

Caregiver and Provider Experiences With Coaching and Embedded Intervention

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Christine Salisbury, PhD¹, Juliann Woods, PhD²,
Patricia Snyder, PhD³, Kierstin Modellmog, MEd¹,
Helena Mawdsley, PhD³, Mollie Romano, PhD²,
and Kelly Windsor, PhD²

Abstract

Despite an emphasis in the field on triadic approaches to the delivery of early intervention (EI), remarkably little is known about the shared experiences of caregivers (CGs) and providers during home visits. Within the context of developing, refining, and evaluating the *Embedded Practices and Intervention With Caregivers* (EPIC) approach, two studies were undertaken with 11 EI providers and 19 CGs of infants/toddlers with moderate–severe delays/disabilities to gather their perspectives about and experiences with the EPIC approach. The EPIC intervention has two components: CG coaching and a five-question (5Q) process for supporting embedded practices. Interview, focus group, and rating scale data were collected in both studies and aggregated for reporting purposes in the present article. Findings are described with regard to the coaching and 5Q components and the extent to which participants found the intervention to be feasible, acceptable, and useful. Implications for future research and professional development on coaching and embedded intervention practices are discussed.

Keywords

early intervention, caregiver coaching, embedded intervention, severe disabilities

In high-quality early intervention (EI) practice, providers support primary caregivers (CGs) as they learn how to provide embedded learning opportunities for their child in the context of everyday activities and routines in ways that build the capacity of CGs to enhance their child's learning and development (Division for Early Childhood, 2014). Recently, these family capacity-building strategies have been applied to the development of a CG coaching approach and embedded intervention framework that helps CGs learn what to teach; why the specific skill is important to teach; how to support and teach their child within the context of everyday activities and routines; how to use generalize support and teaching strategies across time, contexts, and people; and how to evaluate the effects of their efforts. Referred to as the *Embedded Practices and Intervention With Caregivers* (EPIC) approach, the CG coaching and embedded intervention components of EPIC represent a complementary integration of systematic and intentional instruction for both the provider and CG.

Embedded instruction is an evidence-based approach that involves providing intentional and systematic instruction on children's priority learning targets during everyday activities and routines (Snyder, Rakap, et al., 2015). The

potential impact of embedded intervention is dependent to a large extent on the competence of the EI provider to teach CGs how to identify naturally occurring learning opportunities and embed instruction. Despite advances in defining and characterizing CG coaching practices (Brown & Woods, 2015; Friedman, Woods, & Salisbury, 2012), remarkably little research has emerged that identifies how to build the capacity of providers to teach CGs of infants and toddlers how to embed instruction within the context of families' everyday activities and routines. The research literature is also limited with regard to which specific coaching practices should be leveraged to build the capacity of CGs so that they can more consistently and competently enhance their child's learning (Brown & Woods, 2015; Kemp & Turnbull, 2014). Although there is a growing body

¹The University of Illinois at Chicago, USA

²Florida State University, Tallahassee, USA

³University of Florida, Gainesville, USA

Corresponding Author:

Christine Salisbury, The University of Illinois at Chicago, MC 628,
1640 W. Roosevelt Road, Room 336, Chicago, IL 60608, USA.
Email: csalis1@uic.edu

of research focused on EI providers as coaches (e.g., Campbell & Sawyer, 2009; Kemp & Turnbull, 2014), there is also general agreement that CG coaching can be challenging (Campbell & Sawyer, 2009; Salisbury, Woods, & Copeland, 2010). Due to space limitations, readers are referred to these sources for further exploration of challenges related to CG coaching. Studies in EI designed to understand the coaching process as experienced by those directly engaged in it are rare. Even rarer are studies designed to understand the coaching process when a specific set of practices, such as those associated with embedded intervention, are the focus of CG coaching in EI.

To date, studies have focused on either the provider or CG in coaching-based programs. In a study of six providers' adoption and use of a CG focused coaching approach to EI with urban families, Salisbury et al. (2010) found that EI providers' concerns shifted from how a coaching-based approach might impact disciplinary practice to about how collaboration with teammates and the children and CGs with whom they worked might be affected. Successes with families using a coaching approach were attributed to professional development (PD), teaming, reflective practice, and experience in using the CG coaching practices with a variety of families. Salisbury and Copeland (2013) examined CG perspectives of both child and CG outcomes in a diverse sample of 21 families whose infants/toddlers evidenced severe disabilities. Analysis of the rating scale data revealed that CGs reported slightly greater self-efficacy when they received routines-based coaching at home compared with CGs who received similar coaching in a center-based program.

Although other studies have gathered information from CGs who were being coached by a teacher or therapist, those investigations were principally focused on CGs' views of child progress related to a specific intervention (e.g., Ronski et al., 2011), the fidelity with which CGs implemented an intervention (e.g., Kaiser & Roberts, 2013), or changes in CG-child interactions during specific curricular activities such as shared book reading (e.g., Landry et al., 2012). No studies were located that examined the perspectives or experiences of *both* CGs and providers involved in the *same* EI sessions, nor were studies found in the EI research literature that focused on a specific set of practices like embedded intervention. This gap is striking in light of the role that both CGs and providers play in triadic home visiting intervention sessions. Understanding the experiences of providers and CGs is essential to the development of effective coaching and embedded intervention practices, and, as such, served as the focus of this investigation.

EPIC Intervention as Context

As part of the evaluation of a home-based approach to embedded intervention, we sought to understand how both providers and CGs experienced the EPIC approach, and how they evaluated its feasibility, acceptability, and utility.

