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Early Interventionists' Perspectives About Changes in Caregiver Coaching During COVID-19: A Mixed Methods Study

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Abstract

Caregiver coaching is a recommended practice in early intervention; however, many barriers exist that can prevent early interventionists (EIs) from implementing it. This mixed method study was designed to understand if EIs' perceived use of caregiver coaching changed after Illinois' COVID-19 pandemic stay-at-home order. Questionnaire data and interview data were analyzed together to explore changes reported by participants. Findings show that participants believed they used coaching practices and coached within routines more often following the stay-at-home order and that their changes in caregiver coaching had an impact on families (e.g., increased caregiver engagement, child progress, more meaningful intervention). Findings suggest that the stay-at-home order evoked a much-needed change in caregiver coaching. Implications include the need for research on contributors to EIs' use of caregiver coaching and how to effectively use modeling. Implications for practice suggest that EIs should explain coaching to families and individualize their approach to promote family engagement in their children's intervention.

Keywords

caregiver coaching, early intervention, mixed methods

Early Intervention (EI), covered under Part C of the Individuals with Disabilities Education Improvement Act (IDEA, 2004), is a program for infants and toddlers with or at risk for delays and disabilities. Two goals of EI are to promote the development of children and to enhance families' capacities to support their children. Given the emphasis on families in the law, recommended principles and practices in the field focus on family engagement. Caregiver coaching is one approach early interventionists (EIs) can use to facilitate family engagement, and it is recommended by early childhood experts and professional organizations (Division for Early Childhood [DEC], 2014; Rush & Shelden, 2020; Workgroup on Principles and Practices in Natural Environments, OSEP TA Community of Practice: Part C Settings, 2008). When EIs implement caregiver coaching, they focus on supporting caregivers' ability to "(1) reflect on [their] actions . . . and (2) develop a plan for refinement and use of the action" as a way to influence their children's development (Rush & Shelden, 2020, p. 8).

Several frameworks for implementing coaching exist, but they are similar given that each is grounded in adult learning principles and each one is composed of specific practices that EIs can use with families (Friedman et al., 2012; Williams & Sawyer, 2023). For example, Rush and Shelden (2020) describe five characteristics of coaching: joint planning, observation, action/practice, reflection, and feedback. Others, such as Friedman et al., offer related but more specific practices (e.g., conversation and information sharing, guided practice with feedback). Overall, caregiver coaching focuses on participatory learning, in which caregivers have opportunities to practice and apply new knowledge and skills. Many researchers explored the effectiveness of caregiver coaching in EI. Findings suggest that caregiver coaching is correlated with increases in caregivers' skills (e.g., use of strategies, responsiveness) as well as children's development (e.g., progress toward communication outcomes) (Brown & Woods, 2016; Ciupe & Salisbury, 2020; Windsor et al., 2019). Further, as caregivers gained new skills, EIs' use of coaching practices decreased, indicating that over time, caregivers needed less support from their EIs to implement strategies with their children (Ciupe & Salisbury, 2020; Salisbury et al., 2018).

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Researchers also explored caregivers' and EIs' perceptions of caregiver coaching, which revealed benefits and barriers associated with this practice. Both EIs and caregivers believe caregiver competence and confidence were strengthened as a result of being coached (Chung et al., 2020; Douglas et al., 2020; Meadan et al., 2018, 2020; Salisbury et al., 2018; Stewart & Applequist, 2019). EIs also reported that implementing caregiver coaching with one family encouraged them to use it with others (Chung et al., 2020; Meadan et al., 2020). Finally, EIs noted that children benefit from coaching, including progress toward outcomes, more intervention from their caregiver, and increased access to services (Chung et al., 2020; Douglas et al., 2020; Meadan et al., 2018; Stewart & Applequist, 2019).

Despite the benefits of caregiver coaching, several barriers exist. One of the most prevalent barriers identified by EIs is caregiver characteristics, such as age, knowledge, mental health, physical health, cultural differences, financial constraints, family structure, expectations for services, and motivation (Douglas et al., 2020; Meadan et al., 2018, 2020; Stewart & Applequist, 2019). Child characteristics also have been reported as a challenge to using caregiver coaching. For example, EIs in one study believed that children with medical complexities needed direct intervention from a professional (Stewart & Applequist, 2019). Other barriers to coaching include time constraints and scheduling, with some EIs highlighting the limited time available for caregiver practice, reflection, and focusing on everyday routines during sessions (Douglas et al., 2020; Marturana & Woods, 2012; Meadan et al., 2018; Salisbury et al., 2018).

Technology has been identified as both a challenge and a support for caregiver coaching. It has been used in a variety of ways such as for recording/watching videos, delivering remote services, and sharing information. Challenges are related to accessing technology (e.g., devices, internet) and families' understanding of their role during remote services (i.e., telepractice) (Cheung et al., 2023; Chung et al., 2020; Marturana & Woods, 2012; Meadan et al., 2020; Yang et al., 2021). However, when access to stable and reliable technology is available and EIs and families understand how to use technology, it can address some barriers to coaching. For example, families perceived telepractice as advantageous because it enabled flexible scheduling, family engagement, communication, coaching, and access to more families (Cheung et al., 2023; Yang et al., 2021). Researchers suggested that it may be difficult to coach caregivers due to the limited time allocated to in-person visits; however, using technology to share videos for reflection and feedback *between* sessions addresses these time constraints (Meadan et al., 2018).

Research has shown that EIs do not confidently and competently implement caregiver coaching practices (Douglas et al., 2020; Meadan et al., 2018). For example, researchers found that EIs rated the *importance* of caregiver coaching practices higher than their *use* of the practices (Meadan et al., 2018). Likewise, when comparing EI session logs and participants' ratings of their use of coaching practices, researchers found that participants *documented* using fewer coaching practices during sessions than they *rated* their use of them (Douglas et al., 2020). Additionally, researchers have shown that most caregiver coaching occurs during play (Brown & Woods, 2016; Marturana & Woods, 2012), with little attention given to other routines and activities. Coaching caregivers during these other routines may be difficult due to scheduling constraints (Meadan et al., 2018; Rush & Shelden, 2020); that is, some routines that families want to address during coaching sessions may not occur during scheduled intervention times.

Due to the COVID-19 pandemic, many EI programs across the United States introduced telepractice in place of, or in addition to, in-person services in 2020 (Early Childhood Technical Assistance Center, 2022). While researchers and professionals have discussed the benefits and barriers to remote services in recent years, many EIs and families participated in telepractice for the first time because this was the only option for services during the height of the pandemic. Therefore, it is reasonable to hypothesize that some of these individuals also engaged in caregiver coaching for the first time during the pandemic. Even for EIs who subsequently returned to in-person services, it is possible that some engaged in more caregiver coaching than before the pandemic by taking a hands-off approach to prevent the spread of the virus or because they realized the benefits of coaching caregivers.

