Initial Evaluation Practices to Identify Young Children With Delays and Disabilities During the COVID-19 Pandemic

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Abstract
This study utilized a mixed methods design to analyze responses from a nationally distributed survey of professionals (N = 1,000) experiences conducting initial evaluations for early intervention and preschool special education during the COVID-19 pandemic. Most personnel reported pausing their initial evaluations at some point during the pandemic. Professionals conducting initial evaluations reported various changes to their prepandemic initial evaluation process, including moving the evaluation to a remote format and asking about the impact of the pandemic on the family. Changes to the initial evaluation process were more often reported by personnel conducting initial evaluations for early intervention when compared with personnel conducting initial evaluations for preschool special education. Responses to open-ended questions yielded several challenges and positive aspects of conducting initial evaluations in person or remotely during the pandemic. Professionals in both modalities grappled with the need to ensure health and safety objectives while maintaining recommended evaluation practices. The implications of study findings for research, practice, and policy enhancements are presented.

Keywords
assessment, evaluation, early intervention, preschool, special education, COVID-19

Child Find for young children is a component of the U.S. Individuals with Disabilities Education Act (IDEA) that requires states and local education agencies to identify children below 21 years of age in need of additional support and timely intervention (Twardzik et al., 2017). Part C of IDEA (34 C.F.R. 303.321) pertains to the identification and provision of early intervention services for children from birth to age 3, and Part B 619 of IDEA (34 C.F.R. 300.128) concerns preschool special education services for children 3 to 5 years old. Despite the constant challenge of being underresourced, states have established Child Find systems to refer, evaluate, identify,
and support children with delays and disabilities (Hunt, 2020). Approximately 840,000 children from birth to age 3 and 715,000 children ages 3 to 5 participate in early intervention and preschool special education services annually (U.S. Department of Education, 2021).

Disruptions due to the U.S. response to the COVID-19 pandemic affected many of the usual pathways for young children to be referred and evaluated for early intervention and preschool special education (Brodie et al., 2021). The impact of the pandemic on referrals and processes used in initial evaluation teams for early intervention and preschool special education is unknown (Early Childhood Technical Assistance Center, 2021). The present study aimed to explore how personnel utilized initial evaluation practices during the U.S. response to the COVID-19 pandemic in the years 2020 and 2021.

**Early Identification and Service Provision**

There are multiple ways that children enter the early detection and intervention systems in the United States under IDEA Part C and Part B 619. Some children are identified with congenital needs at birth, qualifying them for support. Other children meet eligibility criteria for early intervention prior to turning age 3, such as a child who is born to a parent with an intellectual disability, dictated by state identification criteria. More often, children are referred for an evaluation for early intervention or preschool special education when development is not proceeding as expected (Hagan et al., 2017). Two of the primary opportunities for children to be referred to early intervention and preschool special education are (a) developmental screening during wellness checks with their pediatricians and (b) developmental monitoring in child care or preschool (Chodron et al., 2021).

The referral and initial evaluation process is similar for early intervention and preschool special education in that a multidisciplinary team that includes the child’s parents, teacher, and other specialists uses a combination of norm-referenced, curriculum-based, and family-guided assessment tools to understand how the child is developing in comparison with their peers (de Sam Lazaro, 2017). There are some key differences, however, in the initial evaluation procedures for young children below the age of 3 and preschoolers. First, the financial administration of the state’s early intervention system often is different from the public school system that governs preschool special education, affecting the personnel who are hired to conduct initial evaluations and the way the initial evaluation is completed (Twardzik et al., 2017). In addition, assessment tools sometimes differ; for example, early intervention teams may prefer tools developed specifically for infants and toddlers. The settings for the initial evaluation also frequently vary for early intervention versus preschool, with early intervention personnel focusing on natural settings such as the child’s home and/or child care setting. Finally, the eligibility criteria to qualify for early intervention or preschool special education differ under federal law. Eligibility criteria for early intervention Part C services include young children diagnosed with a physical or mental condition with a high likelihood of developmental delays or a developmental delay. The specific eligibility criteria for these two categories vary by state and some states also choose to serve infants and toddlers at risk of delay (Adams et al., 2013). For preschoolers, states use state-defined criteria for the 13 eligibility categories, all of which include the condition of educational impact. In addition, some states utilize a developmental delay category with state-specific criteria and age limits.

The goal of the referral and initial evaluation process is to identify those children who would benefit from early intervention or preschool special education services. The more quickly a young child is identified, the more quickly services can commence. When children do not receive supportive services or experience a delay in receiving services, there is a potential cascade of effects on the child’s development (National Institute of Child Health and Human Development, 2017). Initial evidence suggests that the pandemic highly affected early identification with half
of personnel reporting decreases in the number of children screened, referred, and evaluated for early intervention or preschool special education (Centers for Disease Control, 2020). Understanding the impact of the COVID-19 pandemic on delayed identification is crucial, given the rapid neurological and developmental changes during this period in life.

**Recommended Practices in Initial Evaluations**

A number of recommended practices for early childhood assessment have been documented and researched for evaluating young children’s needs and functioning during the initial evaluation process. The most recent reauthorization of IDEA (2004) mandates that assessments for young children suspected of a disability include the use of norm-referenced tools, observations, reports from parents or caregivers, curriculum-based assessments, and family-guided tools. The Division for Early Childhood (DEC, 2014) of the Council of Exceptional Children has outlined 11 research-based practices that are recommended for early childhood assessment. Overall, the DEC Recommended Practices suggest that professionals use multimodal assessments that are authentic, family-centered, and conducted in naturalistic environments during the child’s daily activities, routines, and environments (de Sam Lazaro, 2017).

In practice, there is evidence of variability in the use of recommended practices during initial evaluations for early intervention and preschool special education. For example, one study of early intervention providers and families in Pennsylvania revealed that children were being assessed in private rooms with unfamiliar materials instead of with familiar materials in their child care setting (Mattern, 2015). Another study found that initial evaluations of young children sometimes diverged from recommended practices by using only one assessment and failing to assess children in their native language (Williams et al., 2009). In a more recent study, early childhood professionals reported infrequently using recommended practices related to providing families with choice and input into the initial evaluation process for both early intervention and preschool special education (Steed & Stein, 2021).