This project was funded to develop, refine, and evaluate an intervention that CGs could use to enhance the communication and motor skills of their infants/toddlers with moderate-severe delays or disabilities within the context of everyday activities and routines. The focus of EPIC is on building the capacity of *both* the provider and CG so that each works in synchrony within home visits to support child learning. EPIC was conceptualized as a two-component intervention approach that integrates evidence-based practices from embedded intervention, PD, practice-based coaching (Snyder, Hemmeter, & Fox, 2015), and CG coaching (Woods, Wilcox, Friedman, & Murch, 2011).

Coaching Process

The EPIC approach includes job-embedded PD and coaching for EI providers (e.g., explicit identification and video illustration of EPIC principles and practices, opportunities to review and reflect on video, feedback on their home visits, problem solving and reflection on implementation, home visit fidelity checklist) to enhance their competence to coach CGs to capitalize on embedded learning opportunities during the child's and family's naturally occurring activities or routines. A clearly defined process for coaching CGs during home visits combined with use of operationally defined coaching practices form a protocol that providers used to coach the CG to guide the child's learning (Salisbury et al., 2010; Woods et al., 2011). The coaching process in the EPIC approach involves five sets of practices that map to a general, yet flexible, interaction between the CG and provider: setting the stage (SS), observation (OBS), providing opportunities to embed (O), problem solving (P), reflection (R), and review (R) (SOOPR). Within opportunities to embed, the provider supports CG to embed learning opportunities into everyday activities and routines using specific coaching practices such as demonstration with narration, feedback, or guided and CG practice. Providers involved in the EPIC project independently completed a set of web-based PD activities that involved completion of content and process modules, video examples of coaching components, scoring of practice videos to identify coaching practices, and completion of quizzes. These activities were sequential in nature, took approximately 10 hr per provider, and all achieved at least a score of 80% on PD assessments prior to beginning EPIC intervention services with families.

Five-Question (5Q) Framework

The second component of EPIC is a 5Q framework that focuses the CG's attention on the rationale for teaching a skill (WHY); what the skill is (WHAT); what they need to know and do to promote child learning in everyday activities or routines (HOW); how to implement the HOWs in other routines/contexts, with other individuals (WHO/WHERE/WHEN); and a means by which they can gauge

whether their efforts are working for them and for their child (HOW DO I KNOW IT'S WORKING?). This framework was taught to CGs by providers using specific coaching practices with the goal of enhancing the CG's capacity to embed instruction on child learning targets in everyday activities and routines. A visual model (VM) representing the 5Q framework was developed as a guide for CGs to use in the absence of their provider. The VM is a simple paper or digital graphic with space to answer each of the 5Qs. Brief responses to each question are written by either the family or provider using the family's words to describe the key points of the child's plan (e.g., what skills, which routines, when and where, which strategies the CG would use, and how they would know it is working). The intent of the VM is to support the family's understanding and application of the 5Q framework for embedding instruction by reflecting on and reviewing the content.

EPIC Home Visiting Process

Providers used the SOOPR coaching process on each home visit to instruct CGs on the use of the 5Q framework. All home visits were videotaped. These videotapes were used by EPIC staff to monitor and coach providers on their fidelity of implementation of SOOPR and CG implementation of 5Q. A unique feature of the EPIC approach is the frequency with which home visit sessions occurred. In light of research and discourse that questions the intensity and effects (dosage) of EI interventions (cf. Warren, Fey, & Yoder, 2007), we increased the initial frequency of home visits (i.e., intensity) and referred to this accelerated dosing of the EPIC 5Q intervention as "front loading" home visit sessions. Front loading involved having providers conduct three home visits in the first week, two in each of the following 2 weeks, and 1 time per week thereafter as the CG demonstrated increasing competence with the 5Q embedded instruction process.

The EPIC intervention development studies served as the context for data collection and the qualitative investigation reported below. In the present study, we were guided by two intersecting questions:

Research Question 1: How did CGs and providers experience EPIC's 5Q and coaching processes?

Research Question 2: How did CGs and providers view the feasibility, acceptability, and utility of the EPIC approach?

Method

Design

This study represents a blend of descriptive phenomenological (Creswell, 2006) and collective case study (Brantlinger, Jimenez, Klingner, Pugach, & Richardson, 2005) approaches

through which we explored the experiences and perceptions of CG and providers who were involved in the 5Q and coaching processes of the EPIC intervention project. Creswell (2006) suggested that the phenomenological tradition is appropriate when one wishes to understand several individuals' common or shared experiences of a phenomenon (i.e., the EPIC intervention processes of 5Q and coaching). Similarly, Brantlinger et al. (2005) described the collective case study as appropriate for understanding how individuals with shared characteristics (in this case a role as EI coach or CG of a child in EI) might experience the same phenomenon. Together, these approaches provided the foundation for examining how EPIC was experienced and interpreted by our CG and provider participants.

Two studies, involving 19 CG-provider-child triads, were undertaken by the EPIC project in three sites (two in Florida, one in Illinois) over the course of 2 years to examine the feasibility, utility, and acceptability of the EPIC intervention. A small-scale TryOut study in Year 1 with seven families (two in each of the Florida sites, three in the Illinois site) tested the initial feasibility of CG coaching and the 5Q intervention over a 4-week period. That study was followed in Year 2 by three single-case design (SCD) studies (one at each site) with replication across four CG-child dyads and routines ($n = 12$). The SCD participants were different from those who participated in the TryOut study. Intervention sessions in the SCD study spanned 8 to 12 weeks. Semistructured interview, focus group, and rating scale data were collected in both studies using the same (or a slightly revised) version of project protocols. For this reason, data from both the TryOut and SCD studies were aggregated for reporting purposes.