Due to states' changing guidance in EI in response to the COVID-19 pandemic, it is important to understand if and how EIs' practices changed. While this study focused on the pandemic as a catalyst for change, these changes could have implications beyond the pandemic. For example, having opportunities to practice caregiver coaching via telepractice may be beneficial for EIs. The purpose of this mixed method study was to explore changes in EIs' perceived use of caregiver coaching practices since Illinois's COVID-19 stay-at-home order, which required that individuals stay home and that non-essential work conducted outside the home, such as EI services, cease (Exec. Order No. 2020-10, 2020). We conducted this study in Illinois due to our extensive knowledge of EI in the state and the fact that each state is responsible for choosing how EI services are enacted, resulting in variability across states. While some states required a coaching service delivery approach prior to the pandemic (e.g., Georgia, Tennessee), Illinois had only emphasized it as a recommendation. Illinois EIs who delivered services immediately following the stay-at-home order had to use telepractice and were required to attend a 3.5-hour mandatory virtual training about telepractice and caregiver coaching.

We aimed to explore participants' perceptions of their use of caregiver coaching. Exploring perceptions allows researchers to understand how participants see and make meaning of their actions and experiences (Creswell & Creswell, 2018). Two questions guided this study: RQ1. What changes do EIs in Illinois report about their implementation of caregiver coaching, from before the COVID-19 stay-at-home-order to the present (after the order was lifted)? RQ2. For EIs who reported the biggest changes in caregiver coaching, what impact do they believe these changes had on families?

Method

The research team included the two authors, plus an additional special education professor and two special education master's degree students. As recommended by mixed methods experts, we aim for transparency about how our mental model influenced the development of and decisions made throughout the study (Creswell & Creswell, 2018; Greene, 2007). A mental model is a statement of the "assumptions, theoretical commitments, experiences, and values" that underlie researchers' work (Greene, 2007, p. 3). This study was conceptualized based on the experiences of the first author, who works as an EI developmental therapist (DT) in Illinois and delivered services via telepractice during this study. Her knowledge and experiences were instrumental in constructing the study, developing rapport with participants, and interpreting the data. We worked from a pragmatic approach, in which mixed methods are used to address research problems and answer questions (Creswell & Creswell, 2018). Some characteristics of pragmatism evident in this study include viewing truth as tentative and changing over time, informing effective practice through research, and recognizing that knowledge is constructed *and* relative to life experiences (Johnson & Onwuegbuzie, 2004). This study was based on Bronfenbrenner's (1989) ecological systems theory, which purports that individuals are affected by several systems, including the microsystem, mesosystem, exosystem, macrosystem, and chronosystem, which range from small (e.g., family unit) to broad (e.g., historical changes). We focused on the mesosystem, which is the interaction among important individuals in one's life. Specifically, through this study we explored interactions between caregivers and EIs, who both influence children's development.

Mixed methods research combines elements of quantitative and qualitative research to gain a comprehensive understanding of a topic (Corr et al., 2020; Creswell & Creswell, 2018). The purpose of mixing methods in this study was for development and complementarity (Greene, 2007). More specifically, questionnaire data informed the interview sample and the development of the interview protocol. We then mixed results from both phases to identify complementary findings between the two sources. See the online supplemental materials (Figure S1) for a visual representation of the study procedures, which are described in the following sections. Noteworthy, integrating data for the purpose of complementarity is likely to result in both convergent (i.e., confirming) and divergent (i.e., contradicting) findings, which should not be considered problematic, but rather, an opportunity for greater understanding (Greene, 2007).

Phase 1

Participants. We included 91 participants in Phase 1, most of whom were White (92.3%) and female (97.8%). They were between 27 and 74 years old ($M = 46.93$, $SD = 12.24$), with 2 to 40 years of experience ($M = 15.29$, $SD = 9.79$). Participants represented all 25 regional offices in Illinois, with the majority serving families in highly populated regions in northern Illinois. Over half of the respondents (57%) reported serving families in multiple regions. The mean number of families seen by participants per week was 18 before the stay-at-home order and 14 at the time of the study. Additional demographic information can be found in Table 1. Each participant met the following criteria: (a) was an early interventionist in Illinois, (b) provided services before the stay-at-home order *and* within the month proceeding the study, (c) implemented caregiver coaching before the stay-at-home order *or* within the month proceeding the study, and (d) was willing to complete an online questionnaire that took approximately 25-minutes.

Instrument. The questionnaire consisted of five sections: eligibility/consent ($n = 5$ items), demographics ($n = 10$ items), caregiver coaching practices scale ($n = 38$ items), routines scale ($n = 8$ items), and open-ended questions ($n = 4$). Open-ended questions prompted participants to list examples and share their opinions. The caregiver coaching practices scale was based on Rush and Shelden's (2020) Coaching Practices Rating Scale, which other researchers have adapted for similar studies. For example, Meadan et al. (2018) combined observation with action, and reflection with feedback, as these can be difficult to separate. Participants indicated how many sessions on average (on a scale of *none* to *all*) they engaged in 19 coaching indicators for two time points (i.e., before the stay-at-home order and at the time they completed the questionnaire). Similarly, for the routines scale, participants reported how many sessions on average they used each of the four Family Guided Routines-Based Intervention (FGRBI, 2004) routine categories as a context for coaching. See the online supplemental materials (Figure S2) for the rating scale items.

Procedures. Prior to beginning this study, we obtained Institutional Review Board approval. The first author piloted the questionnaire with two EIs in June 2021 by sending them the

Table 1. Demographic Information for Participants in the Caregiver Coaching Study.

Characteristic	Phase 1 *n* (%)	Phase 2 *n* (%)
Gender		
Female	89 (97.8)	13 (100)
Male	1 (1.1)	0 (0)
No response	1 (1.1)	0 (0)
Race		
Caucasian	84 (92.3)	13 (100)
Black/African American	2 (2.2)	0 (0)
Latino, Hispanic or other Spanish origin	1 (1.1)	0 (0)
Biracial	1 (1.1)	0 (0)
No response	3 (3.3)	0 (0)
Highest degree		
Associate degree	2 (2.2)	1 (7.7)
Bachelor's degree	27 (29.7)	5 (38.5)
Master's degree	56 (61.5)	7 (53.8)
Doctorate or higher	6 (6.6)	0 (0)
Role in EI		
Speech language pathology/assistant	31 (34.1)	4 (30.8)
Developmental therapy	24 (26.4)	4 (30.8)
Occupational therapy/assistant	22 (24.2)	3 (23.1)
Physical therapy	12 (13.2)	1 (7.7)
Social work/psychology	2 (2.2)	1 (7.7)
Employment type		
Independent provider	49 (53.8)	7 (53.8)
Agency-based provider	40 (44.0)	6 (46.2)
Other: Clinic-based, contracted with agency	2 (2.2)	0 (0)

link to the questionnaire and asking them to offer feedback about the clarity and content. We incorporated their suggestions (e.g., minor changes in wording, adding page breaks) into the final version. Next, we sent an email to all 25 regional EI coordinators in Illinois, asking them to forward a recruitment flyer to EIs in their area. The recruitment flyer included a hyperlink and QR code that directed potential participants to the online questionnaire. After 2 weeks, we sent a follow-up email to the coordinators of regions that had less than five questionnaire respondents. We also posted the recruitment flyer in EI social media groups with up to two reminders. When participants began the questionnaire, they were prompted to answer screening questions to ensure their eligibility and consent to participate; then, they proceeded to the remaining questions. Participants who completed the questionnaire and opted to leave their contact information were entered into a drawing for a $10 Amazon gift card, which 1 out of every 20 participants received. We collected questionnaire data between June 30th and August 6th, 2021.