**Early Intervention and Preschool Special Education During the Pandemic**

There is emerging research that has explored the myriad of impacts of the COVID-19 pandemic on young children and early childhood intervention systems of service delivery. Early reports suggest decreases in family participation in early intervention and preschool special education for their young children, decreased child attendance in child care and preschool programs, and a loss of services for children due to reduced access to program staff and services (Centers for Disease Control, 2020). As public health measures required moving some service delivery to remote options, inequities were noted for families and professionals who did not have adequate internet, devices, or technology skills (Steed et al., 2021). Racial and economic disparities regarding access to high-quality and inclusive early intervention and special education services prior to the pandemic were exacerbated (Neece et al., 2020).

Just as the pandemic affected early intervention and special education service delivery, it also affected initial evaluations. First, there were lower than typical referrals to early intervention and preschool and service delays due to suspensions of in-person services, meaning that many young children did not participate in timely initial evaluations (Masterton et al., 2021; Roberts et al., 2022). The second way in which the pandemic affected initial evaluations was in how the assessment was carried out with children and families. There is limited information available about how professionals implemented initial evaluations; however, data from one state indicated that early intervention personnel especially struggled to assess children over remote video sessions (Roberts et al., 2022). It is important to understand how personnel conducted initial evaluations with young children during the COVID-19, given the potential impact of public health measures
on the initial evaluation process. Furthermore, learning about how professionals conducted initial evaluations during the pandemic informs current and future efforts to conduct accurate and family-centered initial evaluations for early intervention and preschool special education.

Current Study

This mixed-methods study sought to understand the impact of the COVID-19 pandemic on initial Child Find evaluations to determine eligibility for early intervention or preschool special education. A national survey distributed in January through April of 2021 was used to learn about the extent to which initial evaluations were paused, the modes and changes utilized, and the challenges and positive aspects of completing initial evaluations during the pandemic. Five research questions guided the study. During the COVID-19 pandemic,

1. To what extent were initial evaluations paused?
2. To what extent did professionals conduct initial evaluations in person, remotely, or other options? How did the mode of delivery differ for professionals conducting initial evaluations for early intervention versus preschool special education?
3. What platforms were used for remote initial evaluations?
4. What changes did professionals make to conduct initial evaluations? How did changes made differ for professionals conducting initial evaluations for early intervention versus preschool special education?
5. What challenges and positive aspects did personnel report about conducting initial evaluations?

Method

Survey Design and Validation

The survey was developed by the study authors as part of a larger survey project about initial evaluation practices for early intervention and preschool special education and administered using Qualtrics. The survey included 40 total questions and was divided into six sections: (a) participant demographics, (b) evaluation processes and tools, (c) involving families in initial evaluations, (d) evaluating culturally and linguistically diverse children, (e) determining eligibility, and (f) the impact of the COVID-19 pandemic on initial evaluations. Survey questions were based on a pilot state-wide survey conducted in 2019 and modeled after other published articles that included surveys of early childhood professionals about their work and included both closed- and open-ended questions (e.g., Pizur-Barnekow et al., 2010).

Prior to distribution, the survey was piloted by sending it to five professionals who complete initial evaluations for early intervention or preschool special education in three states. Individuals who reviewed the pilot survey provided input and suggestions via email. Reviewers came from different professional backgrounds, including a developmental specialist, two speech-language pathologists, and an early childhood mental health specialist. Feedback provided was wide-ranging from offering input about their state’s initial evaluation process, recommending that we allow for more than one response for some questions, and suggesting additional response options. For example, one reviewer offered modifications to the list of assessment tools in the response options based on what could be billed for early intervention in their state. Another reviewer offered input about the names of primary tools that a speech-language pathologist might use during the initial evaluation. After receiving expert input, the research team reviewed the feedback and made changes to the survey tool, for example, adding suggested assessment tools to response options and allowing the option to select multiple answers for changes the team made when evaluating children whose home language is something other than English.
The current paper focused on participant responses to eight demographic questions and five closed-ended and two open-ended questions about the impact of the COVID-19 pandemic on their initial evaluations. These questions were selected for analyses for this project given their specific focus on the impact of the pandemic on initial evaluations. An online supplemental table lists the survey questions utilized in this study.

Recruitment
The researchers used snowball sampling for participant recruitment, first sending the online survey to Part C and Part B coordinators in each state and U.S. territory using publicly available emails on the Early Child Technical Assistance (ECTA) web-based contact lists. We asked coordinators to share the email and survey link with individuals conducted initial evaluations for early intervention or preschool special education in their state. After 3 weeks of monitoring survey responses by state, email messages with the survey link were sent to higher education faculty and personnel working in early intervention and preschool special education in states without any survey responses. These individuals were asked to share the email and survey link with individuals who conducted early intervention or preschool special education initial evaluations. Reminder emails were sent to email contacts on two occasions approximately 3 weeks apart. Given the snowball sampling technique utilized, it was not possible to know how many emails were sent with the survey link. Participants were not given an incentive for completing the survey. The authors obtained institutional review board (IRB) approval through their university prior to survey distribution.

Participants
A total of 1,730 individuals from 43 of the 50 states, one U.S. commonwealth, and one U.S. territory responded to the survey. Participants' survey responses were included in the current analyses if they conducted initial evaluations as part of their role, which was measured by an affirmative response to a survey question about conducting initial evaluations as part of their role. Individuals who conducted other components of the evaluation process (e.g., eligibility determination) but not the initial evaluation itself were excluded from analyses. We further required that participants respond to all survey items related to the impact of the COVID-19 pandemic on initial evaluations for inclusion in analyses. A total of 1,000 survey responses met inclusion criteria and were utilized in all data analyses. The 1,000 included survey responses represented 39 states and one U.S. commonwealth. When sampling a group of individuals from a large population, a sample size rule of thumb is that there are cells no smaller than five for chi-square analyses (VanVoorhis & Morgan, 2007), a metric that our sample size easily met across groups of professionals who worked in Part C and Part B and the groups of professionals who administered initial evaluations in person and remotely. Each of the 1,000 survey responses included in analyses was segregated into one of three groups: (a) individuals who conducted initial evaluations for Part C, (b) individuals who conducted initial evaluations for Part B, and (c) individuals who conducted initial evaluations for Part C and Part B. There were 332 (33.2%) respondents who conducted initial evaluations for Part C, 343 (34.3%) participants who did initial evaluations for Part B, and 249 (24.9%) participants who completed initial evaluations for Part C and Part B.