Participants

Informed consent was obtained for all participants by project personnel in the Florida and Illinois research sites. Participating EI providers across both studies were 11 females (10 Caucasian and one Hispanic) who had at least 2 years of coaching experience in EI, were eligible for or were currently working in EI in their respective state, and held a master's or doctoral degree in early childhood special education, speech-language pathology, or physical therapy. Prior to recruitment, none had been involved in the EPIC approach. Their average length of experience in EI was 13.7 years (range = 3–40 years), and six of the providers were Part C agency-based, three were university-based employees, and two were independent providers. These providers served as coaches to the CGs during the TryOut and SCD studies. Their role was to teach the CGs how to embed priority learning targets within everyday activities and routines.

The 19 CGs in this sample came from economically, culturally/linguistically, and ethnically diverse households. All were the mothers of the infants/toddlers with moderate-severe disabilities/delays who were receiving Part C

services. These CGs represented Caucasian ($n = 9$), Biracial ($n = 3$), Hispanic ($n = 5$), Asian ($n = 1$), and American Indian ($n = 1$) ethnic groups. All CGs were married with varying levels of education, including General Education Diploma (GED)/high school diploma ($n = 3$), some college ($n = 6$), a college degree ($n = 9$), and one declined this information. Each family had at least one parent working full-time and reported annual household income to be below \$40,000 ($n = 5$), \$40,000 to \$60,000 ($n = 4$), or over \$60,000 ($n = 7$). Three families declined to provide income information and five reported receiving food stamps or Women, Infants, and Children (WIC) support. Two families lived at or below the federal poverty threshold. Families in this sample resided in urban, suburban, and rural areas in Florida and Illinois.

Data Sources

Protocols and rating scales were used to structure the collection of consistent data across both studies. These structural features minimized bias in the data collection process (reflexivity) and led to a deductive approach to data analysis.

Interviews. TryOut study providers ($n = 7$) and CGs ($n = 7$), and SCD providers ($n = 4$) and CGs ($n = 12$), participated in individual or group semistructured interviews at the conclusion of their respective study. The interview protocol contained 14 questions that explored experiences with and views of the 5Q and coaching processes, what changed for them over time, and how their experiences with EPIC compared with their concurrent or prior EI services. These questions provided insights not only about how EPIC was experienced but also their perceptions of the intervention's feasibility, acceptability, and utility. CGs in both studies were interviewed by doctoral-level students who were trained to use the interview protocol by their respective site principal investigators (PIs). The PIs at each site conducted interviews with providers following the TryOut and SCD studies. Each interview lasted approximately 45 min, was audio-taped, and transcribed verbatim. A total of 235 transcribed pages were coded and analyzed.

Caregiver feedback survey (CFS). An adaptation of the *Intervention Rating Profile-15* (IRP-15; Witt & Elliott, 1985) was used to elicit information from CGs about the acceptability and utility of the EPIC approach. Our adapted version of the IRP-15, identified as the CFS, reduced the number of items to 10 to more appropriately match the types of information we needed for evaluating the EPIC approach. This rating scale included four Likert-type items that assessed how useful (very, somewhat, not very, not at all) EPIC features were in four areas: (a) everyday routines/activities as the context for intervention, (b) the SOOPR coaching process with their child's EPIC provider/coach,

(c) the 5Q framework and VM, and (d) EPIC's front-loaded home visiting sequence. In addition, two items assessed the extent to which CGs used the HOW strategies outside of the scheduled home visits (never, sometimes, daily, multiple times per day). Two final items assessed the relative value of the approach (a great deal, somewhat, not much, not at all) in building their confidence and competence to support their child's learning. Likert rating anchors were assigned a score of 4 (*most positive*) to 1 (*least favorable rating*), summed, and averaged across respondents to create an aggregate mean for the scale (range = 3.14–3.93). A total of 14 CGs across both studies completed the rating scale.

Focus groups. A sample of providers ($n = 11$) and CGs ($n = 9$) who had participated in either the TryOut and SCD studies, as well as EI agency or PD personnel in each state, participated in one focus group each year in Florida or Illinois. Focus groups were used to elicit feedback about participants' experiences with the EPIC approach and to discuss broader intervention development and implementation issues. A structured protocol was used to guide participants through a series of topics related to the key features of the EPIC intervention (e.g., front loading, 5Q, coaching, website modules) during these sessions. Feedback from the Year 1 and 2 focus groups was used to make revisions in the website, VM, PD materials, and home visiting procedures as part of the iterative EPIC intervention development process. Video, in situ typed and written notes, and audio recordings were used to capture the responses from participants.

Data Analysis and Verification Procedures

Qualitative analyses. Analyses proceeded in a sequential and iterative manner. Transcripts of the individual interviews and two provider focus groups were transcribed verbatim into separate word-processing documents that were combined for analyses. The first author used NVivo 11 Pro (2014) to code text segments from the transcripts into preliminary thematic nodes associated with each interview question. The coding schema therefore represented an emic approach to analysis with group membership and interview questions as the coding structure (e.g., CG experiences/views of 5Q and coaching, provider experiences/views of coaching and 5Q). The text segments in these nodes reflected CG or provider reports of experiences and their perceptions of key features and processes of the EPIC approach. The content of each node was continuously revised until saturation was achieved as successive transcripts were analyzed. Tables of CG and provider themes and subthemes, along with supporting narrative text segments, were then created and analyzed by three of the authors to establish agreement regarding initial interpretations of the data. Where outlier views/experiences were

noted (primarily in the CG data), additional readings of the transcript and interpretation ensued. These views were most often associated with unrealized expectations and dissatisfaction with the provider–CG relationship. Quotes from these events have been included in the “Results” section. Discussion of preliminary findings among the investigators produced some revisions, consensus, and an organizing structure for describing themes and findings.

