Research Article



Early Childhood Educators' Perspectives on the Impact of COVID-19 on Child Care

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Abstract: Recent research documents early care and education (ECE) changes that occurred at the program level (e.g., staffing, enrollment) due to state policies enacted in response to the COVID-19 pandemic; however, less is known about how practices and instruction at classroom level changed. Our study sought to explore ECE educators' perceptions of how state policies and the pandemic influenced their daily practice and instruction during the pandemic. We conducted in-depth interviews with 12 ECE educators (6 center-based and 6 home-based) selected from a larger survey study from a mid-Atlantic state. Findings revealed there were: 1) significant disruptions with daily routines, family and child interactions, and child assessments; 2) extensive changes in materials used, the room/setting, and instruction; and 3) challenges beyond the classroom such as financial stress, and educator well-being. Results from our study can help inform professional learning experiences and ECE system leaders on where challenges with instruction exist and how the pandemic may have changed educator practices.

Keywords: early childhood education (ECE), COVID-19, child care, family child care, center-based care

1. Introduction

Decades of research show several key aspects of early care and education (ECE) that support children's development and learning including the overall care environment, teacher-child interactions, and daily experiences and activities (National Association for the Education of Young Children, 2020). Research has also related perceived ECE workplace stress (Whitaker et al., 2015), educator personal well-being (Jennings, 2015), and depressive symptoms (Johnson et al., 2019) with adverse interactions with children and child learning (Buettner et al., 2016). Those in the ECE workforce often face working conditions that are less than ideal for well-being such as low pay, lack of benefits, insufficient resources, suboptimal physical environments, and high job demands (Farewell et al., 2022; Kwon et al., 2020). The pandemic further exacerbated these conditions; Swigonski and colleagues (2021) noted that approximately 25% of educators felt that the pandemic had decreased the overall rating of their physical health and 3 in 5 educators reported that the pandemic had negatively affected their mental well-being. It is also likely that state and local policies issued in response to the COVID-19 pandemic altered ECE environments, teacher-child interactions, and activities.

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2. Literature review

2.1 The impact of COVID-19 on the early care and education sector

Forty states issued stay-at-home orders that required most United States education programs to close or move to virtual learning (Ali et al., 2021). During this period 33 states allowed ECE educators to remain open, while 16 states and the District of Columbia only allowed ECE educators to serve children of essential workers (Ali et al., 2021; Department of Health and Human Services, 2020). ECE educators who continued to operate did so without much support or resources (Weiland et al., 2021).

Following COVID-19 recommendation issued by the Center for Disease Control and Prevention (CDC) agencies serving children, youth and families in many states issued mandatory practice changes and new guidelines. These CDC recommendations resulted in significant changes to ECE daily operations. For example, in Delaware, ECE programs were required to suspend sensory play materials, change drop off/pick up location, add additional cleaning and screening processes (e.g., temperature checks, health history form), and reduce the number of children in their care (Delaware Department of Service for Children, Youth & Their Families, 2020). In New Jersey, guidelines strictly limited close person-to-person contact such as hugging and games that involved touching, and recommended cancelling or modifying activities that brought children into close or direct contact (New Jersey Department of Children and Families, 2020).

The state issued recommendations likely caused changes within programs; however, the perceived impact of the changes is not fully understood. In emerging body of research on COVID-19 impacts on the ECE sector, prior studies have focused on program- and workforce-level responses to the pandemic (Barnett et al., 2020; Weiland et al., 2021). Classroom level information such as daily routines, instructional practices, setting, and materials has rarely been reported.

2.2 Family child care and center-based early care and education programs

Researchers have started to examine the effects of COVID-19 among different ECE program types. The primary ECE programs are family child care (FCC)-care provided in the educator's own home, and center-based care (CBC)-public or private group care provided outside the home. Across program types, researchers have noted that programs that continued to operate during the pandemic faced decreased enrollment, reduced income, and higher operating costs (Crawford et al., 2021).