Participant characteristics did not differ by group and mirrored the early childhood field that is largely female and White (Bureau of Labor Statistics & U.S. Department of Labor, 2018). Of the survey respondents, 98% were female and 89% identified as White. Participants reported a range of terminal degrees, with the largest number of participants holding a master’s degree (n = 465, 47%), an Early Childhood Special Education license (n = 286, 29%), certification as a speech-language pathologist (n = 231, 23%), or certification as an occupational or physical
therapist \((n = 131, 13\%\)\). Most participants identified their professional role as an early childhood special educator \((n = 332, 33\%\)\), speech-language pathologist \((n = 258, 26\%\)\), early childhood educator \((n = 166, 17\%\)\), or occupational therapist \((n = 108, 11\%\)\).

Participants had worked on an evaluation team for an average of 12.34 years (range = 0–47).

Participants could select multiple response options for their community type; most participants selected a single community type \(n = 1,183, 82\%\)\). The largest number of participants selected rural \((n = 506, 35\%\)\), followed by suburban \((n = 501, 35\%\)\) and urban \((n = 153, 11\%\)\).

Two hundred two respondents \((14\%\)\) selected that they worked in two community types, with the most frequent combination working in rural and suburban communities \((n = 104, 7\%\)\).

**Design and Data Analysis**

A convergent parallel mixed-methods design (Creswell & Creswell, 2003) was used to collect and then analyze 1,000 professionals’ responses to closed- and open-ended survey questions. The design was convergent because the survey was designed and disseminated to collect both quantitative and qualitative data at the same time. Quantitative and qualitative data were analyzed individually but at the same time. Integration of quantitative and qualitative data occurred through side-by-side analysis of descriptive quantitative findings and qualitative codes and themes. Specifically, quantitative findings that were conceptually related to qualitative codes and themes were aligned in a spreadsheet and analyzed for convergence. There was an emphasis on utilizing quantitative data to inform interpretation of qualitative findings and provide a more nuanced view of professionals’ perspectives (Fetters et al., 2013). For example, quantitative analyses regarding changes made to the initial evaluation process were used to inform interpretation of qualitative findings of changes made during in person or remote format.

Quantitative data were analyzed using descriptive statistics with SPSS Version 28 (IBM Corp., 2021). Of note is that some quantitative analyses were conducted on a sample of responses higher than the total number of participants; this is due to the option to select more than one response option for those survey items. Chi-square analyses were conducted to look for statistically significant differences in evaluation modalities and assessment adaptations for initial evaluations conducted for early intervention and for preschool special education. Given the focus of the chi-square analyses on differences between early intervention and preschool special education initial evaluations, analyses were conducted only on responses from professionals who conducted initial evaluations for early intervention \((n = 332)\) or preschool special education \((n = 343)\); the 249 participants who conducted both kinds of evaluations were not included in chi-square analyses. A Bonferroni correction was used to determine \(p\) values and reduce the likelihood of Type I errors (Newton & Rudestam, 1999).

Qualitative methods were used to answer the fourth research question about challenging and positive aspects of conducting initial evaluations during the pandemic. Qualitative data were analyzed using constant comparison analysis (Glaser & Strauss, 1967). The unit of analysis was participant statements, which were phrases or sentences from participants’ open-ended responses that described one cohesive idea. A single unit could be the entirety of a participant’s response or a short phrase from a multisentence response. During the first phase of the constant comparison analysis process, the first 10% of participant responses, corresponding to approximately 145 statements for each of the two open-ended questions, were independently coded by one university faculty member and one doctoral student with expertise in early intervention and research methods. During this initial coding process, the two coders independently developed emergent codes based on participant statements. An example of an emergent code was “use of technology,” which, in response to the open-ended question about challenges, included participant statements about technology issues that interfered with the initial evaluation process.
Following the independent portion of initial coding, the researchers met to discuss the emergent codes, noting agreement and disagreements. During this discussion, some codes were combined. For example, “lack of online evaluation tools” and “not getting enough information” were combined into a code of “reliable and valid evaluation process.” At the end of this phase of coding, there were eight codes about challenges and eight codes about positive aspects of conducting initial evaluations during the pandemic. The researchers noted in their Phase 1 coding debrief that emergent codes operated differently for participants whose initial evaluations were in person versus remote. For example, for participants conducting initial evaluations in person, their statements about challenges for “observing children” pertained to missing the opportunity to observe children in child care or preschool settings due to pandemic restrictions. Participants conducting remote evaluations noted challenges about “observing children” online and not seeing muscle tone or hearing certain speech sounds.

The researchers divided the data set of open-ended responses by whether they were conducting initial evaluations in person or remotely, using participants’ responses to the survey question about mode of evaluation delivery. Each of the eight codes for challenges and positive aspects was defined specifically for the in-person and remote groups, using participant quotes to guide definitions specific to how that code was experienced for either in-person or remote initial evaluation, such as in the example provided above for “observing children.” During this second phase of the constant comparison process, the same pair of researchers from Phase 1 independently coded the first 10% of responses in each of the two datasets using the new descriptions of the codes. Ten percent is a sufficient number of coded responses for calculating interrater reliability (O’Connor & Joffe, 2020). The researchers shared their coding and calculated percent agreement across the two coders. Percent agreement of the remote coding across coders ranged from 77% to 100% ($M = 91.32\%, SD = 0.9$); percent agreement of the in person coding across coders ranged from 89% to 100% ($M = 96.28\%, SD = 0.04$).

In the third phase of the constant comparison analysis, the same pair of researchers reviewed the codes developed in Phase 2. Quotations from participants from the entire data set were reviewed and matched with each code. During the quotation selection process, the pair of researchers made collaborative decisions to keep or change the wording of the code to reflect the quotations for that code. For example, the code “observing children” for remote initial evaluation challenges included quotations that consistently referenced a reliance on parent report instead of direct observations of children. “Reliance on parent report” became the code for this challenge for professionals completing remote evaluations. The code “observing children” was kept for the challenge related to in-person evaluations. At the end of the third phase of the constant comparison analysis process, there were seven codes related to challenges and four codes related to positive aspects of conducting initial evaluations during the pandemic. The researchers grouped these codes into three themes related to remote evaluations, two themes associated with in-person evaluations, and one theme that related to both remote and in-person modalities.