Trustworthiness. Veracity of the data was established by incorporating procedures to address credibility, transferability, and dependability (Corbin & Strauss, 2008). We used triangulation and member check to address credibility. We triangulated the data by using multiple means and individuals in the data interpretation process and by using different data collection methods (interview, rating scale, focus group). In addition, member check was used to establish the credibility of our interpretations and findings with 26% of the CG participants and 55% of the provider participants from the Try-Out and SCD studies. Project staff met individually with these CGs and providers and shared a summary table of transcript themes, our preliminary interpretations, and representative quotes. During these member check meetings, participants were asked to test whether our interpretations were recognizable as that which they had experienced. Site staff recorded changes to our interpretations on the summary tables and added additional quotes offered by participants. For the most part, CGs agreed with our interpretations. However, where disagreements were noted, some CG comments represented the minority view of the theme and were at odds with the views of most other CGs in our sample. In other cases, CGs expanded our interpretive statements to clarify their own experiences. Providers affirmed the preponderance of our interpretations and only occasionally offered clarifying comments. The clarifications and additional quotes from both groups were incorporated into the final version of this report. Finally, transferability was enhanced by including participants who represented the racial, economic, and geographic diversity of our original sample.

Results

CG and Provider Views of Coaching

CGs. Overall, CGs rated EPIC as a positive and useful experience on the CFS (see Table 1), indicating that it was both feasible and functional for their family. CGs spoke often and specifically about the value of being coached within existing daily activities and routines. Given the number of therapies most of these children received, what appealed to these CGs was the way in which EPIC home visits “fit the flow of the family.” This finding is consistent with the CFS data where CGs rated having the approach grounded in everyday routines highest among all items (see Table 1).

CGs experienced each of the five SOOPR coaching practices during home visits, and all of these practices were mentioned in their interviews. Observation (OBS) was mentioned most often. CGs felt that having the provider observe, then coach, was a powerful influence on their own learning—“It was really useful having somebody actually observe it while you’re doing it and coaching you through making changes.” Many CGs also commented positively and specifically about the Reflection/Review practice in the SOOPR coaching process. These coaching practices gave providers and CGs an opportunity to discuss what worked, what did not, why, and how to proceed forward based on that discussion. CGs noted that Reflection/Review afforded them “a bird’s eye view of what the child was really saying with his behavior,” a space to think and talk about the “why” and “how,” and a road map for what to do between home visits (“if we didn’t have that plan [Review], we probably would have just reverted back to what we did prior to our EPIC visits”). For some, Review served as a motivator to put into practice new knowledge and skills learned from their coach (“I think those after-talks [Review], they really help because it keeps me more motivated to be like ‘okay, next time we’re going to do that more’ and that for me is really helpful”).

In addition, specific feedback received during embedded intervention was highlighted by CGs as instrumental in helping them develop an understanding of what to do, how to do it, and what to change to enhance the effectiveness of their support to their child. Typical of many, as one parent worked to help her child acquire a communication skill, she commented that “she [provider] would tell me you’re doing it great, but let’s add a little bit. Say something more about what you’re talking about.” The combination of demonstration, practice, and feedback from providers was viewed by CGs as the means by which they developed a deeper understanding of how to become more effective in supporting their child’s learning—“She would show me and work with me and explain to me why I was doing it, how I could do it better, was definitely good.” Across the interview transcripts, we also saw CGs develop a clearer understanding of the link between coaching and their own actions. Often referred to as their “ah ha” moment, many commented on the realization that “seeing what the provider was doing with me is what I was supposed to do with my child!” The following quote illustrates this same revelation by another mom:

If you go back and look at it, she taught me the way that I would be teaching him. She did prompting for me, she did waiting for me, she did environmental arrangement for me, she did response for me. So she modeled the behavior for me to do with E.

These types of connections were critical in building capacity and fostering generalized use of the 5Q framework that they were being coached to use. CGs gave strong ratings on

Table 1. Responses to Caregiver Rating Scale by Caregivers^a From Three EPIC Sites.

Category/item	Item anchors, <i>M</i> (<i>SD</i>)
	<i>Very–somewhat–not very–not at all</i>
Everyday routines and activities	
1. How useful is the approach?	3.93 (0.27)
Coaching	
2. How useful did you find the coaching process? 5Qs	3.79 (0.58)
3. How useful were the 5Qs in learning the steps for how to embed learning?	3.64 (0.84)
4. How useful was 5Q visual model in actually teaching your child motor and communication skills between home visits?	3.14 (1.03)
EPIC approach	
5. To what extent did you find “front-loading” process useful in first learning how to work with your child?	3.50 (0.85)
6. To what extent was the flow of the HV useful in helping you identify/use naturally occurring learning opportunities as teachable moments with your child?	3.79 (0.58)
Using intervention strategies	<i>Never–sometimes–everyday–multiple times/day</i>
7. Outside of EPIC HVs, how often did you use intervention strategies in the routines you identified and practiced with your EPIC provider?	3.64 (0.63)
8. How often did you use intervention strategies in other routines or activities with your child?	3.21 (0.80)
Self-efficacy	<i>Great deal–somewhat–not–not at all</i>
9. To what extent do you think the EPIC approach helped you take a more active role in your child’s learning?	3.86 (0.36)
10. To what extent do you agree with the following statement? “Now that I know how to use 5Q, I feel more confident and able to teach my child essential skills.”	3.71 (0.61)
Total score	3.62 (0.26)

Note. EPIC = *Embedded Practices and Intervention With Caregivers*; HV = home visit; 5Qs = five questions.

^aN = 14 respondents for each item.

the CFS in support of the utility of the EPIC coaching process (see Table 1).

CGs viewed the SOOPR coaching process as “systematic and tangible, not all verbal like with other therapists.” These CGs expressed that the EPIC home visits unfolded in an ordered sequence that was both predictable, yet flexible enough to adapt for inevitable interruptions that can occur with young children, particularly in the context of home visits. Because coaching involved a blend of information sharing, demonstration, feedback, and practice, CGs often referred to home visits as having “a focus and substance,” and repeatedly stated their appreciation for having CGs be the focus, “not just my child!”

