effective practice at the beginning of the intervention compared to the end of it, pre- and post-interview responses were separately analyzed. The theme, building foundations for parent–child interaction, captured valuing parents’ efforts to interact with their child as well as the HV skills that facilitated parent–child interaction. See Table 5 in the Appendix (supplemental file) for this theme’s subthemes and codes.

Karri (Case 1)

In the first session, Karri’s descriptions of effective home visiting mostly emphasized relationships with families as the foundation for effective practice; and meeting families where they are, both psychologically and physically, as important. She expressed “There’s no cookie cutter answers to building relationships with families and meeting them where they are, it is very individualized.”

In the last session, Karri shifted the focus to strategies that promote positive parenting and techniques to engage the parent–child dyad. She cited that she “makes a big deal out of stuff, especially for a low-functioning parent. And then the parent and the child are excited.” To promote positive parenting, she also helps the parent evolve their response of “Oh they’re just playing” to help the parent see that “a lot of development is happening.”

Mara (Case 2)

At the beginning of the professional development activity, two subthemes were apparent in Mara’s data: using a strengths-based approach and implementing the curriculum. These subthemes reflect how effective home visiting means drawing from and capitalizing on families’ strengths during the home visit while implementing the curriculum. Effective home visiting includes respecting parental autonomy including their parenting behavior, taking parents’ perspectives to better provide services to them, and empowering parents to feel successful during home visits. At the end of the professional development activity, Mara expanded her views on effective home visiting to include being intentional about prioritizing families’ needs over strict adherence to the curriculum and continuing to address needs across multiple visits.

Martia (Case 3)

Two subthemes, honoring family’s goals and responsiveness to family’s needs and interests, emerged during the pre-interview with Martia. She defined effective practice as supporting the family’s goals and progress, and promoting that families define their goals and success. Martia thought that “being responsive” to parents’ interests promotes parental engagement in the visit and welcoming everyone in the household to engage in the visit is key. For instance, “I’ll bring a picture frame [activity] for the older sibling, so that they are engaged as well. So that there’s something that everyone gets to do.” Martia suggested that her responsiveness to the family’s needs and interests contributes to an effective visit.

At post-interview, the subtheme of responsiveness to family’s needs and interests fully persisted. Martia also cited that this includes the “child’s interests.” The second subtheme encompasses Martia’s sentiment that her role is a supportive role yet requires a myriad of approaches, including relationship building, observation, and monitoring of the parent–child relationship. Martia stated “Effective home visiting has to be paired with relationships.” She also expressed that she observes the parent–child dyad but also “invites the parent to observe the child.” When asked about the parent–child interaction, she mentioned that monitoring it is important and that this can be accomplished through strategies like redirection. For instance, “If the child sits on the home visitors’ lap for a story, then handing the book to the parent and saying to them, ‘Oh look, I’m sure the child would love to have you read it to her.’”

Mila (Case 4)

At the beginning of the professional developmental activity, two subthemes emerged from Mila's data: supporting parents and structuring activities. As with other cases, individualizing visiting, creating activities to involve parents, and respecting parents are important for effective home visiting. Another important component of home visiting for Mila was how activities are implemented including modeling appropriate behavior for parents and asking open-ended questions to stimulate parents to reflect on their children's progress.

At the end of the professional development activity two subthemes emerged from Mila's data: meeting goals and building relationships with parents. These subthemes highlight how seeing progress and building positive, collaborative relationships are essential for effective home visiting.

Shaunice (Case 5)

At the start of the professional development activity, two subthemes emerged from Shaunice's data: attention to family characteristics, and common strategies to promote parent engagement. These subthemes emphasized that effective home visiting is tailored to each family and the visitor is cognizant of family dynamics that influence the visit. Shaunice stated "The family is looked at as a whole and interactions other than the parent child interaction need to be considered." She also cited that "the mom moved back in with her mom and the dynamic changed." Effective home visits also include a variety of strategies such as providing child development information to families and asking parents open-ended questions.