Kim and colleagues (2022) provide one of the only studies that examines COVID-19 outcomes for both FCC and CBC sites in California. They find that FCC educators fared worse in most measures of economic well-being (unable to pay bills, took out a second mortgage, increased credit card debt), though these programs were more likely to be open during the early part of the pandemic. For CBC educators, major challenges included lower attendance rates for children, which resulted in a loss of income, and concerns with meeting health and safety guidelines that limited child and staff numbers. Financial concerns led to staffing layoffs, furloughs, and reduced work hours (Kim et al., 2022). Interestingly, Kim and colleagues also found that among CBC programs, centers that received stable public funding (e.g., Head Start, state preschool programs) were less likely to be negatively impacted by COVID-19 and were also more likely to pay salaries and provide benefits to their staff.

2.3 Early care and education workforce well-being

The ECE workforce faced many challenges during the COVID-19 pandemic. In Louisiana 44% of sites reported that they were not paying their staff (Bassok et al., 2020). In New York, reduced income was identified as a source of stress for 49% of ECE survey respondents (Nagasawa & Tarrant, 2020). Kwon and colleagues (2020) found that regardless of teaching modality, educators reported limited resources and a lack of clear guidelines as challenges. Those working in-person noted challenges in teaching and interacting with children and families, fears about COVID-19 infection, and increased job demands (Crawford et al., 2021). For those teaching online, availability of and access to technology, and concerns about connecting with children were major challenges (Ford et al., 2021). In both quantitative and qualitative studies, ECE educators reported perceived higher levels of stress, which is related to reduced educator well-being and burnout during the pandemic (Quinn et al., 2022; Souto-Manning & Melvin, 2022).

2.4 Present study

Overall, literature about the COVID-19 pandemic in ECE documents the various challenges educators have faced related to modality, policy changes, well-being, and work demands. In this study, we contribute and fill a research gap by adding ECE educators' perspectives on the impact of COVID-19 on their practice. Specifically, we explore the perceived impact of the pandemic on daily routines, instructional practice, and additional challenges educators experienced beyond their practice. Our research questions were twofold: 1) What perceived impact did the COVID-19 pandemic have in terms of daily routine, instructional practice, and assessment in childcare settings? And 2) What kinds of challenges beyond the daily operations did childcare educators experience during the early stages of the pandemic?

3. Methods

3.1 Sample

Table 1. 1 articipant characteristics		
Characteristics	N (N = 12)	%
Age		
30-39	3	25.0
40-49	2	16.7
50-59	3	25.0
60-69	4	33.3
Racial/ethnic identification		
Black or African American	7	58.3
White	5	41.7
Highest education level		
High school diploma or GED equivalate	2	16.7
AA degree or some college credits	5	41.7
Bachelor's degree	4	33.3
Graduate degree	1	8.3
Years of teaching experience		
11-15 years	2	16.7
16-20 years	6	50.0
21-25 years	2	16.7
25+ years	2	16.7
Provider care type		
Center-Based Care (CBC)	6	50.0
Family-Child Care (FCC)	6	50.0

Table 1. Participant Characteristics

This study was a part of a larger state funded survey of licensed ECE educators in a mid-Atlantic state to assess educators' experiences during the first year of the COVID-19 pandemic in 2020. After the state collected initial survey from 323 ECE educators, our study was followed by 12 child care providers for an in-depth interview study. The present sample was selected from survey respondents who indicated interest in a follow-up interview and remained open during the pandemic. Upon an approval from our Institutional Review Board (IRB), recruitment emails were sent to those who met the criteria (53 FCC and 56 CBC educators). A total of 12 (six CBC, six FCC) educators participated in our study. All participants in our sample identified as female, and a majority had over 16 years of experience in ECE, and had less than a college degree. Participant demographic information is described in Table 1.

3.2 Data collection

This qualitative study was based on semi-structured interviews with 12 ECE educators to learn about their experience during the pandemic. Interviews were conducted virtually via Zoom between August and September 2021, and on average lasted approximately 30 minutes. Interviews were recorded with participant permission and transcribed verbatim.