Providers. Providers shared many of the same views as CGs about coaching as a capacity-building process, but expressed them in different ways. Consistent with the views of CGs

regarding coaching as a generative “system,” each of the providers felt that SOOPR offered a “framework” for developing CG knowledge and skills so that they could more effectively support their child’s learning. The value, as expressed by one provider, but shared by several, was in the elements of the SOOPR process and the flexibility with which it could be implemented:

Therapists need to understand it is only an outline and not a recipe to follow without detour. Reflection can happen at any point along the line, as can explanation of the importance of a skill or activity that may be more meaningful [discussed] in the middle of an activity.

Providers also spoke about changes in their own use of SOOPR coaching practices that occurred as CGs developed greater independence in using embedded intervention in everyday activities and routines. One provider stated, “you

can see caregivers gain confidence and competence via changes or shifts [reductions] in our use of observation, caregiver practice with feedback, and guided practice with feedback,” while another noted, “you could really feel a shift from using a lot of guided practice and a lot of direct teaching early on, to kind of phasing back to more caregiver practice, see more observing, more giving pieces of feedback.” For several providers, the shift was tangible—“you can feel yourself pulling back and turning control over . . . you can see caregivers as ‘more powerful.’” In thinking specifically about the Reflection practice within SOOPR, another provider commented,

Letting the parent problem solve, letting her reflect on what was right about it [what she was doing with the child] and what was wrong, rather than me just saying “Oh that was good,” forced me to sit back and give the parents more independence.

Our interpretation of both CG and provider views about shifts in coaching practices is that building capacity in CGs is inextricably linked to the enhanced capacity of providers to be attuned to where the CG is in the learning process, and providers’ understanding of how fading supports can enhance CG confidence as they assume a more active role in home visits and their child’s learning. The following quote from a provider helps describe the shift from provider-directed to CG-led engagement:

I was becoming very conscious about even who the child was looking at . . . trying to move her around so she’s facing mom or dad, . . . putting that extra effort to be very much focused on the parent-child . . . I’ve done more of “well watch me and then hand it over in the past.” This time it was just “here’s some strategies. As you’re doing it, think about or try this.”

Despite many positive experiences, providers also felt challenged by aspects of the home visiting and coaching processes used in EPIC. One challenge involved the changing expectations about the role of CGs in the home visit that, though hard, was necessary for building the capacity of CGs to take the lead:

I felt that each caregiver was used to providers coming to their homes with a set agenda which sometimes left them confused when I asked them what they wanted to work on, or what they wanted to do with the time during the home visit.

Several providers involved with English language learners found that limited English proficiency made it difficult for CGs to narrate what they were doing and consequently for providers to know how to frame reflective questions or problem solve implementation issues.

Two coaching practices that were valued most highly by CGs were two that several providers cited as challenging to integrate in their practice—Observation and Reflection.

Most providers noted that the rationale for observing CGs needed to be explained first so that CGs understood its relevance for supporting CG–child interactions. For others, using the SOOPR coaching process helped address some of their implementation concerns:

I wasn’t always comfortable with observation because some parents expect to be told what to do. It’s nice to have the SOOPR framework and be able to tell the parents why—so that they understand [why] observation and reflection are important.

Reflection was hard, in part, because providers needed to formulate questions that elicited reflective comments by the CGs about what occurred, how they felt the session went, and what might need to change going forward (“I think it’s a challenge to get families talking about these things without the provider being directive” and “I had a hard time not just knowing how much they needed to say, but how to really pull it out of them”).

Providers used a protocol to remind them of the 5Q components and the SOOPR practices they could draw on for coaching CGs. While the protocol was valued by many providers as a means of providing focus and structure for the home visit session, specific coaching practices were experienced differently. For example, some providers felt that Setting the Stage and Observation practices prompted them to listen, “step back, and understand what the caregiver absorbed during the last visit before you jump in to teach/coach.” Other providers felt that Problem Solving and Reflection afforded discussion time “for brainstorming and building a trusting relationship,” and that there was value in taking time for reflection on what went well and what did not during the home visit. However, this view of Reflection was not universally shared with one provider commenting, “To be honest, I didn’t think Review/Reflection was as important as other practices.”

CG and Provider Views of 5Q

CGs. CGs were unanimous in their endorsement of 5Q as essential for learning how to embed instruction and teach their child meaningful skills. They were also consistent in their view that the 5Q framework was both useful and feasible, and felt that it fit well within their existing routines and activities. They felt strongly that the 5Q framework gave them a way to embed learning opportunities within everyday routines that was “simple to remember and good at breaking down the specifics.” Several noted that the 5Q framework gave them “a road map” that helped them learn “what to expect, what I was supposed to do, and what we were going to do” within and outside of each home visit.

Four evidence-based HOW strategies were demonstrated to and practiced with CGs—wait time, environmental arrangement, contingent responding, and prompting. CGs

differed in their mastery of these strategies, the ease with which they were learned (“HOW was much more difficult for me than any of the other ones because I actually had to stop and think”), and their understanding of connections among the HOW strategies, the learning target, and child change (“in terms of how I am getting there and specifically distinguishing between the target, the strategy, and the how—no clue what the three distinctions are between those”). Despite the learning curve, many CGs commented on how they learned to slow down, watch, wait, and how and when to model and prompt their child so he or she learned priority communication or motor skills. One CG was specific about how she connected the WHAT and HOW to support her child’s learning:

I always ask myself—how can I teach her something new . . . Before EPIC, I would give her bottle when it was time to eat. But now, I’m asking her and waiting for her to vocalize or make a gesture to show me that she wants to eat.