Data Analysis. We analyzed numeric questionnaire data using both descriptive and inferential statistics. Descriptive statistics were used to present participants' demographic characteristics, describe the degree of change reported for each caregiver coaching practice and routine (e.g., mean change scores), and select Phase 2 participants. Inferential statistics included two Cronbach's alpha tests to determine the internal validity of each scale and paired sample *t* tests to determine the significance of changes. Cronbach's alpha values for the practices scale ($\alpha = .94$) and the routines scale ($\alpha = .833$) indicated relatively high internal consistency. Prior to conducting *t* tests, we replaced missing values using mean imputation; that is, each missing score ($n = 29$, 0.69%) was replaced with the mean score across participants for that item.

The first and second author analyzed the four open-ended questions using qualitative coding procedures. First, we used deductive codes (e.g., pre-coaching, joint planning, observation/action, and reflection/feedback) to identify examples of changes in coaching. Next, we identified inductive codes (e.g., family member engagement) from the data. We independently coded each question and then met to discuss and categorize our codes, reaching consensus.

Data Integration—Development

We used the questionnaire results to select participants for Phase 2 and to develop interview questions, which is consistent with mixing methods for the purpose of development (Greene, 2007). See the online supplemental materials (Figure S3), for a visual of how the findings from Phase 1 informed the development of Phase 2. We selected participants with the greatest change scores for two reasons: (a) to explore positive changes in the field and (b) most participants whose change scores were small rated their use of caregiver coaching highly before the stay-at-home order, reflecting their belief that they were already implementing it well. To determine which Phase 1 participants would be invited to participate in Phase 2, we used a purposeful sampling approach. We calculated changes in coaching by looking at the differences between the before and current scores for the two scales (coaching practices and coaching routines). We then computed one *change in coaching score* for each participant by calculating the mean of the two scales' difference scores (range = −0.47 to 2.66). Only participants who answered all quantitative questions were considered for the second phase. We identified seventeen potential interviewees whose *change in coaching score* was above 1 (range = 1.07–2.66). Of these potential participants, 13 had indicated on the questionnaire that they were willing to participate in a follow-up interview; they were all contacted by the first author, and all agreed to be interviewed. The interview protocol also was informed by Phase 1. For instance, we added a question to gain insight into why some participants ($n = 32$, 35%) reported a negative change in modeling. Further, we developed interview questions about the impact

of coaching on families because the topic of family engagement emerged in responses to three of the open-ended questionnaire items, although this topic was not prompted.

Phase 2

Participants. All 13 interview participants were White and female. They represented 16 of the 25 regional offices in Illinois and a variety of EI roles. Their ages ranged from 28 to 70 years ($M = 50.15$, $SD = 12.0$), with 2 to 34 years of experience ($M = 17.92$, $SD = 9.78$). Demographic information for Phase 2 participants is displayed in Table 1. The mean number of families seen by interview participants per week was 17.5 before the stay-at-home order, 15 at the time of the questionnaire, and 13.27 at the time of the interview.

Instrument. We developed a semi-structured interview protocol after Phase 1. See the online supplemental materials (Figure S4) for the interview questions. We chose to use semi-structured interviews to allow for flexibility and permit the first author to ask additional questions as needed.

Procedures. The first author conducted two pilot interviews with EIs to determine the amount of time it took to complete the interview and identify confusing questions. During these interviews, participants unintentionally discussed coaching practices together due to their interrelatedness, rather than individually as intended; therefore, we added a statement at the beginning of the protocol to encourage participants to focus on one practice at a time and to warn them that they may be redirected as needed. Next, we contacted the 13 purposefully selected participants by email or phone. All individuals confirmed their interest in participating in Phase 2 of the study, completed an online consent form, and completed interviews in October 2021 via Zoom. Before each interview began, the first author obtained verbal consent. Individual participants' rating scale responses from Phase 1 were displayed through Zoom for them to refer to during the interview. The first author asked participants to describe their change scores for each coaching practice (pre-coaching, joint planning, observation/action, reflection/feedback) and routine (play, literacy, caregiving, community/ family), but did not ask them to explain changes for every coaching indicator (e.g., reflecting on the process of coaching). This resulted in participant comments that addressed more than one coaching indicator while some coaching indicators were not addressed at all, which is apparent in our findings. The length of the interviews ranged from 21 to 68 minutes ($M = 49$). After the interviews, we sent participants a copy of *The Early Childhood Coaching Handbook* (Rush & Shelden, 2020) as compensation for their time. Recordings were transcribed using Zoom software; two members of the research team reviewed each transcript to check for accuracy. We sent each interview participant a two-page summary, which included descriptions of the interview data as well as quotes from the participants and the first author's interpretation of the quotes (i.e., member checks) to ensure initial interpretations of the data were accurate. All 13 participants responded that they had read the summaries; two individuals edited their summaries, including grammatical corrections of their quotes and clarification of their EI role. Participants received a $5 Amazon gift card for the time spent reviewing their summary.

Data Analysis. We used thematic analysis to analyze the interview data following Braun and Clarke's (2006) six-phase process: (1) familiarization with the data, (2) generating initial codes, (3) searching for themes, (4) reviewing themes, (5) defining and naming themes, and (6) producing the report. Familiarization began with data collection; the first author took notes during interviews, reviewed and corrected each transcript, and wrote summaries of each interview to become immersed in the data. We then developed initial codes by independently coding one interview at a time and meeting to discuss our codes and reach consensus. After four interviews were coded, the first author created a data table in which each coaching practice and routine had a list of codes and sample quotes under it. We reviewed and categorized the codes independently, and then met to discuss our categories and reach consensus, referring to the quotes as needed to ensure that the categories accurately represented the participants' statements. We developed a codebook in which the categories and codes for each coaching practice and routine were defined; this was used to code the remaining nine interviews. When a participant's comment fit more than one code, we assigned it multiple codes and the quote was added as supporting evidence for each category it represented. We continued to meet after independently coding transcripts, to reach consensus and refine the codebook and definitions. After all the interviews were coded, we reviewed the categories under each coaching practice and routine in relation to the other categories to ensure that they were distinct and checked that supporting quotes under each category were accurately represented.

To ensure the credibility and trustworthiness of the qualitative data, we conducted first level member checks, engaged in collaborative work during the design and analysis of the data, and provided sufficient quotes as evidence of our interpretations (Brantlinger et al., 2005). Further, we disclosed our experiences and beliefs (i.e., researcher reflexivity; Brantlinger et al., 2005) in the beginning of the methods section of this paper so readers can understand how our work is influenced by our position.