Interview questions were divided into four main topics-basic demographic information, curriculum and practice, online/virtual experience, and general practice (communication methods, staff meetings, assessments). For instance, to understand curriculum and practice we asked interviewees to explain their daily schedule before and during the pandemic and asked what changes, if any, occurred to their lesson planning. To assess virtual instruction participation we asked, did you teach in the virtual format? For those who affirmed virtual instruction experience we asked probing questions about their virtual teaching experience to solicit a more complete answer (e.g., Can you walk me through your virtual teaching experience? Babbie, 2021). The use of open-ended questions prompted sharing of personal information and allowed for more intimate information and understanding about the direct experiences of each educator enrolled in the study. Three pilot interviews were conducted before finalizing the interview protocol.

3.3 Data analysis

The interview transcripts were analyzed by two members of the research team using an inductive approach with intent to understand educator experiences during the early months of the pandemic. Though this study is limited by its reliance on self-report data, the approach used is appropriate given the intention to understand how educators perceive and understand their experiences as ECE educators (Babbie, 2021). An iterative open coding approach was used to code and analyze interview transcription data. This process was informed by theoretical codes drawn from relevant research. The two researchers first independently read the open-ended responses to familiarize themselves with the data and then reread responses with the intent to identify broad and sub themes. This process continued until all broad and sub themes were identified and the codebook was created. A third researcher reviewed the broad and sub themes to verify the coding schemes.

The research team used the codebook to consistently analyze the open-ended responses (McAlister et al., 2017). Transcript coding was done using Dedoose qualitative coding software (Silver & Lewins, 2014) and each transcript was coded line-by-line by one researcher and then coding was reviewed by a second researcher. Line-by-line coding diminishes the chance that the coding is influenced by the researcher's own motives, values, or assumptions about the data (Charmaz, 2008). The process of consensus was employed throughout code development and data analysis which required agreement among the research team on code definitions, interpretation, and findings (Hill et al., 2005). During this code development process, researchers looked for negative cases- data that do not fit the coding scheme (Marshall & Rossman, 2016). Further, the researchers maintained an audit trail of all research related activities and raw data such as analytic memos, video recordings, coding changes, negative cases, and code book (Marshall & Rossman, 2016). To increase the credibility of the analysis, we used peer debriefing, member checking during the pilot interview, triangulation, and negative case analysis.

3.4 Coding process

Our coding process identified three major themes-daily routines, instructional change, and challenges beyond

classroom. Sub themes also emerged within each major theme. Figure 1 displays the major themes and subthemes. In Table 2 we provide an overview of our coding process based on themes that emerged from the interviews. Coded data were also examined to note differences and similarities in educator responses according to programs context.

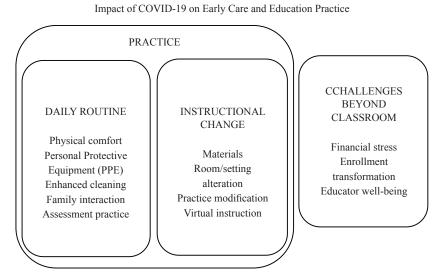


Figure 1. Overview of Emerged Coding Themes

Table 2. Coding themes and descriptions	Table 2.	Coding themes	and descriptions
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Theme	Description	
Daily Routine		
Physical comfort	Physical interactions between educator-child and child-child such as hugs or close physical contact	
Personal Protective Equipment (PPE)	Using PPE (i.e., masks), enhanced cleaning procedures, or temperature checks	
Family interaction	Parent involvement and communication and when educators mentioned interactions with children and families such as drop-off and pick-up	
Assessment practice	Interviewee discussed whether their assessment process changed as a result of the pandemic	
Instructional Change		
Instructional materials	Removing or changing children's access to material such as art supplies, sensory play, dramatic play props	
Room-setting alterations	Physical changes made to the childcare room(s) or care setting (e.g., indoor, outdoor)	
Practice modification	Interviewee discussed how practice was changed in response to the pandemic	
Virtual instruction	Using virtual platforms for instruction purposes	
Challenges Beyond Classroom		
Financial stress	Financial challenges experienced during the pandemic	
Enrollment transformation	Decreases or increases in enrollment of demand for care	
Personal well-being	Personal or their family's physical or mental health or safety	

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4. Results

The purpose of our qualitative study was to understand educators' perceived impact of the COVID-19 pandemic and state emergency guidelines on their practice. Thus, we focused on ways educators' experienced classroom level changes.