WHO/WHERE/WHEN questions were often mentioned as valuable by CGs in helping them understand the portability of the 5Q framework—one they could use to embed instruction “anywhere, anytime, with anyone.” Whether with other family members (“we’ve been teaching the grandparents—coaching them on what to do”), in other contexts (“at the Laundromat—I have him push the basket”), or other routines (“like bath time—we’ve expanded . . . adding little toys or music . . . car rides we add different things so it expands outside of just what we are doing [normally]),” many CGs commented on instances of generalization that underscored their perception that 5Q was a functional process within and outside the home. CGs also expressed growing confidence in their abilities to support their child’s learning (“You know doing this [5Q] kind of made me look for ways throughout the day and other things we do to use those same things”; “I feel more effective. Now I know how to help K. do things”).

CGs shared that the conversations around WHY the learning target was important and how it connected to longer term goals tended to be confusing and less helpful compared with the more concrete questions related to WHAT, HOW, and WHERE to teach their child.

What was it, the reason WHY we are doing it? I would end up skipping some part of the graph like that. Like I would mainly stick with “ok this is what we are doing, this is how we are doing it and this is what our target is for doing it.”

Similarly, some CGs felt that the HOW DO I KNOW IT’S WORKING question was self-evident. These CGs tended to look at child change in binary terms (“It’s working if he walks”), while others described witnessing incremental improvement in their child’s learning (“for walking, it’s like

before I would see he would struggle so I would right away give him all the help. Now it’s like I rarely help him [because he has learned to take little steps]”).

CGs also described differences between EPIC’s explicit 5Q framework for embedding instruction and the way in which current or prior EI services were provided to their child and family. They spoke about the fact that in traditionally delivered EI services, providers were not intentional about meaningfully including them in sessions and did not use practices that built their understanding or capacity to teach their child—“at the end they leave, you know and you’re there and it’s like what do you do next?” Across CG participants, there was a consistent view that the EPIC intervention was both useful and feasible. The CFS data corroborated the positive commentary from CGs about the approach and indicated CGs saw their active role in home visits as a highly positive feature of EPIC’s approach (see Table 1). CGs’ responses suggest that EPIC’s emphasis on building CG capacity, its intentional focus on creating active opportunities to learn and use new knowledge and skills, and the incorporation of reflection throughout the process were instrumental for them in learning how to confidently and effectively support their child’s learning.

Although valued and used by many, not all CGs felt the VM matched their learning style or that it needed to be used as frequently as our procedures required during development. Some commented that the format was problematic (“it was very hard to organize everything into it,” “very hard to fit everything into the little circles”), while others with limited English proficiency or limited writing skills preferred to have the provider complete the VM (“the way I learn, work, and do stuff . . . it wasn’t helpful at all. Talking is better”). Some CGs felt that it was a useful “tool” for remembering what was covered in the home visit by “talking about it, then writing it down and having it back to reference to is kinda reinforcing tool for me.” Those CGs who found the VM helpful commented that filling out the VM “was me really taking ownership of it and committing to doing it.” As another CG noted, “You think about it a lot more if you’re the one that’s actually writing it down.” The VM received the lowest ratings from CGs on the CFS survey, corroborating the split in their perceptions about the relative utility of this tool (see Table 1).

Providers. Teaching the 5Q framework through coaching impacted how home visits evolved and the professional practice of providers. One provider, reflecting on the IS IT WORKING? question, commented that “I’ve never been that specific with families . . . having them tell it back to me was very new . . . helped me know ‘yes they have it’” The IS IT WORKING? question was also noted by some providers and CGs as one that was useful in gauging child progress from session to session. Consistent with the views of CGs,

providers felt that the WHEN/WHERE/WHO question(s) “helped parents to have that aha moment . . . of ‘I can work on these things anytime and everywhere.’” The value of 5Q for providers was often reflected in comments about its ability to build CG capacity to embed instruction within everyday activities and routines (“5Q makes parents realize all the opportunities that can be used to teach the child”).

The process of teaching CGs the 5Q framework was inextricably linked to the SOOPR coaching process. This integration of 5Q and SOOPR was new territory for these providers and came with its own set of challenges. Learning how to apply coaching practices to support CG learning “required time and practice” and, for those from a strong child-focused background, “learning to sit on your hands, not intrude . . . so that the caregiver practices and talks through it.” Several providers, as well as CGs, found it difficult to explain WHY a specific learning target was developmentally or functionally important in ways CGs could reiterate—“the struggle for me was always to get some kind of commenting on connecting their targets to longer term outcomes.” Some providers found that the age and routines of infants constrained the type of goals that could be agreed to for each session (e.g., “independence was not expected, opportunities for choice were often not possible”). Others encountered challenges in teaching embedded intervention to some CGs due to the child’s needs, the presence of other siblings during home visits, limited opportunities outside the home for under-resourced families, or the native language of the family (“language barriers—they had a hard time wrapping their heads around what we were looking for them to say for each of the 5Qs”).

Despite describing the value of the 5Q framework, providers were somewhat split on the utility of the VM. Because the development process required that they use it in every session, several felt that it was redundant and that there were often indications that the CGs did not use it between sessions. However, others felt there were advantages to using the VM (“writing it down helped remind them to internalize the plan”). Several providers expressed a view, consistent with what CGs noted, that having the CG complete the VM (or complete it with them) “gave caregivers a role in decision making” and that there was ownership of what was occurring during home visits (“it was their document”). Many providers saw the VM as a means of “keeping everyone on the same page and [it] gave them [caregiver] a role in creating the plan.” Regardless of their view about the relative value of the VM, each provider tailored who wrote and how much to match the interests and abilities of the CG:

One family wanted to write it 100% of the time . . . another mom who froze up with writing . . . she was still able to use the structure of it and the ideas behind it and was able to say it all and do it all. I think for her, it being written wasn’t the kind of support that she needed.