Data Integration—Stronger Conclusions

The quantitative and qualitative data were integrated during analysis to identify convergent and divergent findings across the two methods, which allows for stronger conclusions (Corr et al., 2020; Greene, 2007). We merged and analyzed data together using a joint display table, which is "an approach to show the integration data analysis by arranging in a single table or graph the quantitative and qualitative data" (Creswell & Plano Clark, 2018, p. 228). More specifically, our findings are displayed in "Talking Tables," in which illustrative quotes are presented next to quantitative findings (Jantsch & Neves, 2023).

Findings

In the following sections, the questionnaire and interview data are presented. First, the quantitative questionnaire results are used to describe significant changes for the two coaching scales (i.e., practices, routines). Next, we describe the changes (both quantitatively and qualitatively) and participants' perceptions of the impact on families that resulted from each change (qualitatively) for each coaching practice and for the four routines.

Significant Changes in Practices and Routines

There was a significant change in how many sessions per week the participants reported using coaching practice indicators from before the stay-at-home order ($M = 2.95$, $SD = 0.74$) compared to when they completed the questionnaire ($M = 3.44$, $SD = 0.53$); $t(90) = 7.743$, $p < .001$, $d = 0.81$, indicating that participants believed they used coaching practices within more EI sessions at the time of the questionnaire than they did previously. The effect size for this analysis ($d = 0.81$) is slightly greater than Cohen's (1988) convention for a large effect ($d = 0.80$). The mean change scores for Phase 1 and Phase 2 participants for each coaching practice and its indicators can be seen in Figures 1 through 4. There also was a significant change in how many sessions EIs reported using routines (play, caregiving, literacy, community/family) as contexts for coaching before the stay-at-home order ($M = 2.67$, $SD = 0.90$) and at the time they completed the questionnaire ($M = 3.19$, $SD = 0.75$); $t(90) = 5.85$, $p < .001$, $d = 0.61$, indicating that participants believed they used routines for coaching more consistently at the time they completed the questionnaire than before the stay-at-home order. The effect size for this analysis ($d = 0.61$) exceeds Cohen's (1988) convention for a medium effect ($d = 0.50$). The mean change scores for Phase 1 and Phase 2 participants for each routine are shown in Figure 5.

Perceptions of Changes and Impact on Families. We describe participants' perceptions of changes and impact together in this section so that readers can see the relationship between participants' changes and their beliefs about the impact on families for each coaching practice (i.e., pre-coaching, joint planning, observation/action, reflection/feedback). Also, given that participants reflected on their changes in one area and then described the impact in that area, this organization reflects participants' experience during interviews. We describe each coaching area individually, but routines are discussed broadly because the categories used to describe the data were similar across the four routines (play, literacy, caregiving, community-family). The data are mixed in this section in two ways. First, quantitative and qualitative findings are displayed jointly (see Figures 1–5) to illustrate how participants' quotes converge or diverge from the rating scale results (Creswell & Plano Clark, 2018; Greene, 2007). Second, each participant's *individual* change scores are provided next to their quotes to illustrate the relation between a participant's change score and their thoughts.

Pre-Coaching—Changes. Pre-coaching was the practice in which participants reported the greatest change on the questionnaire. Two pre-coaching indicators (clarifying roles, agreeing to begin coaching) were among the top five greatest reported changes across all indicators. We identified two major changes in participants' use of pre-coaching, which included their explanations of coaching and their interactions with families. Explanations of coaching included explaining the purpose and roles of coaching, as well as individualizing their explanations for families. In Figure 1, two participant quotes confirm that explaining coaching and clarifying roles were two indicators with high change scores. While most participants said that it is more important to explain coaching now, others felt like telepractice made the roles of caregivers and EIs more distinct.

Responses about changes in interactions included having increased time to converse and develop rapport, focusing more on relationships rather than the environment, and paying attention to their own and families' nonverbal cues. As shown in Figure 1, participants reported relatively small changes in their use of rapport building, likely because it was rated highly *before* the stay-at-home order. In fact, on average, Phase 1 participants reported a negative change due to masks and telepractice making relationship building more complicated. However, as illustrated by the quote in Figure 1, some interviewees reported having more time to talk with caregivers and develop rapport, which is a divergent finding. Another example of divergence is that quantitative data revealed that agreeing to begin coaching with families was an area of great change. However, when

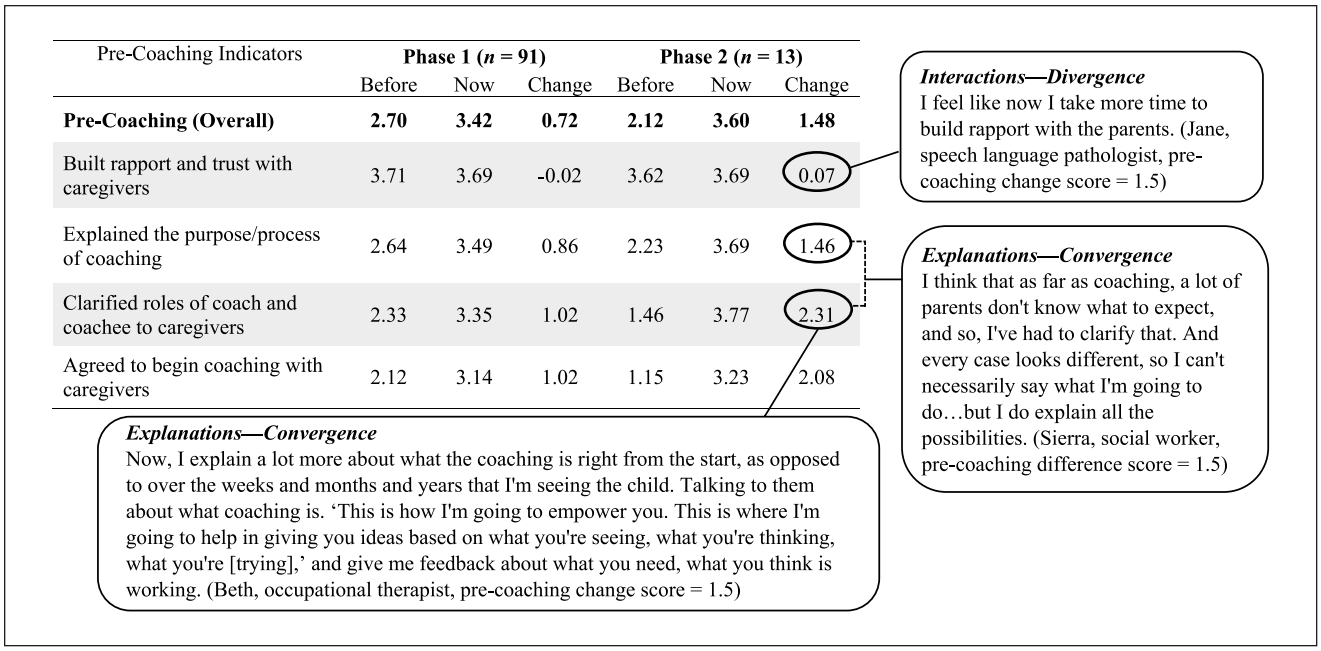

Figure 1. Talking table of pre-coaching changes.
Note. The Before and Now scores represent how many sessions (on average) participants reported using each indicator, on a scale of *none* (0) to *all* (4). Sample quotes are connected to the mean change scores (circled) for each related coaching indicator.

participants were asked to describe changes in the pre-coaching area, this topic never came up during interviews.