**Methodological Integrity**

The researchers ensured the trustworthiness of the results through several steps (Lincoln & Guba, 1985). First, the researchers sought to sample professionals conducting initial evaluations from various states in the United States. Almost all states had some survey respondents, which supports the transferability of the results. Second, we addressed the validity of findings by soliciting input and incorporating professionals’ feedback into the survey design, using multiple researchers to analyze and code open-ended survey responses, and calculating intercoder reliability (Leech & Onwuegbuzie, 2007). Third, we kept an audit trail of each code and its description at each coding phase and ensured codes and their descriptions were grounded in participants’ own words (Koch, 1994).
Results

Pausing Initial Evaluations During COVID-19

Many participants \((n = 493, 49\%)\) described a pause in completing initial evaluations in the spring of 2020 due to COVID-19. Some also stopped completing initial evaluation in the summer \((n = 175, 18\%)\) and fall \((n = 10, 1\%)\) of 2020. The rest of participants \((n = 489, 49\%)\) completed initial evaluations continuously throughout 2020.

Mode of Initial Evaluations During COVID-19

Most professionals who completed initial evaluations for early intervention or preschool special education during the COVID-19 pandemic did so either remotely or in person. Specifically, 413 \((41\%)\) professionals reported completing initial evaluations remotely and 368 \((37\%)\) conducted them in person. Most of the 231 \((21\%)\) participants who selected “other” indicated that they were engaged in both remote and in-person evaluations.

Chi-square tests were run to explore the relationship between whether the evaluation modality was remote or in person and whether the professional was conducting evaluations for early intervention or preschool special education (Table 1). Significant differences were found with more evaluations for early intervention taking place remotely and more preschool special education initial evaluations taking place in person \(\chi^2(2, N = 675) = 226.39, p < .001\).

Platforms for Remote Initial Evaluations

Zoom was the most often utilized platform for completing remote initial evaluations for early intervention or preschool special education \((n = 397, 52\%)\). The next most common platforms were Google Meet \((n = 148, 19\%)\) and WebEx \((n = 53, 7\%)\). Other platforms used by less than 1% of participants included TheraPlatform, Doxy.me, GotoMeeting, and FaceTime. There were 149 participants who selected “other” and included additional examples of platforms they used, including Microsoft Teams, WhatsApp, Lifesize, and Cisco Webex.

Changes to Initial Evaluations During COVID-19

Professionals reported making various changes to the initial evaluation process for early intervention or preschool special education, including moving evaluations online \((n = 537, 54\%)\). Some noted using state or district guidance to complete remote initial evaluations \((n = 360, 36\%)\) and asking about the impact of COVID-19 on the family as part of their evaluation \((n = 280, 28\%)\). Less frequent changes to the initial evaluation process were to have each professional do their own part of the evaluation and then meet later \((n = 149, 15\%)\), use the publisher’s
online version of the assessment tool (n = 117, 12%), or complete the evaluation in short chunks instead of one session (n = 137, 14%). There were 73 participants who selected “other” and used the provided space to describe additional changes, such as completing fewer evaluations per day, using different tools, and having one professional conduct the evaluation instead of the team.

Chi-square tests analyzed the relationship between how professionals reported changing their assessment process and whether it was for early intervention or preschool special education (Table 2). Professionals conducting initial evaluations for early intervention were more likely to schedule evaluations using their online platform, \( \chi^2(1, N = 352) = 74.151, p < .001 \), to follow state or district guidance, \( \chi^2(1, N = 215) = 32.370, p < .001 \), and to ask about the impact of COVID-19 on the family, \( \chi^2(1, N = 190) = 16.620, p < .001 \). Professionals conducting initial evaluations for preschool special education were more likely to have each professional do their own part of the evaluation and meet as a team later, \( \chi^2(1, N = 95) = 74.151, p < .001 \), and to chunk the evaluation into multiple shorter sessions, \( \chi^2(1, N = 89) = 12.94, p < .001 \).

**Challenges and Positive Aspects of Initial Evaluations Conducted During COVID-19**

Coding participant responses to an open-ended question about challenges and positive aspects of initial evaluations during the pandemic resulted in seven codes for challenges and four codes for...
positive aspects. There were no clear distinctions among challenges and positive aspects noted for early intervention or preschool special education personnel; there were distinct differences in professionals’ experiences depending on the mode of the initial evaluation. Codes will be described by three themes for remote evaluations, two themes related to in-person evaluations, and one theme that related to both remote and in-person formats.

**Remote evaluations.** Professionals conducting remote evaluations described challenges and positive aspects that related to the themes of (a) technology, (b) tools, and (c) working with families.

**Technology.** Participating personnel reported considerable challenges using technology to conduct remote initial evaluations during the pandemic and one positive aspect:

Devices, internet, and technology skills: First, professionals reported a lack of adequate devices to gather information from children and families during synchronous video sessions. Participant 522 stated that “some families do not have devices that work properly.” Participant 1705 noted that professionals also lacked devices to help them conduct remote evaluations, saying, “our team does not have a doc cam to demonstrate skills easily to the child.” Others noted internet issues or that families did not have the technology skills to easily engage in the remote initial evaluation. For example, Participant 454 said, “many families have internet connectivity issues or have a difficult time navigating to the Google Meet sessions.” Audio and visual issues: A second technology issue was audio or visual issues during the synchronous video session that affected the quality of information gathered. Participant 373

| Initial evaluation change                                                                 | Evaluation type                  | Early intervention n | Early intervention % | Preschool special education n | Preschool special education % | χ²(1) |
|------------------------------------------------------------------------------------------|----------------------------------|----------------------|----------------------|-----------------------------|-------------------------------|------|
| We schedule a time when the evaluation team, child, and family are all available to      |                                  | 229                  | 33.93                | 123                         | 18.22                         | 74.142* |
| conduct the evaluation on our online platform.                                          |                                  |                      |                      |                             |                               |      |
| We are doing the evaluation in short chunks instead of one session.                      |                                  | 28                   | 4.15                 | 61                          | 9.04                          | 12.886* |
| Each professional is doing their own part of the evaluation with the child and family and then the team meets later. |                                  | 28                   | 4.15                 | 67                          | 9.93                          | 17.188* |
| We are asking about the impact of COVID-19 on the family (e.g., routines, safety, basic needs, and mental health). |                                  | 117                  | 17.33                | 73                          | 10.81                         | 16.252* |
| We are using the publisher’s online version of the assessment tool.                      |                                  | 51                   | 7.56                 | 38                          | 5.63                          | 2.703 |
| We are using state or district provided guidance for completing online initial evaluations |                                  | 136                  | 20.15                | 79                          | 11.70                         | 24.991* |
| Other                                                                                    |                                  | 27                   | 4.00                 | 23                          | 3.41                          | 0.501 |