At the end of the professional development activity, Shaunice maintained her emphasis on relationships. She indicated that her relationship with parents strengthens parenting. She cited that "I have to be open to having a relationship with the family...and finding common ground helps form a relationship." She also suggested that HVs can set the stage to empower parents to strengthen the parent-child relationship.

She also expanded on her views to express that effective home visiting includes considering the home visiting curriculum in context. Shaunice stated: "Sometimes I'll continue with the activity and sometimes I'll just go into other stuff...because sometimes they need to get whatever they need to say off their chest."

Discussion

This study examined how a sample of home visitors described effective home visiting practice in the context of a professional development activity. Qualitative data analysis revealed two major cross-case themes about effective home

visiting practice: Practicing Self-Reflective Consciousness and Building Foundations for Parent-Child Interactions.

The theme Practicing Self-Reflective Consciousness emerged from Sessions 2 and 3 with each HV and captured their reflective cognizance of the curriculum and their practice. Csikszentmihalyi (2006) discusses self-reflective consciousness as the foundation for awareness of individuality and says it helps humans create plans and critically analyze actions. Through self-reflective consciousness, the HVs were aware of growth in families' skills, recognized areas of improvement in practice, experienced dissonance considering scores, and individualized visits and the curriculum. For example, Martia stated: "You know if you get there at naptime...or somebody's hungry, or tired, you really have to follow the flow of the family on the visit." Mila said:

Let's say our PAT curriculum says 'Let's talk about oral health today' but let's say it's the fall season and the family wants to do a baking activity, it becomes can I find a way to talk about oral health or nutrition while we do the baking activity.

HVs were conscious of their practice and curriculum but also their need to make reactive adaptations on a weekly basis to meet the diverse needs of families. While this case study is localized to one EHS-HBO program employing PAT, it gives insight to the tension between awareness of model fidelity and the need to individualize and adapt to meet the needs and strengths of families.

HVs were prompted to reflect on video segments of their practice, which is important to promoting practices (Dunst & Trivette, 2009). The video segments increased professionals' awareness of how they interacted with families and provided opportunities to think about their practices (Rich & Hanafin, 2009; Whitehead & Fitzgerald, 2007). HVs examined the differences between their perspectives on their skills and how they actually implemented services to families (Bryan & Recesso, 2006). This was most evident among the HVs who felt that the videos did not accurately reflect their skills as HVs. This applied to the analysis of data as well. For instance, Karri's (Case 1) analysis and reflection of HOVRS-A+ scores in Session 3 showed an experience of dissonance; she thought her scores were "horrible" although five ranged from "adequate" to slightly below "good."

While the videos may not have captured HVs' optimal practices, they provided the best opportunities for professional growth and development as they were tangible evidence for areas of improvement, particularly when working with challenging families. By practicing self-reflexivity, HVs can potentially think critically about how to bridge the gap between their competencies and applied practice with families.

The present framework of reflecting, viewing, analyzing, and reflecting promoted HVs' overall reflection, which perhaps undergirds all other HV competencies. Video can play an important role in home visiting professional development activities and enhance reflection. The early childhood home visiting field may want to examine lessons learned from the use of video in supporting teachers (Rich & Hannafin, 2009; Seidel et al., 2011) to consider how video can effectively support HVs.

The second cross-case theme, Building Foundations for Parent–Child Interactions, captured how HVs take pride in parents' efforts to work with and attend to their child. Overall, HVs in this sample valued relationships with families and a variety of strategies, such as asking parents open-ended questions, observing the parent–child dyad, monitoring it, using redirection when needed, and using a strengths-based approach. They also had “adequate” to “good” HOVRS-A+ overall scores on the HV facilitation of parent–child interaction scores. This theme also highlights triadic interactions, which promote effective home visiting (Peterson et al., 2018), including a variety of HVs' strategies that are essential to promoting parent–child interactions. While HVs noted a variety of strategies to promote parent–child interactions, optimal techniques, such as coaching parents were not noted. Coaching is noted in the field as one of the most effective ways to work with families and as a desirable HV competency (IAFSP, 2018). Direct teaching, redirection, modeling, open-ended questions, and observing were frequently used strategies of the HV during triadic interactions. These results are consistent with the Peterson et al. (2018) study showing HV activity during triadic interactions consisted primarily of observing and modeling. HVs reported that they could teach appropriate parent–child interactions while helping parents to identify in real-time how activities such as play are conducive to child learning. This didactic approach allows HVs to engage families in the teaching and learning process because of the triadic nature of the interactions, which might set the stage to advance from recognizing and applying to extending or effective coaching practices (IAFSP, 2018).