Pre-Coaching—Perceived Impact on Families. Participants described three impacts for families related to their changes in pre-coaching: caregiver engagement, clarity, and challenges. When participants discussed caregiver engagement, they mentioned better caregiver-child interactions, excitement about intervention sessions, fewer cancellations, and increased caregiver-led sessions. For instance, Sierra shared,

> I'm spending a little bit more time with this area and I think that's helping [caregivers] to see the value and become more engaged, whereas before I . . . skimmed over it a little bit too much and just dug right into the strategies. (Pre-coaching change score = 1.5)

Clarity for families included both clarity for children and caregivers. Kristen, a speech language pathologist (SLP), shared, "I think it's been good to actually have those conversations out loud with families, so they know what to expect . . . They know what it's going to look like and why" (pre-coaching change score = 0). While most participants thought pre-coaching conversations were beneficial for families, a few participants described challenges, such as caregivers' preferences and feeling overwhelmed. Britni, an occupational therapist (OT) said,

> Some of the families who've had therapy done the old way [child-directed], or who have therapists who are still doing it the old way are like, "I want you in the home as soon as possible." And I think those are the families that [pre-coaching] is the hardest with. (Pre-coaching change score = 2.25)

Reflection/Feedback—Changes. Reflection/feedback was the practice with the second greatest change score across participants. One of the indicators (reflecting on coaching) was among the top five greatest reported changes across all indicators. However, this topic was not brought up during interviews, given that participants chose which aspects of reflection/feedback they wanted to discuss. We found two changes in reflection/feedback: delivery of reflection/feedback and caregiver control. When discussing the delivery of reflection/feedback, participants noted that it was more specific, ongoing, and immediate. As illustrated in Figure 2, quotes about how participants delivered reflection/feedback confirmed change scores for two indicators: prompting reflection and providing feedback. When participants discussed caregiver control, they said they encouraged families to take the lead in reflection/feedback conversations. Participants' quotes related to caregiver control are provided in Figure 2; these quotes support the change scores for asking probing/clarifying questions, prompting reflection, and problem-solving.

Reflection/Feedback—Perceived Impact on Families. Participants shared that their changes in reflection/feedback resulted in increased caregiver confidence and more meaningful intervention for families. Participants believed that

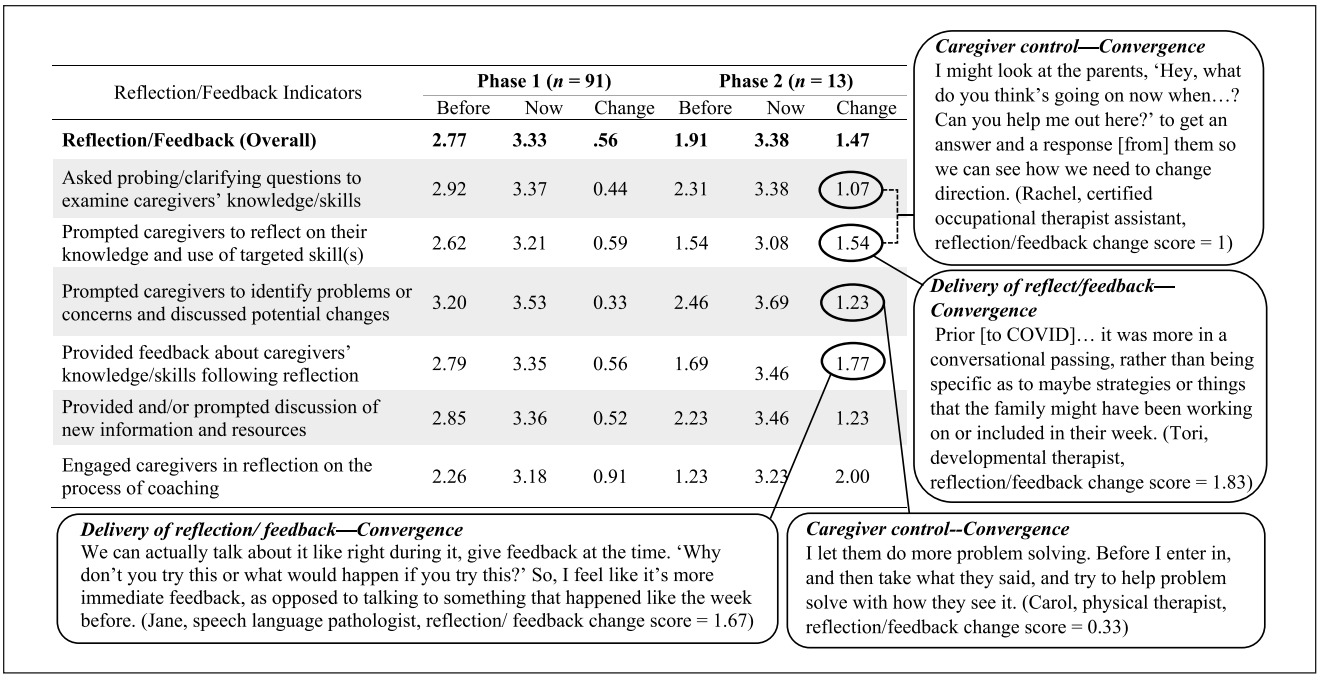

Figure 2. Talking table of reflection/feedback changes.
Note. The Before and Now scores represent how many sessions (on average) participants reported using each indicator, on a scale of *none* (0) to *all* (4). Sample quotes are connected to the mean change scores (circled) for each related coaching indicator.

caregivers had more confidence in themselves, their EIs, and EI services. Melissa explained,

> It just gives [caregivers] more faith in the services, it gives them more desire to give me more. "We did this," we chant. "We took this challenge. We ran with it. Give me more." We're making progress, and they have a real strong belief in what we're doing now. (Reflection/feedback change score = 1.17)

Examples of how participants believed intervention was more meaningful for families included comments about caregivers focusing on positive strategies during and between sessions, using reflection to tailor their children's intervention, and being honest with their EIs about problems they were experiencing. Kristen, an SLP, shared,

> I've come to realize that [sessions focused on problem-solving] are really valuable and some of the most powerful sessions, because I feel like I'm really empowering the family to make a meaningful change when I'm not there. And usually after those sessions, the following one, the family will be able to report all of these positive things that have happened since then. (Reflection/feedback change score = 1.17)

Observation/Action—Changes. Observation/action was the practice with the second lowest change score. However, two indicators (observing caregivers, caregiver practice) were among the top five greatest reported changes across all indicators. Interviewees' explanations of changes in observation/action fit into two categories—role release and the use of technology. Role release included participants observing more, modeling less and in different ways, encouraging caregivers to be "hands on," using family materials rather than their own materials, and teaching/prompting caregivers more often. As shown in Figure 3, participant quotes related to role release support the increased change scores for observation and caregiver practice, as well as the decreased score in modeling. Participants who discussed using technology for observation/action mentioned using earbuds so families could more easily practice strategies with their children, watching families practice via recorded video, and observing families with other EIs during telepractice co-treat sessions. Figure 3 includes one quote that highlights how participants used technology to engage in more planned and unplanned opportunities to help caregivers learn following the stay-at-home order.