*p < .001.
explained, “Audio can be a challenge at times when completing remote evaluations. Particularly if there is a sibling present and it is difficult to tell which child said what.” Audio issues were particularly problematic for speech-language pathologists. Participant 495 explained, “The biggest challenge has been doing the speech articulation evaluations online due to the need to clearly hear the sounds the children are making.” Visual difficulties occurred when families did not keep children in view on the camera. For example, Participant 470 said the challenges were “not getting a clear picture of child due to placement of phone/computer.” Participant 486 elaborated that “parents may have the video on themselves or at the wall even after prompting to have the child in the screen.” When the child was not on camera, it made it difficult for the professional to observe items and score the assessment.

Engagement: A third challenge related to technology was that children, families, and sometimes professionals had difficulties staying engaged when conducting the evaluation remotely. Participant 585 shared that “some children are very distracted by the computer screen.” Participant 580 noted, “Families and providers’ attention spans on Zoom is decreased which impacts the reliability of results.” Some participants noted that children were less engaged or willing in remote evaluations, such as participant 558 who said, “Virtual assessments can limit the child’s ability to cooperate.” Participant 584 explained, “The minute the child realizes they are on camera they shut down.”

Efficiency: A positive aspect of the use of technology during remote initial evaluations was the efficiency of the evaluation. As participant 1229 explained, there was “no downtime for driving to the family’s home; no lost time if the family is a no-show.” Participant 111 echoed various personnel who shared, “We do not need as much time as in person” Many professionals also noted the efficiency of writing their evaluation reports immediately following the evaluation. Participant 1488 described, “Since we are all working from home, we are able to write our evaluation reports right away most of the time. It is easier to write a more thorough and detailed report when you have the time to write it immediately after the evaluation.”

Another example was Participant 1313 who said, “Previously scoring would need to be input after the evaluation and could take a few days to a week depending on scheduling availability.” Professionals have 45 days from the day of referral to evaluate a child and determine their eligibility for early intervention or preschool special education services (Barger et al., 2018). A positive outcome of greater efficiency with remote evaluations was that, as Participant 1513 said, “Children with needs are being identified sooner.”

Tools. The second theme for remote evaluations included codes related to the use of assessment tools. The use of certain tools during virtual initial evaluations posed challenges for some and an opportunity for others to utilize additional information gathering techniques:

Online tools less thorough: First, some participants noted that they were using assessment tools that could be utilized online but were new to them and did not seem as thorough as the tools they used in person. For example, Participant 1540 said, “Available tools used online do not have as many items as others we’ve used in person, so it doesn’t feel like our evals are as thorough as they have been with other assessment tools.” Personnel who shared this perspective worried about getting a complete and accurate picture of the child’s development, making eligibility determination decisions more difficult. Participant 533 stated that they were “using an alternate tool that is not as effective or accurate to get them to qualify.”

Tools for speech and motor skills: Related service personnel noted particular issues using standardized assessment tools remotely. For example, Participant 414, a speech-language pathologist (SLP), said that assessing language skills virtually with children older than 3 years old but with language skills below 4 years old was difficult, given available tools: “Normally
these children would be administered a test with a combination of pictures and manipulatives, but that is too difficult/time consuming to do online in the allotted time.” Participant 594, another SLP, explained, “I have also not yet found a valid way to administer standardized receptive language assessments virtually, and for kids who aren’t clearly eligible it can at times feel hard to make a judgment call without have that standardized information to support my decision.” Occupational therapists and physical therapists noted that the standardized tools they used to test motor skills did not work well over the virtual format. Participant 487 shared that it was a challenge not to “physically touch the children, to feel for abnormal muscle tone, and range of motion.” Participant 532 stated, “Online evaluations are very difficult particularly with standardized tools. It is difficult to assess muscle tone, strength, reflex integration and other visual motor or motor skills from an online platform.”

Tools for behavior, social skills, and autism spectrum disorder: Professionals explained that remote assessment tools were also challenging to use when assessing behavioral skills, determining children’s social development, and evaluating for autism spectrum disorder (ASD). Participants noted that they may be missing the observation of challenging behaviors and social skills over remote video sessions. For example, Participant 394 said, “You miss so many subtle nonverbals and social skills you’d see in a home by observing.” Some professionals described the difficulty of evaluating for ASD remotely because they could not see certain behaviors. For instance, Participant 566 said, “It is hard to pick up on autism spectrum concerns unless they are very blatant” and Participant 763 shared that “it’s difficult to make an ASD determination in an online format.”

Variety of information gathering approaches: Some professionals described the positive use of new and more informal assessment procedures during remote initial evaluations. For example, Participant 1705 shared, “We are able to gather a lot of information using a variety of means and sources to get the best picture of the child’s areas of strength and need. Dropping the evaluation kit boxes of materials on the family’s porches has been helpful.” Other professionals shared that they asked families to send them videos and then used those to obtain information about children’s skills in natural routines. Participant 876 noted, “I’m using videos that parents send me to assess different skills (running, eating, playing, making sounds/talking, etc.).” Participant 1206 said,

> We as a team have collaborated on using different assessments, using more informal assessments and clinical judgment and looking into the practicality of daily routines. We have dropped off materials before an initial intake for parents to have ready or to have completed before our virtual assessment.

Several professionals noted that offering less formal assessment approaches and use of clinical opinion resulted in more services for children and families. Participant 1076 explained, “We are able to offer services to more families now that we are allowed to determine eligibility based on clinical opinion and not just scores. We can support more families with behavioral and emotional concerns.”