The within-case analysis demonstrated a variety of sub-themes and codes. Ultimately, this suggests a plethora of complex skills that are needed by HVs to demonstrate effective practice.

For instance, Shaunice (Case 5) emphasized building relationships with families as important to effective practice in Sessions 2, 3, and 4, suggesting continuity in her thoughts and potentially her practice. Shaunice thought that one of the most critical pieces of information in the HOVRS-A+ was the “home visitor-family relationship,” and her scores of slightly below “good” corroborated this commitment. The highest summary HOVRS-A+ score for this sample was “home visitor-family relationship” suggesting

that the warmth of the HV, parent comfort with the HV, positive interaction with the HV, child, and family, as well as the HV respect and understanding of the family is happening on these home visits (Roggman et al., 2012).

Implications

Implications for the current study include a need to provide guided, consistent, ongoing reflective support to HVs in their practice. Home visitors in this study engaged with the reflective experiences by examining the relationships between their perceptions of practice and their actual behaviors during home visits. At times, HVs reported consistency between perceptions and behaviors and at other times, they felt the observed segment was not reflective of their practice. As HVs have more opportunities to reflect on video observations with each of their families two things will likely happen. First, the amount of data gathered (video observations) will increase the validity of the observations, creating a more accurate picture of their practices. Second, HVs' reflective skills will likely improve and thus increase their awareness of both strengths and weaknesses of their practice. In addition to these changes, observations will help HVs better assess the individual needs of families they serve. By examining the variation in family responses to their practices, they can develop a variety of tools to increase effectiveness. In this way, HVs will be less rigid in their implementation of curriculum and more responsive and dynamic while potentially maintaining model fidelity.

While this type of reflective experience can be resource intensive, agencies should consider these types of opportunities as foundational to professional development. The use of video, the HOVRS A+ and the PICCOLO created a data-driven reflective opportunity for HVs.

Coaching

An additional implication for practice is that HVs need to both assess and facilitate parent–child interactions during visits. While HV scores on the HOVRS A+ were generally considered “adequate” to “good” in this area, very few segments included actual coaching of the parent–child interactions. Some HVs noted that parent–child interactions and relationships are critical to home visiting effectiveness. They also identified the facilitation of these interactions as an area for growth, which is corroborated by other studies (Peterson et al., 2018; Roggman et al., 2016).

Coaching within home visiting is a parallel process that is emerging. While recommended practices for working with families include active coaching of parent–child interactions (Kemp & Turnbull, 2014; Rush et al., 2003), active coaching of HVs in their interactions with families is needed. The current study provides support for video-based coaching as one

tool to improve HV awareness of and interest in improving their practice. Further research is needed to determine the relationships between this professional development experience and the quality of home visits received by families.

Limitations

Some limitations to generalizability of the current study should be noted. All participants identified as female; however, this is representative of the female-dominated home visiting field. Most of the participants reported 10+ years of experience in the home visiting field and the findings may not generalize to HVs with less experience. One researcher implemented the professional development activity, and this is a limitation given that the characteristics of this researcher may not generalize to coaches and supervisors who implement professional development activities with HVs. Participants may have wanted to provide reflections that were socially desirable. In addition, HVs in the present study were all employed by EHS-HBO, which was designated as a PAT affiliate, and the findings may not generalize to other models.

Despite the current study's limitations, the process of reflecting, observing videos, analysis and further reflection has promise for providing HVs the needed professional development to learn, maintain, and expand skills (Sandstrom et al., 2020). The use of HOVRS-A+ and PICCOLO as tools for reflection may also move the home visiting field toward a data-driven profession, increasing the impact of services for families.

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