Observation/Action—Perceived Impact on Families. Participants reported that their changes in observation/action impacted families in the following ways: caregiver confidence in strategies, everyday intervention, and child progress. Caregiver confidence included increased skills and knowledge. Ariana, a DT, said, "I feel like families feel more competent in their role as the therapist really and being able to address behaviors and strategies and

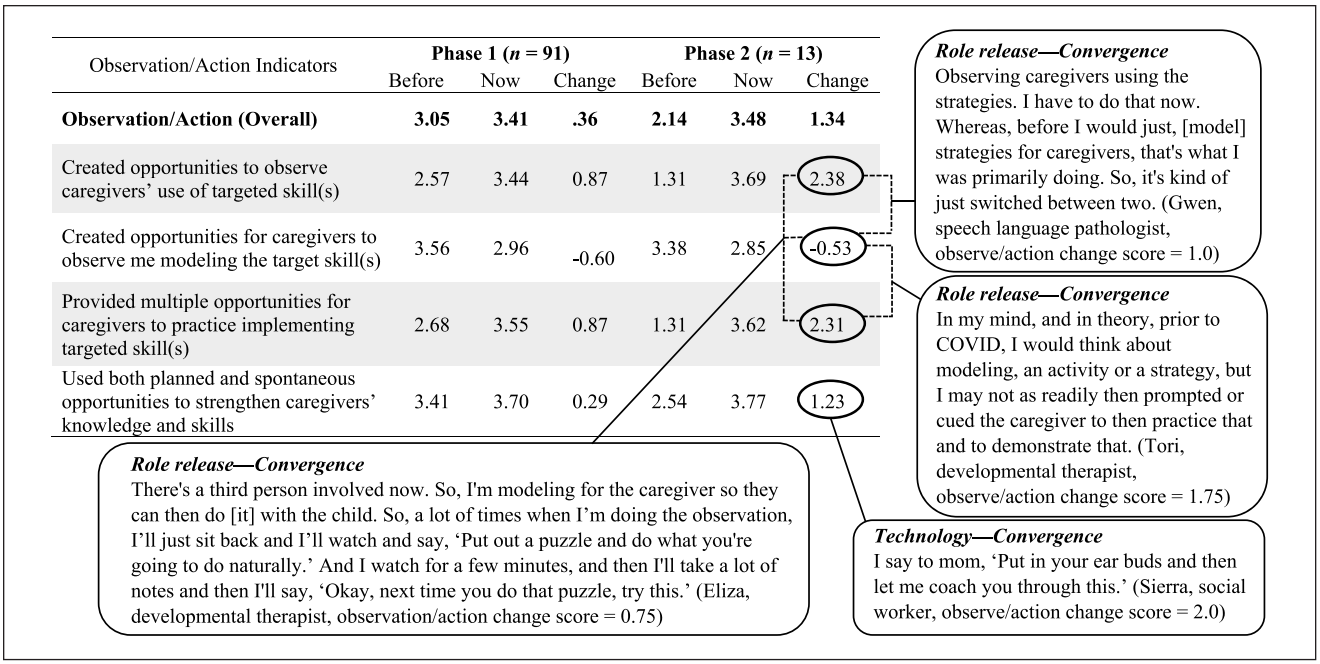

Figure 3. Talking table of observation/action changes.
Note. The Before and Now scores represent how many sessions (on average) participants reported using each indicator, on a scale of *none* (0) to *all* (4). Sample quotes are connected to the mean change scores (circled) for each related coaching indicator.

whatever's on the IFSP [Individualized Family Support Plan]" (observation/action change score = 1.5). Family impact related to everyday interventions included comments about how caregivers could now more easily embed intervention into their daily life with household materials and that children received intervention from their typical caregivers within naturally occurring routines and activities. Participants also felt that children gained skills and caregivers recognized their children's progress as a result of their changes in observation/action. For example, an SLP named Jane said,

> I always ask the parents after the [telepractice] session, "How do you think it went?" and more often than not, they're very surprised at how well their child did, how well they paid attention, how they imitated something, and they never would have thought that they would do that with them. (Observation/action change score = 1)

Joint Planning—Changes. Joint planning was the practice with the lowest reported change score on the questionnaire, which was confirmed when three interviewees (23%) reported no change in this area. Those who did indicate a change, described their individualization and knowledge of caregivers. Examples of individualization included using caregiver priorities to guide planning, modifying plans and adding supports, inviting families to write down plans, using technology to display and remember plans, and encouraging families to participate in planning rather than participants coming up with plans on their own. Two quotes are provided in Figure 4 related to participants developing plans *with* families, which support the quantitative change score for this indicator. When participants spoke about how their knowledge of caregivers changed, they mentioned that they understood caregivers' skills and priorities better and that they explicitly asked families about their skills and priorities more often.

Joint Planning—Perceived Impact on Families. Participants believed their changes in joint planning impacted families' learning (both children and caregivers) and caregivers' involvement in their children's intervention. Rachel, a certified occupational therapist assistant (COTA), discussed family learning when she shared, "I think they've learned a lot. I've seen a lot of successes in a short period of time. And it makes them feel more involved in their child's well-being and caring" (joint planning change score = 0.4).

Caregiver involvement included how caregivers helped develop plans, prepared materials, and implemented strategies. While most comments about caregiver involvement were positive, Gwen, an SLP, noted that planning may cause stress. She said, "For other parents, I think [planning] might overwhelm them . . . if they're asked to get an activity together and they don't have things for the activity, if they're working, if they have other kids on top of that" (joint planning change score = 0.8).