Families. The second theme for remote evaluations involved codes associated with working with families. Personnel reported difficulties and positive aspects of engaging families in the initial evaluation during the remote initial evaluation:

Coaching families: First, professionals noted the difficulties of coaching the families to administer the assessment remotely. For instance, Participant 611 stated, “It is sometimes hard to explain to the families what we need to see. I am just more hands on and would like to be able to show families what to do instead of tell them.” Certain items were particularly hard to explain. Participant 663 said there was “difficulty inherent in guiding caregivers to administer some tests such as moving an item across a baby’s field of view slowly or quickly.”
Other professionals noted that the use of remote evaluations gave them an opportunity to improve their coaching of families. Participant 926 described that “staff have increased their skill set and have become more creative with their use of tools, models etc. Family coaching is working!” Participant 862 shared, “I feel like we have gotten good at rewording and clarifying our questions to parents since we don’t have the advantage of direct interaction and modeling! And I feel like we make a good effort to be as personable and encouraging ‘virtually’ as we are in person.”

Violation of standardized procedures: Instead of personnel directly assessing children’s skills during remote evaluations, they relied on families to administer assessment items over synchronous video sessions. Professionals worried that their reliance on parents’ implementation of the assessment violated standardized procedures. Participant 729 explained, “It is difficult to have parents administer certain test items exactly how they are supposed to be administered.” In addition to doing the test item incorrectly, professionals like Participant 621 were concerned that “sometimes the parents give too much help.” Another threat that professionals described to the standardization of remote evaluations, as Participant 410 noted, was families “not having needed toys/tools to complete the evaluation.”

Reliance on parent report: The remote evaluation structure meant that professionals relied heavily on parent report about how the child performed the skill or behavior. Many participants worried about the validity of the information gathered through parent report. Participant 1137 described, “Since we are all remote, we are not seeing as much what a child can or cannot do in person. Most of it is parent report. This can lead to under or over reporting.” Of concern was that some professionals appeared to doubt parents’ abilities to report on their child’s development accurately. For instance, Participant 417 shared, “Some parents are poor reporters. Some overestimate a child’s functioning. Some overreport a child’s problems, when you can see or hear the child saying or doing things.” Participant 416 further explained, “For example, the parent might report that the child can and will point to and label pictures in a book, but after many tries to get the child to label something, they have not.”

On the contrary, several professionals reported reliance on families as a positive aspect of remote initial evaluations. Although there were not as many positive statements about relying on families as the concerns, these participants appeared to use the reliance on parent report as an opportunity to get more meaningful information from families, practice coaching, and include families more intentionally in the initial evaluation. Participant 74 described, “Because we rely more on parent report, parents are more involved and get the opportunity to speak more about their child’s functioning, likes, routines, as compared to evaluators administering directly to the child and asking parent fewer questions.”

Family-centered practices: Another positive aspect of remote evaluations was the use of more family-centered practices, such as an initial parent interview about family routines and scheduling the initial evaluation in a way that worked for the family. Participant 1026 shared, “The part I like the best and think I will continue past COVID is the first meeting with parents online.” Participant 1068 explained that the virtual interview allowed them to “dig deeper into a family’s routines and concerns.” Regarding more family-centered scheduling, Participant 1288 shared, “It is more family friendly to meet online on their time versus scheduling a long meeting during the workday at our program building.” Participant 1718 elaborated, “I think in some ways it is easier for families to not have to come to us. There are no transportation constraints, daycare needs for younger siblings, etc.”

In-person evaluations. For in-person evaluations, themes related to (a) health and safety and (b) observing children.
Health and safety. There were two codes related to health and safety during in-person evaluations:

Health and safety concerns: First, some personnel reported concerns about their health and safety during in-person evaluations because they worried about the risk of getting the COVID-19 virus. For example, Participant 1284 explained, “I am very concerned about safety and don’t feel safe.” Participant 875 shared “great concern regarding the safety of doing evaluations in the home without another staff member present for liability concerns, and that families are not following COVID-19 safety protocols which will ensure my health and safety.”

Health and safety protocols: When health and safety protocols were in place, such as masks, plexiglass, and other public health mitigation strategies, they were both challenges and sources of safety for personnel completing in-person initial evaluations. First, many professionals worried about the negative impact of health and safety procedures on relationship building, involving families in the evaluation, and the accuracy of the evaluation. For instance, Participant 1318 explained, “We complete them in person, but it is hard to understand young children with a mask on, and they do not always understand us. Facial expressions are lost on both sides. This impacts rapport and interpretation of social interactions/cognition.” Restrictions on who could attend in-person initial evaluations were another challenge related to health and safety protocols. For example, Participant 1293 explained, “We have a current policy where only one caregiver is allowed to accompany the child to the evaluation to minimize the spread of COVID-19, but this is difficult when trying to involve the whole family.” Other participants noted regulations prohibiting any family member from attending the in-person initial evaluation.

On the contrary, several professionals noted that health and safety protocols kept them, children, and families safe and allowed in-person evaluations to continue during the pandemic. For instance, Participant 803 said,

Families and therapists are willing to take precautions to allow for in-person evaluations and home visits. We have a system in place to allow for physical distancing, limited traffic in our building, temperature checks, COVID checklist and PPE available for families and therapist (disposable masks, hand sanitizer, time to clean in between appointments).

Many professionals described other ways they utilized health and safety measures to limit their direct contact with children and families and ensure that in-person evaluations were safe. Participant 1016 described that “the adult meetings are conducted through Zoom sessions and the child-focused evaluations/observations are conducted with temp checks, masks, plexiglass shields, and social distancing. Items and rooms are cleaned after each evaluation.” Participant 941 shared that “often the weather allows outdoor evaluations so that, with distancing in place, it is safe to remove masks for portions of the assessment (particularly helpful for speech articulation assessments).”

Observing children. While professionals conducting in-person evaluations noted the benefits of being able to directly observe children, observations of children in preschool and child care environments were often not possible during the pandemic. Participant 1293 explained,

It is a bit challenging because we are completing most of the evaluations in our office building where we can control the cleaning process in between evaluations. We used to conduct most of our evaluations in the home or child’s natural environment. Without seeing them in their natural environment it’s harder to see the whole picture of their skills in action.
Participant 1007 said that the challenge was “not being able to observe children among same-age peers, either in one of our own classrooms, or if they’re in preschool, in their own preschool classroom. Those observations are incredibly valuable to us.” Participant 1187 described that “sometimes observations are challenging as daycares/classrooms frequently close due to COVID exposure.”