4.1 Daily routines

Daily routines such as drop-off and pick-up were changed to accommodate state mandated requirements for personal protection equipment, temperature checks, and social distancing. Likewise, state licensing requirements that required increased sanitizing and handwashing also impacted daily routines. Personal interactions shifted from daily physical contact to minimal contact between educators and children and between children. These changes were perceived by educators to have a direct impact on their daily interactions with children and families, and on children's peer interactions.

4.1.1 Physical comfort

FCC and CBC educators mentioned that their physical interactions with children decreased and shifted to new forms of physical contact due to the social distancing guidelines. Overall, educators in this study reported having less physical contact with children. Educators spoke about less physical contact or touching between themselves and the children. The reduced physical contact and the inability to provide their typical level of comfort to children created a personal internal struggle for both CBC and FCC educators. A CBC educator in a 3-year-old classroom shared, "*They're 3, they don't understand that you can't really give them that love and attention. Don't even know how to give them that affection, where I can't touch.*" Educators also discussed their internal struggle with social distancing. A CBC educator shared, "*In COVID-19 it's hard because you can't really like give them the contact*" and an FCC stated "We can't really hug anymore. We have to keep our distance."

In place of physical hugs between themselves and the children, educators reported creating alternative forms of interactions and ways to incorporate minimal physical contact using air hugs, high fives, virtual hugs, I love you sign language, elbow taps, and pound-its. Even with these adaptations, educators discussed the emotional difficulty of not being able to physically comfort children. An FCC educator shared,

"I've not been able to be as nurturing as I was before...I was more huggin' you know, like my arms were open more...I almost feel like sometimes I'm off limits...I feel like I had to pull back because I want to model being able to interact, but at the same time trying to keep my distance".

The social distancing requirement also changed children's peer interactions. Both FCC and CBC educators mentioned that the social distancing requirement separated children preventing them from interacting closely with one another. An FCC educator discussed how the children in her care were no longer allowed to touch each other. Another FCC educator discussed how social distancing required her reduced the number of children she allowed to play together in the dramatic play area; she reduced the number from four children to one or two children.

Several CBC educators discussed children missing interaction between partner classrooms during playground time and "camping outside together in the big room." While FCC providers mentioned missing interactions with others during community fieldtrips. Educators also mentioned that the type of play changed, a CBC educator shared, "In my classroom if the kids was playin' they played by themselves, you know, like solo play." Educators also mentioned that play shifted from group play to individual play. Another CBC educator shared, "We had to think of other creative ways so they can play individually." Likewise, an FCC educator shared a similar experience of changing to solo play, "As far as like games and things where they would play together, we had to quit that."

4.1.2 Personal protection equipment

All 12 educators reported challenges with personal protection equipment (PPE) such as masks falling off educators and children, temperature check requirements taking additional time, and difficulty maintaining social distancing

between themselves and the children and between children. Several educators discussed the challenges around reminding children to pull their masks up. An FCC educator shared, "We're constantly saying pull your mask up, pull your mask up." A CBC educator explained the difficulty in balancing the needs of the children with parental expectation that staff would always wear masks; she shared her experience of a parent reporting noncompliant mask wearing to administration without understanding why, "I had to take it down for a second because I have a special needs child that doesn't understand you with a mask but has to read your lips to follow directions."

4.1.3 Enhanced cleaning procedures

Both CBC and FCC educators reported increased handwashing and cleaning of surfaces and toys as a result of following state guidelines. Educators shared how enhanced cleaning and sanitizing posed multiple challenges; six educators discussed how the increase in the amount of time allotted to cleaning resulted in less time for planning and interacting with children. An FCC educator shared, "*I just scrub down everything. What normally would take me 30 minutes would take me an hour.*"