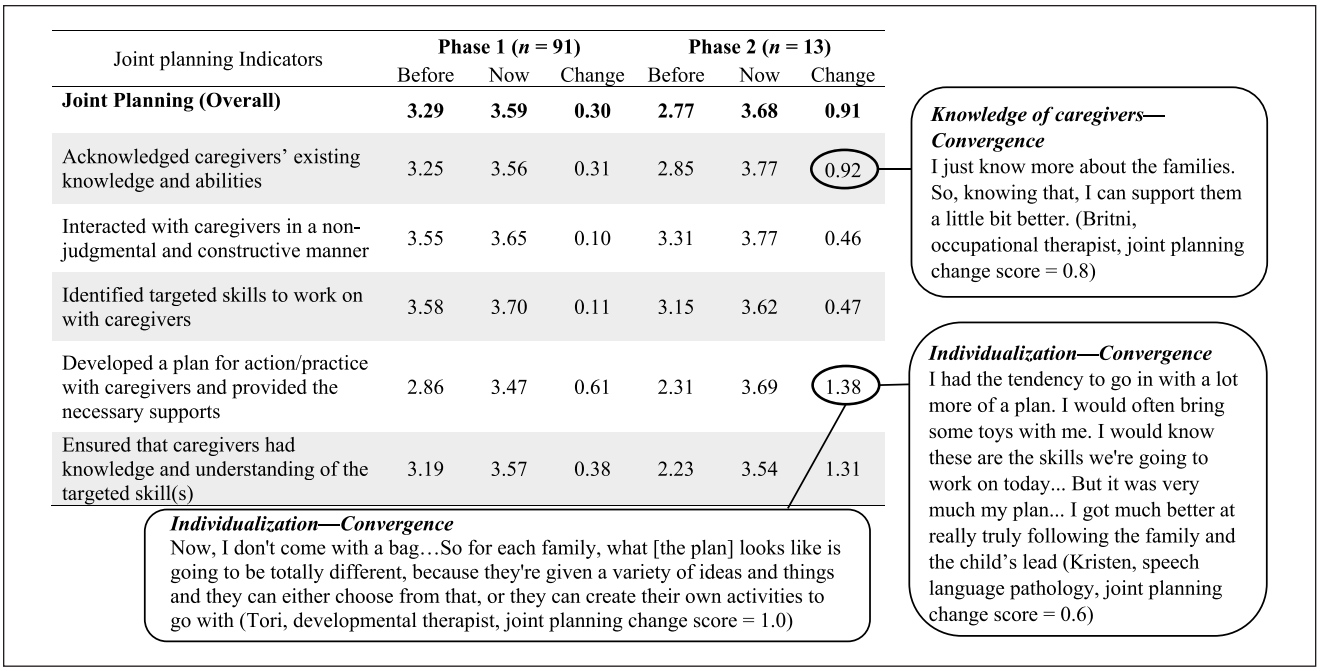

Figure 4. Talking table of joint planning changes.
Note. The Before and Now scores represent how many sessions (on average) participants reported using each indicator, on a scale of *none* (0) to *all* (4). Sample quotes are connected to the mean change scores (circled) for each related coaching indicator.

Routines—Changes. Changes in participants' use of routines for coaching included role changes and the use of technology, which align with the changes noted in the observation/action area. When participants discussed changes in their role during everyday routines, they explained that they no longer worked directly with the child, and instead, prompted caregivers to do more "hands on" work while they observed, offered suggestions, taught, and provided feedback. In Figure 5, three quotes are shared to highlight participants' increased use of routines (caregiving, play, literacy) as contexts for coaching. Examples of changes in participants' use of technology included teaching caregivers how to use technology appropriately and maximizing interventions with technology. As shown in one quote in Figure 5, technology helped participants coach caregivers during a variety of routines, which confirms the questionnaire data highlighting an overall increase in the use of routines as contexts for coaching.

Routines—Perceived Impact on Families. Participants believed their changes in coaching within routines impacted families in terms of caregiver learning and more everyday intervention. When participants discussed caregiver learning, they mentioned that caregivers learned how to elicit child skills during various routines and caregivers felt more confident and empowered to implement strategies. A focus on everyday intervention included comments that centered on embedding intervention into families' daily lives, encouraging children to learn from their caregivers, involving siblings, and encouraging functional learning for children. Ariana described how families intervened throughout the day,

> I feel like families feel like they can do this. It doesn't have to be me, the therapist coming in, on this day, at this time. Us going in a little room and doing it. It's mom kind of incorporating all these play activities, and even the other routines, basic things into their day. (Routine change score = 2.25)

Discussion

The purpose of this study was to understand if and how EIs' use of caregiver coaching changed in response to Illinois' stay-at-order and EIs' perceptions of how these changes impacted families. Our findings indicate there were significant changes in participants' reported use of coaching practices and routines from before the stay-at-home order to the time they completed the questionnaire; participant quotes illustrate what these changes looked like in practice. Interviewees believed that their coaching changes impacted families' learning and engagement and made intervention more meaningful for children and families as it was embedded in their daily lives.

The practice with the greatest reported change was pre-coaching. While previous researchers reported that pre-coaching practices were important to EIs (Douglas et al., 2020), findings from our study add to the literature by

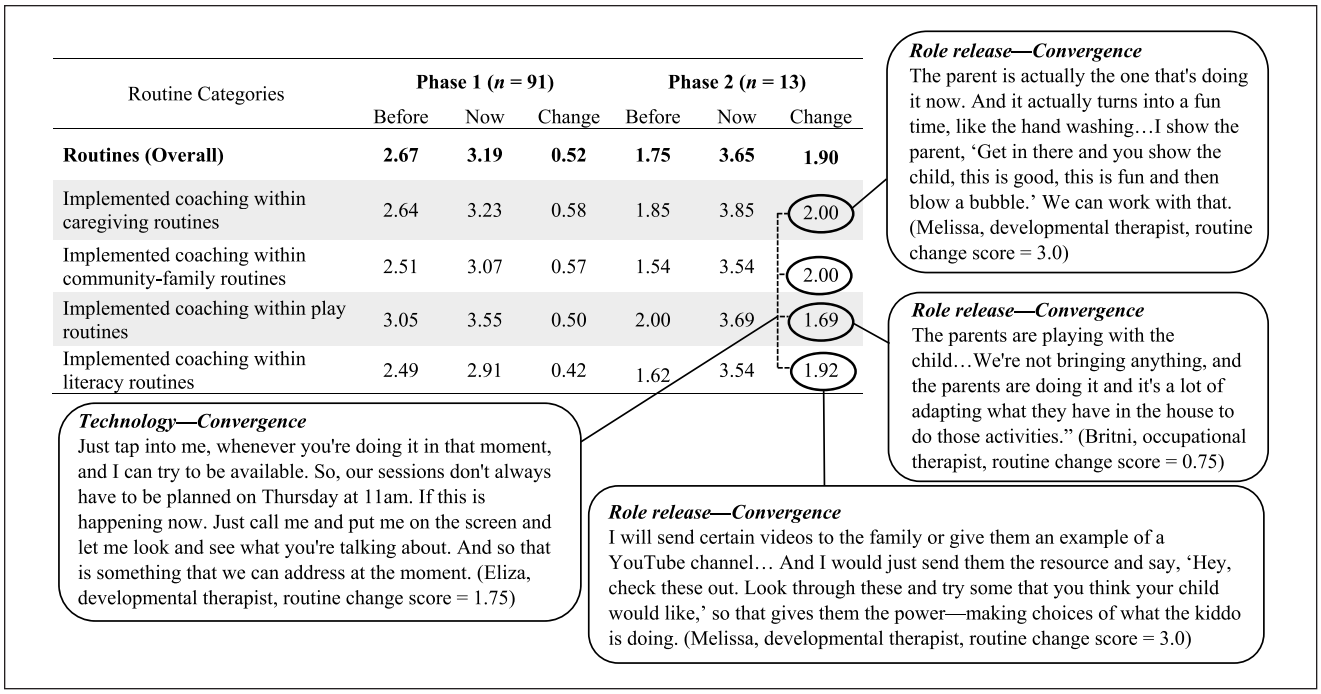

Figure 5. Talking table of routine changes.
Note. The Before and Now scores represent how many sessions (on average) participants reported using each indicator, on a scale of *none* (0) to *all* (4). Sample quotes are connected to the mean change scores (circled) for each related coaching indicator.

highlighting EIs' reported use of pre-coaching indicators. Further, our findings suggest that engaging in pre-coaching practices can address barriers to coaching identified in previous research, such as caregiver expectations for services and caregiver motivation (Meadan et al., 2018, 2020; Stewart & Applequist, 2019). In fact, interviewees noted that by explaining coaching to families, caregivers had clearer expectations of what intervention would look like and they were more engaged during sessions.