**Remote and in-person evaluations.** There was one theme that applied to both remote and in-person evaluations.

**Scheduling.** Scheduling was a challenge for professionals conducting any kind of initial evaluation during the pandemic. Participant 1227 said, “Because of the district not performing evaluations during the spring and summer of 2020, we have missed 90 deadlines and continue to get an influx of referrals. This means that we are backed up and trying to play catch up.” Some personnel reported extra scheduling challenges for remote evaluations. Participant 1450 explained that the difficulty was the “extra setup and communication needed for the virtual format.” Participant 1026 shared, “Being completely virtual is hard with paperwork. We have to wait for parents to e-sign documents. We have to set up several zoom calls and notify everyone.”

An issue for personnel scheduling in-person evaluations was frequent cancelations due to the child, family member, or personnel being ill or quarantined. Participants 1536 and 1227 explained that their challenge was “families who are quarantined when evaluations are scheduled (we schedule in the future),” and “having team members quarantined when evaluations have been scheduled.” Another challenge for scheduling in-person evaluations involved finding a space for the evaluation. Participant 918 explained that there was “not enough space/time to complete the evals as we are limited on number of adults/children we can have in the buildings and set up time and cleaning time between evals.”

**Discussion**

This study contributes to emerging research on the impact of the COVID-19 pandemic on early intervention and preschool systems of service delivery. Furthermore, study findings extend the limited research available on practices used during initial evaluations for young children; implications for future research, practice, and policy are presented.

**Disruptions to Initial Evaluations During the Pandemic**

Our findings indicated that approximately 51% of respondents paused initial evaluations at some point between the spring and fall of 2020, with most pauses occurring during the spring of 2020. The amount and timing of pauses make sense given program closures amid state at home (SAH) orders in 46 U.S. states in the spring of 2020 that were then lifted in the summer and fall of 2020. Nineteen states in the United States suspended early intervention services in the spring of 2020 that likely also included initial evaluations. Our study findings add to the emerging literature base regarding the negative impact of the pandemic on timely initial evaluations in early intervention and preschool special education (Masterton et al., 2021; Roberts et al., 2022).

**Changes to Initial Evaluations During the Pandemic**

Personnel described various changes to initial evaluations during the pandemic, including having each professional do their own part of the evaluation and then meet later, completing the evaluation in short chunks instead of one session, using different tools, having one professional conduct the evaluation instead of the team, and moving initial evaluations to a remote format. For those
conducting the evaluation in person, additional changes to the process included the use of masks and cleaning procedures. The limited professional guidance about how to conduct initial evaluations during the pandemic and the differences in public health mitigation approaches across and within states may have contributed to the widespread variability in whether and how initial evaluation teams made changes to the initial evaluation process.

Qualitative analyses added nuance to quantitative findings and a more complete picture about personnel’s experiences changing initial evaluations for remote and in-person modes. Overall, those conducting remote evaluations struggled with the large shift involved in conducting the initial evaluation over synchronous video sessions instead of in person as they were accustomed. Professionals reported a lack of technology hardware for themselves, internet issues for families, and difficulty keeping children engaged in the assessment over the computer screen. These technology challenges were noted in other research that included early intervention and preschool special education personnel during the pandemic (e.g., Steed et al., 2021). This study extended other findings about remote service delivery during the pandemic by highlighting particular challenges for remote evaluations, including using unfamiliar assessment tools and relying on families to carry out the assessment. Professionals also commented on the positive impact of a more efficient initial evaluation, online scoring, and being able to obtain more information and involvement from families. Other pandemic research has found that professionals described providing remote early intervention services as a difficult challenge that also included positive opportunities for increased family engagement (Roberts et al., 2022).

**Changes for early intervention versus preschool special education.** The percentage of personnel who conducted remote initial evaluations was higher for those conducting initial evaluations for early intervention when compared to evaluations for preschool special education. Many states instituted the approval of early intervention telehealth in the days after the stay-at-home orders in the spring of 2020 (Roberts et al., 2022); this approval may have resulted in more structures and expectations in place for early intervention personnel to utilize remote initial evaluations. In addition to doing more remote initial evaluations, early intervention personnel made more changes to their initial evaluations and were more likely to check in with families about how they were affected by the pandemic.

Professionals conducting initial evaluations for preschool special education made changes like chunking the evaluation and having each professional do their part of the evaluation and meeting later; the latter of which is counter to typical recommendations for teaming during evaluations (DEC, 2014). These findings relate to other research showing that classroom-focused early childhood personnel reported challenges adjusting to alternative and family-centered approaches for children with disabilities during the pandemic (Steed et al., 2021). Early intervention personnel may have utilized more family-centered approaches and teaming during the pandemic, given their work that emphasized these characteristics pre-pandemic.

**Reliability and Validity of Information Gathered**

Professionals shared concerns about the thoroughness, reliability, and validity of information gathered during the pandemic that made decisions about eligibility for early intervention and preschool special education more difficult. One particular challenge was the use of different, remote assessment tools than what they had utilized for in-person initial evaluations pre-pandemic. Professionals noted that the different tools had fewer items than the instruments they were used to, leading to a less comprehensive evaluation and less information to use when making an eligibility determination. Related service personnel in particular described challenges using standardized assessment tools over synchronous video sessions.
Another difficulty of pandemic initial evaluations that negatively impacted the reliability and validity of information gathered was that personnel at times could not see the child in the screen, hear speech sounds through masks, or observe in child care or preschool settings. There is evidence that, even prepandemic, some initial evaluation teams struggled with gathering accurate and complete information due to logistical barriers (e.g., Steed & Stein, 2021). Gathering information about children’s social skills in natural settings and in relationships with family members and peers is important to understand the child’s use of skills. It may be necessary for initial evaluation professionals to consider alternative ways of gathering information from children’s family members and teachers, such as asking for videos and observation notes when in-person observations are not possible.