4.1.4 Family interaction

Our data suggest that patterns of family communication and engagement shifted in response to pandemic restrictions. Ten of 12 educators mentioned parents and visitors were no longer allowed to enter the premises which inhibited daily caregiver-family communication and altered drop-off and pick-up practices. Educators discussed how this change prohibited them from having daily in-person conversations with parents. A CBC educator stated, "*My administration talked to the parents*." Likewise, an FCC educator mentioned "Other educators maintained daily parent communication through class apps (e.g., ClassDojo) or text messaging. Educators also mentioned that parent support in class activities ceased as a result of the visitor restrictions. Not only was face-to-face communication disrupted between educators and families, but families were also cut off from networking with one another. For instance, a CBC educator shared, "*(Parents) pick up their children and leave with no communication with each other and no networking.*"

4.1.5 Assessment practice

A majority of educators reported that assessment was not their priority during the early months of the pandemic. Among the 12 educators, four reported having no assessment, and six reported doing less assessment. The four educators who abandoned assessment did so because either assessment held less importance. A CBC educator shared, *"Being together was more important than, than you know worrying about milestones."* Additionally, CBC educators mentioned they did not have support staff available to assist with the assessments. For instance, a CBC educator stated, *"We didn't do a whole lot of assessments because we didn't have a person to come in."*

The six educators who reduced their assessment mentioned that either their assessments were incomplete or they shifted what was assessed. For example, one FCC educator shared, "*It was more cognitive…but a lot of the physical I wasn't able to really snapshot.*" Some educators talked about adaptions they made to obtain assessments; one educator discussed her reliance on parents providing feedback and how she watched children during Zoom sessions to observe benchmarks.

4.2 Instructional change

Our data revealed practice changes also occurred with in instructional areas for both FCC and CBC educators. Most educators discussed adaptations and changes made to accommodate COVID-19 guidelines and protect themselves and the children from pathogen exposure. For example, an FCC educator shared, "*I use FunShine [curriculum], a lot of the stuff was not COVID-19 friendly so we had to improvise by doing different things.*" We further detail these changes in the sections below.

4.2.1 Materials

The types of instructional materials educators made available to children changed in response to the state

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guidelines. Ten educators mentioned removing materials that were hands on and not easily cleanable. Removed items included crayons, markers, scissors, books, dolls, dramatic play props (clothing, utensils, pots, pans, replica food), playdough, sand, water table, slime, stuffed toys, soft material items, and games. An FCC educator stated, "*I did take out some of the toys, because it was easier for me to clean because there's just so much cleaning*" And a CBC educator commented, "*We took away a lot of things in the classroom such as dress ups, stuffed animals, any sensory things, water play, sand play, playdough play.*"

Educators also shared that the change in available materials altered how they led activities. Activities that were hands on prior to COVID-19 became observation only such as group cooking. For example, a CBC educator shared, *"Because of COVID-19 we couldn't do that (share cooking utensils) because we couldn't really share utensils."*

Some educators that discussed material removal also spoke about the challenges created by removing materials that children were accustomed to using daily. Educators discussed the difficulty in explaining to the children why materials were removed. A CBC educator shared, "When you're teaching 3 year olds, they don't understand like I can't share my playdough with my friends or I can't share my sand with my friends." Educators also discussed how the removal of material affected the children. A CBC educator remarked "I think it was a little stressful for the children, because everything you know they couldn't do like the playdough, and the sand and water play and things like that, so it was a little discouraging to 'em." Further, the removal of materials resulted in changes to activity centers that created dilemmas with instructional practice for instance, removing writing instruments from the writing center. A CBC educator remarked "I they're just learning how to write and to draw so, how to do the writing center without those components." An FCC educator shared "I just had to take out stuff...if I didn't take it out they'd use it."

Some educators added materials to meet new needs such as outdoor toys, personal headphones, and a stationary bike. An FCC educator discussed that spending more time outside led her to purchase different types of outdoor toys which she felt increased the level of child-led outdoor activities compared with prior to the pandemic,

"We...purchased a lot more like riding toys and some of the dramatic play things that I didn't have outside. I ended up purchasing like little grill...so we would do a lot more play outside...we would also do our other dramatic play stuff out there too."