Some noted that it was used by CGs to recall what occurred during the home visit and share with others (“they liked the visual model as a communication tool because they didn’t have to remember everything . . . they hung it on the fridge and used it with the babysitter”). Procedurally, another provider expressed the view of many in saying, “I like having something to review with the family. I think it helps put some meat around your final review.”

Focus on Relationships

CGs. CGs described the appeal of EPIC’s strong focus on strengthening the CG–child relationship and more specifically its focus on teaching the CGs strategies to support their child’s learning (“The provider taught ME!). Almost every CG commented on how she “was the main person instead of the therapist doing everything,” that they felt meaningfully included in the home visit, and that they learned how to support their child using existing routines and materials in the home. In addition, each CG commented specifically on how EPIC was notably different from their previous experiences with other EI providers/programs, and how the CG–child focus helped build their confidence and a sense of empowerment. In comparing her previous EI program with EPIC, one CG likened the prior program to a “. . . grand mom. They just come to play and are just there so I learned how to play. But EPIC helped me to think about how to teach while playing with my child.” The following quote from one CG captures the sentiment expressed by many:

This program is different because it helps me to learn how to do things between the sessions . . . I also liked that we used our toys. When other therapists come with their toys and then take them away, it’s not helpful for K. because she cannot explore them. Another thing I like is that EPIC involves parents. It makes sense!

Reflecting on the way in which EPIC providers sought to involve CGs in home visits, several CGs noted that it could be frustrating when other EI providers were more focused on the child to the exclusion of the CG—“other therapies they just grab the kid and do what they do . . . I’m [not] necessarily a part of that process.” One mother echoed a similar sentiment about the appeal of the family-centered, EPIC approach:

It was the first time anyone sat back and watched me interact with my son. Usually other providers interacted with my son, and said, “you try this.” [EPIC] took my relationship with my son and who we are, and worked with us.

Providers. Relative to CGs, providers did not comment as much on the relationship between themselves and the CG. One reason for this may be that providers were already

attuned to relationships as central to the home visiting process and did not explicitly recognize differences in how they were approaching their interactions with CGs. Discussions that occurred throughout the home visits were viewed by providers as times for “brainstorming and building trust.” Home visits occurred gave them important feedback about the impact they were having on the CG–child dyad (“I liked the consistency—because you got to see how your interactions did support the growth of both the child and the family”). Consistent with the views of CGs, several providers commented on how the CG’s role evolved as the leader during home visits. These comments underscored how the intentional focus in EPIC on building CG capacity emerged as a mutually valued outcome by both providers and CGs alike (“I think there was much more emphasis on letting the parent be the leader”). One area in which providers did comment was in their reflections about front loading and its relationship to building relationships with CGs.

Front Loading

CGs. Some CGs liked the greater initial frequency of visits because it helped them understand the role and the process of the intervention quickly and fostered a sense of ownership for what their provider was teaching them (“made it a little easier because I was like okay I know that I need to make sure to do this, this, and this on Tuesday because they are coming back on Wednesday”). Others felt that it was very challenging for them as working parents and other aspects of family life were supplanted during that initial week. While some described the pressure of scheduling and the compressed sense of so much to learn in such a short period of time (“You need time to reflect and there wasn’t necessarily time to do that between sessions”), others saw benefit to the rapid succession of sessions:

Having the short gap in between was just more productive because I think it gave me . . . You know I didn’t have days and days and days to kind of get discouraged or lost or have questions. It was “you’re back, I can answer the questions and we can continue.”

One CG felt that front loading was hard not only on her but also on her child because of the initial longer session lengths and the rapid succession of home visits in 1 week. Another commented,

I had no time to think about it, to study the paperwork, to see if I could figure out what the distinctions were, because it was literally, he’s going down to sleep, and I’m trying to get the rest of the evening . . . and then she’s there in the morning.

Despite its short-term inconveniences, several CGs felt that this intense time with the provider provided a period of

relationship building and helped foster trust and “friendship and support.” Although the interview data indicated CGs struggled initially with front loading, data from the CFS corroborated their appraisal of front loading as an ultimately useful (3.50/4.0), but somewhat onerous, feature of EPIC.

Providers. Front loading was mentioned by several providers as a “quick means of giving you insights about the child, the dyad, and the family” and that the three sessions at the outset “allows establishing a relationship more quickly, with less catch up/loss in between session” and “a better view of the routines than would have had otherwise.” Several providers commented about the shift in confidence and ownership that occurred as front-loaded sessions gave way to twice or once weekly home visits (“ . . . the 3-2-2- really by the time you were in the third week they had seen me enough, they’d gotten enough time in routines that they really were taking ownership and starting to take off on their own”). As was the case with CGs, providers felt that scheduling was the biggest challenge of front loading. One provider described the concern shared by several regarding the intrusiveness into the family’s life (“The mothers I worked with seemed very hesitant to allow me to come to their home so frequently. I felt they saw it as being more disruptive than helpful. Although in the end, each saw value in it”).

Discussion

This study is unique in its incorporation of the perspectives of both CGs and providers who participated in home visits together. Our findings extend the limited body of research on CG coaching in EI where only one group (CGs or providers) participated as informants (cf. Salisbury & Copeland, 2013; Salisbury et al., 2010) and offers new insights about the use of embedded instruction in the family’s routines and activities. By drawing on the experiences and views of both adults in the triad, we begin to better understand the qualities of CG coaching and embedded instruction that matter most to these adult partners. Our qualitative analyses revealed three key findings that underscore the acceptability, feasibility, and utility of the EPIC approach as viewed and experienced by both CG and providers.