Given the lack of opportunities to observe children’s skills directly during the pandemic, professionals relied on parent report, with some sharing concern about the reliability of the information parents provided. Professionals’ concerns about the accuracy and knowledge of parental report point to a persistent issue in the field wherein professionals’ perspectives about children’s development are valued as more accurate and reliable than parents’ perspectives (e.g., Pearson & Meadan, 2018). This is problematic as it ignores other explanations for differences in professional and parent developmental ratings, such as divergent cultural interpretations of development, that the family has spent more time across settings with the child, and teacher same-gender preferences (Berg-Nielsen et al., 2012). Furthermore, research has shown that professionals hold possible implicit biases about families of color that skew their perceptions, especially regarding their ratings of their behavior and social competence of Black children (Munzer et al., 2018). The reliance on parent report during the pandemic and some professionals’ devaluation of that input may have yielded less accurate eligibility determination and exacerbated inequities in access to services for traditionally marginalized families.

Family Involvement

Families appeared more involved in remote initial evaluations conducted during the pandemic. The nature of remote evaluations, due to the reliance on the family to facilitate the evaluation in their home, may promote family involvement. In some cases, in-person initial evaluations may have utilized fewer family-centered approaches, given the need to wear masks, socially distance, and limit family members’ attendance. It appears that professionals were weighing and responding to competing priorities around health and safety, the use of technology, and family-centered practices (Cate et al., 2020). It is concerning that family-centered practices would be sidelined during the pandemic, given the importance of involving families in the initial evaluation to get accurate information.

In some cases, participants revealed a lack of recommended family-centered practices prepandemic, such as requiring the use of certain toys and materials for the assessment as opposed to using materials in the home that the child was familiar with and not engaging in a pre-evaluation meeting with families. This study adds to a small literature base indicating that professionals underutilize family-centered practices during initial evaluations for early intervention and preschool special education (Craiss et al., 2006; Steed & Stein, 2021). More research is needed to identify barriers and systems-level supports that increase professionals’ use of family-centered evaluation practices.

Limitations

This study has methodological limitations. Given the lack of an existing survey, the authors developed a survey, piloted it, and incorporated feedback specific to the research questions posed. The timing of the survey was important for documenting personnel’s initial evaluation
practices for nearly a year into the U.S. response to the pandemic. However, it is also important to interpret the findings as they relate to this unique time in the pandemic when some adults were offered COVID-19 vaccines, some districts were open to in-person learning and some were not, and PPE was required in some communities and not in others. Respondents may have answered questions differently if this survey was administered later in the 2021 year or in 2022 when more U.S.-based adults were vaccinated and public health measures had relaxed across communities.

The present study aimed to sample Child Find providers throughout the United States to learn about how the COVID-19 pandemic affected their work. Despite this aim, there are limitations with the representativeness of the sample. Response rates were variable across different states and regions. Given that states have different processes and procedures related to early intervention and preschool special education and different pandemic-related procedures, this is a limitation. Nonetheless, we did gather responses from most U.S. states, had representation from each divisional geographic region, and ended up with a robust sample size. Our sample, like the early childhood field as a whole (Bureau of Labor Statistics & U.S. Department of Labor, 2018), was primarily White and female. Therefore, there are limits to the generalizability of our findings across all states and demographics.

**Future Research**

Future research might focus on families’ perspectives of the initial evaluation process during the pandemic and what remote or in-person approaches they preferred. It would be important to better understand whether initial evaluation teams not only used family-centered practices but also employed culturally responsive assessment approaches, such as administering the assessment in the child’s first language and gathering information from families about language use and acculturation. Future studies could explore how personnel make decisions about their use of recommended practices, such as involving families and observing children in natural settings. Other factors such as state-level policies about assessment instruments to determine eligibility, team membership, and professional caseloads could be analyzed for how they influence childhood professionals’ use of recommended evaluation practices. Finally, it would be informative to understand how pandemic-related early childhood staffing shortages may be affecting initial evaluations and classroom placement following eligibility decision-making.

**Implications for Practice and Policy**

Study findings suggest various implications for practice and policy related to how initial evaluations are conducted. First, administrators overseeing initial evaluations for early intervention and preschool special education should consider keeping some of the pandemic-related changes that supported family involvement and the gathering of rich, contextual information about children, such as using more authentic data collection approaches. The benefits of using authentic assessment methods in conjunction with standardized tools are that they are developmentally appropriate, accurate, functional, and strengths based, especially for children with disabilities, and can be used for writing children’s goals and planning instruction (de Sam Lazaro, 2017). Increasingly utilizing authentic assessments is not to be confused with relying more heavily on clinical opinion; the latter of which may harm children of color, given professionals’ potential implicit biases about families of color and other marginalized groups (Munzer et al., 2018). Professionals may need support to value family-provided information that is collected in the context of authentic and multi-informant assessments, especially when parent report digresses from professionals’ observations.

The second implication of study findings for practice and policy is that some aspects that were adopted during remote evaluations should be kept, such as online scoring and virtual meetings.
with families before the evaluation that improved efficiency. It is possible that offering choices or combinations of remote and in-person approaches will allow teams to maximize the benefits of each approach, utilize diverse professionals on the team, and provide initial evaluations to families who would have difficulty meeting in person.

Finally, a practice and policy implication of the study is that early intervention and preschool special education personnel may need professional development on coaching strategies to use to support family involvement in assessments. Many professionals appeared used to conducting child-focused initial evaluations rather than coaching families to play with their child or see whether they could exhibit a skill. While coaching appears in the extant early childhood literature, it has been understudied in the context of assessment and evaluation. Additional guidance is needed for how early intervention, preschool special educators, and related service personnel who conduct initial evaluations can coach families during the initial evaluation.

**Conclusion**

This study extends the special education pandemic research by illuminating how the pandemic affected referrals and initial evaluation practices in early intervention and preschool special education systems of service delivery. There were various challenges and positive aspects associated with continuing to conduct initial evaluations with young children and their families during a public health crisis. Study findings highlight tensions between ensuring the health and safety of children, families, and professionals and maintaining recommended evaluation practices, such as using family-centered assessment practices and conducting assessments in natural settings. We can take the lessons learned during the pandemic to enhance how initial evaluations are conducted and meet the critical need to identify young children with delays and disabilities.

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**Supplemental Material**

Supplemental material for this article is available online.

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