4.2.2 Room/setting alteration

We found that changes occurred within ECE rooms and settings to accommodate children's current needs, reduce exposure to COVID-19, maintain compliance with state mandates, and address educators' personal family member needs. These changes were discussed in terms of increasing outdoor time, expanding outdoor space, reconfiguring rooms to accommodate mixed age groups (e.g., school age and younger children), moving circle time, relocating furniture, or using a different room in the home to better accommodate children. Three FCC and three CBC educators stated that they increased the amount of time spent outdoors to reduce both the amount of cleaning required indoors and the risk of being infected with COVID-19. For instance, a CBC educator shared her rational for spending additional time, "*the information out there was you know it's less transmissible outdoors*." Educators who increased outdoor time also discussed using the outdoor space for science, art, dramatic play, physical activities, group games, and story time. One FCC educator shared, "*most stuff was done outside on my backyard or around a deck.*" Another FCC educator stated that she reviewed the curriculum each night to figure out how to shift inside activities outside.

A smaller group of FCC and CBC educators mentioned decreasing outside time due to restrictions or the inability to attend to children of varying ages. For instance, an FCC educator shared "*I couldn't leave the little ones out with the big ones in the house cause licensing say we all have to [be] out together*." Other educators stated they spent more time indoors to maintain a stronger sense of control over contracting COVID-19. One FCC educator shared "*we spent a lot more time indoors*...*I felt like inside was very safe*."

Educators discussed the need to reconfigure allocated indoor and outdoor space. One FCC educator discussed the need to partition her care space to accommodate school age children who were attending school virtually and remained in her care full-day while she also attended to younger children.

"I had to rearrange my whole [house]. Usually, the dining room is for daycare but during that time...I had to set up the dining room as the school for the school-agers, we have put...cardboard in-between each one so

they weren't near each other."

A CBC educator mentioned how her center used all available outdoor space,

"We did unitize our parking lot area. We would put cones up when school started and blocked the parking lot and then all of my, all of the children in the whole school had their own mat to sit on and anything we could do outside we did."

Some FCC educators also discussed sharing household space with family members, "before COVID-19...activities that require more space we would come out to my living room, but we actually kind of tailored back a lot because it was too distracting for my children who are trying to do school...my husband...was also working from home."

4.2.3 Practice modification

Educators mentioned that they modified their practice to adjust to state guidelines, and to ensure the safety of the children and themselves. All 12 educators discussed adapting lessons to fit COVID-19 restrictions. A CBC educator stated "We had to really think through each idea that we had as to whether or not it was feasible in a pandemic." Some educators modified morning circle time in accordance with the state guidelines. For instance, an FCC educator shared "In the mornings of course the meet and greet wasn't the same because everybody had to separate." One FCC educator discussed altering her curriculum to address the needs of the children,

"There was a lot of the social emotional piece...because the kids would actually talk about the virus and so like there was a lot of things that you could tell were on their mind with what was going on around them...we just focused on talking about our feelings and that it's okay to feel certain ways."

The uncertainty around how COVID-19 spread also led to practice changes. For instance, a CBC educator mentioned that the uncertainty of COVID-19 prompted her to eliminate class jobs that entailed items going home (e.g., story bag) and the use of items from home (e.g., show and tell).

4.2.4 Virtual instruction

Eight educators (four FCC; four CBC) reported using virtual instruction, however, virtual instruction varied by modality, implementation, and reason for use. Modality and implementation of virtual instruction varied from asynchronous activities (e.g., prerecorded stories or suggested activity links posted on a group Facebook page or Dojo App) to synchronous, interactive whole group Zoom activities (e.g., experiments, book reading, cooking). Our data suggest the decision to use virtual instruction was related to stay-at-home orders coupled with the desire to maintain relationships with children and families. For example, a CBC educator stated that they wanted to *"continue building those relationships and letting them know that even though I was now on the screen you know, um that I love them and I was there for them."* Three FCC educators who remained open for essential workers' children provided school aged children Zoom support for school-based instruction. One CBC educator reported using synchronous instruction as a means to reduce in-person class ratios.