Reflection/feedback was the practice with the second highest change score in the current study. This is a promising finding given that reflection/feedback is essential to caregiver coaching and adult learning (Rush & Shelden, 2020; Trivette et al., 2009), and previous research has shown that EIs do not use it consistently or effectively with caregivers (Lorio et al., 2021; Meadan et al., 2018). Meadan et al. (2018) found that reflection/feedback was the lowest rated coaching practice compared to joint planning, observation, and action in terms of both importance and use. Findings from the current study indicate that participants realized the importance of reflection/feedback, incorporated it into their EI sessions more often following the stay-at-home order, and used it more effectively by being more specific, implementing it throughout sessions, and using it immediately following caregiver practice.

Although observation/action was one of the lowest reported areas of change across participants, this was largely due to the modeling indicator. While modeling was rated highly before the stay-at-home order, which is consistent with another study in which modeling was rated highly in terms of use and importance (Meadan et al., 2018), following the stay-at-home order, many participants found it more difficult to model using a virtual format. The negative change score may be due to the participants' inability to interact directly with a child or being unsure of how to use materials (e.g., dolls, pillow) to model strategies on screen.

Noteworthy, findings from this study do not suggest or imply which coaching behaviors *should* be used most or least often. In fact, experts in coaching have indicated that modeling should be used for brief periods of time when a caregiver wants to see a demonstration of a specific strategy, and it should always be paired with reflection and/or caregiver practice (McWilliam, 2016; Rush & Shelden, 2020). Unfortunately, this does not always happen. Thus, the negative change score for modeling may be perceived by some as a positive finding, especially given that observation and providing opportunities for caregiver practice were indicators for which participants reported some of the largest changes. Therefore, researchers and practitioners should consider changes in individual coaching indicators and ask themselves, "How do these results support or contradict changes we *want* to see in the field?"

Limitations

Although this study highlighted positive changes for some EIs since the COVID-19 stay-at-home order, several limitations exist. First, the Phase 1 findings only represent 91 of

approximately 4,300 (2.11%) credentialed EIs in Illinois; therefore, it is hard to say if the positive changes reported by these participants are representative of EIs in Illinois or other states, especially because participants volunteered for the study and therefore, might have had a strong interest in the topic. Across both phases of this study, participants were predominantly White females. Unfortunately, the purposeful sampling strategy used for Phase 2 (i.e., selecting those with the highest scores for interviews) unintentionally eliminated the opportunity for diverse voices to be heard through interviews. Further, we asked participants to think back to practices they implemented before the stay-at-home order, which may have resulted in inaccurate recollections. We felt that by asking participants to reflect on a salient event (i.e., the stay-at-home order) and then rate each statement for the two time periods consecutively (prior to the stay-at-home order and currently), they would be able to recall what their practices looked like immediately before the stay-at-home order compared to when they completed the questionnaire. A final limitation to note is that we asked participants to report on how they believed families were affected by changes in caregiver coaching. While these data show what EIs perceived was impactful to families, they do not reflect *families'* perceptions of the relationship between EIs' changes in coaching and the impact on families.

Implications

Given participants' increase in pre-coaching indicators and their perceived impact of these changes on caregiver engagement and understanding of caregiver coaching, it is recommended that EIs focus on pre-coaching indicators in their EI sessions. Explaining coaching to families during initial intervention sessions (and repeatedly as needed) may increase EIs' confidence in their role as coaches, help them implement recommended practices with family members, and position them to support family members' interactions with their children. There are a variety of online resources that can be used or adapted to explain coaching to families so they are prepared for the type of intervention they will receive. For example, the Virginia Early Intervention Professional Development website includes a parent handout that explains coaching practices (https://veipd.org/main/pdf/early-intervention-coaching_handout_highlands.pdf). EI personnel preparation faculty and in-service providers should consider providing tools, role playing/practice opportunities, and reflective activities to facilitate practitioners' use of these important pre-coaching indicators.

Participants in the current study believed their changes in coaching positively impacted families (e.g., increased knowledge and confidence). These impacts align with the goals of EI outlined in IDEA (2004), thereby indicating the importance of coaching. As participants reported, using a professional's materials and working directly with the child do not facilitate a caregiver's ability to teach their child. Rather, EIs should spend the limited time they have with families promoting family competence and confidence within everyday routines so that they can implement strategies during times when EIs are not present (McWilliam, 2010). A few participants in the current study noted that changes in their coaching may have resulted in negative impacts on families, such as being overwhelmed due to expectations for them to plan intervention sessions and be intimately involved during sessions. Therefore, it is important that EIs understand families' circumstances, needs, and preferences when coaching and that they individualize their approach. As some participants discussed, coaching should look different for every family. Further, EIs may benefit from learning how to individualize coaching through trainings, reflecting with peers, or reading about individualization in *The Early Childhood Coaching Handbook* (Rush & Shelden, 2020).

While our findings revealed that EIs believed they increased their use of coaching, they did not indicate specific factors that contributed to these changes. For example, we do not know if the required online telepractice training in Illinois influenced EIs' use of coaching. Future research should explore contributors to participants' use of coaching so they can be emphasized during pre-service and in-service preparation, and in policy. It also is important to consider how the results of this study can be replicated outside the context of the pandemic, such as collecting pre and post data to understand the impact of factors such as telepractice or reflective practice on EIs' use of caregiver coaching. This study and others have relied on self-report data and/or fidelity checklists to indicate which practices EIs use, but these data do not illuminate how coaching is actually implemented in practice. Future research should use observational data to explore the actual practices and quality of EIs' coaching interactions. Additionally, scholars have investigated the use of specific coaching practices such as joint planning (Mickelson & Hoffman, 2022) and reflection (Lorio et al., 2021), which has provided insights into how these practices can be used effectively. More research in this area, particularly related to observing and modeling for families, is needed. Finally, future research should explore families' perceptions about specific coaching practices and how families are impacted as a result of caregiver coaching, particularly for families who are underrepresented in this line of research, such as those who have children with significant support needs.

Research shows that caregiver coaching is beneficial to children and families, and it is a recommended practice in EI (Brown & Woods, 2016; Ciupe & Salisbury, 2020; Workgroup on Principles and Practices in Natural Environments, OSEP TA Community of Practice: Part C Settings, 2008). The COVID-19 pandemic challenged many individuals' beliefs about how EI services should be

delivered and provided opportunities for EIs to step out of their comfort zone of working directly with children to engage in more caregiver coaching. More work remains to ensure that families and EIs are prepared for and engage in effective coaching so that children receive optimal benefits from EI services.

Declaration of Conflicting Interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

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Supplemental Material

Supplemental material is available on the *Topics in Early Childhood Special Education* website with the online version of this article.

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