First, the SOOPR coaching process, with its explicit components and evidence-based practices, was viewed as positive and effective by both CGs and providers for building CG knowledge and skills about embedded instruction. Consistent with literature in the field of implementation science where competency drivers are posited as impacting the ability of practitioners to adopt and use evidence-based practices (Cook & Odom, 2013), EPIC incorporated PD, ongoing coaching, and performance-based feedback to improve provider competence and to increase the likelihood

that providers were implementing SOOPR with fidelity. Patterns across provider participants suggested that, despite these support efforts, CG coaching was still viewed as somewhat challenging to implement as intended in the EPIC approach. We found that many of the SOOPR coaching practices were valued by both CGs and providers and that, on balance, their experiences with the approach were positive. Providers expressed initial concern about Observation and how CGs would respond to being watched. However, they reported later that they observed the CG taking the lead and actively engaging with the child, a priority goal of the EPIC intervention. Providers identified that gaining fluency with the SOOPR components, such as Reflection and Review, also took time and practice. As providers, they needed to gain confidence in their ability to engage in reflective conversations rather than telling CG what to do.

Second, both CGs and providers shared the view that the 5Q framework was helpful in building the knowledge and skills of CGs so that they could identify and use everyday activities and routines as contexts for embedded learning opportunities. There was strong endorsement for the HOW strategies. This appeal may be rooted in the more “concrete” nature of these strategies and their visible link to child behavior. In contrast, both providers and CGs struggled a bit with the WHY and HOW DO YOU KNOW IT’S WORKING questions. One interpretation of these mixed experiences is that they perhaps reflected the ways in which coaches helped CGs understand the meaning and application of these questions in relation to their child’s learning targets. Responding to WHY and HOW DO YOU KNOW IT’S WORKING necessitates a deeper understanding of principles and practices that may have been beyond the scope of this comparatively brief intervention. There was, as well, variability in the demographics of our CG sample and this, too, may have contributed to differences in their perspectives and experiences.

Third, CGs in our sample felt the key to building their knowledge and skills was making decisions together, feeling supported, and working together as a triad within the context of existing activities and routines in the home (“I felt supported . . . So not only did K. have a choice, but we had a choice as well, as to what we wanted to work on and do. I never felt judged”). The collaborative nature of the EPIC intervention provided an appealing and useful foundation for relationship building and the means by which CGs learned to embed learning targets within everyday routines and activities.

Taken together, these findings provide an important appraisal of a multicomponent intervention involving CG coaching and embedded intervention that was theoretically and empirically grounded. Importantly, the EPIC approach was implemented in authentic contexts by providers from multiple disciplines with diverse families whose children

presented with moderate–severe delays and disabilities. It is arguable, though not yet tested, that the preliminary appeal and endorsement of the EPIC approach in these contexts with these CGs and providers foreshadows the potential for effectiveness with a broader constituency of CGs, providers, and young children.

Limitations

Several limitations exist in the present study. First, given the relatively short duration of the intervention and the small sample size, subsequent studies are needed to confirm or refute findings from the present study. Second, more providers than families participated in activities to confirm the trustworthiness of the data. This discrepancy may have influenced some of our interpretations of the intervention’s appeal. Third, although the CG sample did include families from minority communities, a larger sample of diverse CGs would afford researchers a closer look into possible differences attributable to demographics and child characteristics. Finally, these initial small-scale EPIC studies did not replace a child’s and family’s existing EI programs but rather were added to the services that they were already receiving, potentially confounding the responses of the CGs to the EPIC intervention.

Implications for Research and Practice

Implications for research. Findings from this study highlight several areas in need of further research. The EPIC front-load feature was designed to be delivered 3 times during the first week. Research is needed that compares different schedules for delivering intensive learning supports (e.g., twice each week for more weeks as suggested by some of our providers). It is unclear whether coaching twice a week would provide sufficient intensity for uptake of the 5Q features. It is also unclear whether or not front loading would pose as significant a challenge for families if those services were the only ones the child and family were receiving. Studies are also needed to determine how much PD is needed to attain threshold levels of provider competence to effectively coach CGs, and what supports for providers are needed to sustain fidelity of implementation across home visits. As we look at the experiences of CGs across both small-scale studies, more research will be needed into how we can evaluate changes in CG capacity to support their child’s learning and their ability to embed interventions into everyday routines. In addition, more research is needed into which specific coaching practices are associated with CG competence and confidence.

Implications for practice. With CGs soundly in favor of learning the 5Q process as a means of embedding instruction in

their everyday routines, future refinements of the 5Qs should investigate options that are individualized to the CG's learning preferences (e.g., rather than a written VM, video clips or digital photos could illustrate the 5Q process) and the frequency for developing the plan based on the CG's priorities and child progress (e.g., bimonthly, rather than each session). Flexibility in methods to support implementation could promote CG autonomy while still maintaining consistency during home visits.

The time required to gain confidence and competence by the providers also needs to be considered when implementing a multicomponent approach such as EPIC. Providers valued the SOOPR framework's explicit components, yet recognized the challenges of learning when and how to use them to address the child and CG's learning. For example, they not only described concerns about time spent in observation but also described the importance of watching before coaching, understanding the existing interactions between parent and child before "modifying" the interaction, and using the observations to build the CG's confidence.

This type of study is rare, yet important. The evaluation process used in this investigation focused on interactions between implementation and intervention from the perspectives of the provider and the CG. Feasibility, utility, and acceptability for both participant groups must be considered for scalability and sustainability. A further refinement of the process would include input from CGs and providers prior to introduction of the approach. Such changes would allow for examination of the perspectives of the current intervention approach, beliefs and values, challenges, and supports that might impact buy-in of the change process and eventual implementation.

Authors' Note

The opinions expressed in this report are not those of the U.S. Department of Education, and no official endorsement should be inferred.

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