Educators also discussed challenges with virtual instruction such as technical difficulties, appropriateness of online learning for young children, maintaining children's attention, consistent attendance, and stress associated with knowing behind each Zoom square was an adult. For some educators, the online format made it difficult to incorporate traditional activities. A CBC educator shared that *"some of our activities we couldn't really do with the kids because they were watching through a camera lens."* Other educators struggled with the developmental appropriateness of online instruction. Another CBC educator shared her sentiment towards online learning for children under age 3, *"I really don't believe in online instruction for young children. I don't believe that there's such a thing as online preschool."* FCC educators who supported school age children's virtual teaching reported that supervising online instruction disseminated by the child's elementary school increased their workload due to the new dynamic of supporting older children's virtual instruction while caring for the needs of younger children.

4.3 Challenges beyond the classroom

During the pandemic, educators faced unexpected challenges that extended beyond practice and instruction such as financial stress, enrollment transformation, and changes to their own mental health and physical well-being.

4.3.1 Financial stress

Educators reported that reduced income, increased supply costs, and lower- or no enrollment added financial stress to their lives. One FCC educator shared that the most difficult part about being a childcare educator during the pandemic was losing her income when only essential workers children were permitted to attend programs, "*I was open but none of my children were able to come because their parents were working from home*." Others discussed the stress of not receiving inquiries for care. Educators also mentioned that their supply costs increased. A CBC educator shared "*I find myself spending money replacing crayons, markers and paint brushes because constantly putting it in their mouth.*" Likewise, an FCC educator stated "supplies were ridiculous, paper towels went like I don't know um, toilet paper."

4.3.2 Enrollment transformation

Five FCC and five CBC educators discussed decreases and transformation in enrollment during the early months of the pandemic. CBC educators saw decreases in their class size but did not appear to feel the financial impact as profoundly as FCC educators. One FCC educator shared, "95% of my children ceased from coming...so, I was down to one child."

Enrollment also transformed to adapt to families' needs. For instance, FCC educators who normally served school age children in before and after care, and young children during the day pivoted to caring for both age groups simultaneously. These educators discussed the difficulty and stress in managing both age groups full-day due to differing meal schedules and splitting care time between age groups.

4.3.3 Educator well-being

Four FCC and four CBC educators discussed their personal well-being and their feelings (e.g., stress, anxiety, sadness, and fears). One FCC educator expressed the emotional difficulty she felt during the early months of the pandemic, "*I don't even want to even remember some of it…it's too painful and hurtful sometimes.*" Another FCC educator commented, "*I would not do infants during COVID-19, I was too fearful.*" Other educators spoke broadly about the impact of the pandemic on the ECE workforce. For example, a CBC educator stated "*COVID-19 has really impacted a lot of practitioners' mental state, you know following the protocols, wearing masks, trying to keep children safe, staying six feet apart.*"

An FCC educator shared that she and her husband are immunocompromised and made the difficult decision to remain open so they could maintain their income. She discussed how the pandemic coupled with the stress of caring for children hit her harder than she expected, "I'm trying to look positive and there are days that those positive days aren't positive anymore...I'm usually the positive ringleader or I have a lot to offer...I cried." A CBC educator discussed how the state mandates impacted her mental health, "I was really sad by all the restrictions [removal of sensory activities] that we had placed on us as a result of COVID-19...[the restrictions] were really hard for me, especially, think about the age group I teach, two- and three-year [old] children."

One FCC educator spoke about the emotional toll of the forever altered reality for her and the children due to the COVID-19 related deaths of three grandparents who were field trip helpers, "All the children attended those funerals because those grandparents were my grandparents that helped me on all my previous trips while parents worked." Another FCC educator discussed how she disregarded state guidelines in order to alleviate a younger child's stress and her own, "I was wearing a mask and trying to get them to wear masks and then the baby came back to me and screamed and cried because she was kind of scared of that and so I said I'm not I'm not doing this is because I'm a home daycare and I'm in my own home and it wasn't going to work for me"

Although the majority of educators discussed how challenges beyond the classroom impacted their mental health, a few educators talked about how proud of themselves they were for managing the early months of the pandemic. A CBC educator shared *"I'm really proud of how we...dealt with what were the cards that were on the table in that moment with*

5. Conclusion

This qualitative study explored the experiences of ECE educators during the first six months of the COVID-19 pandemic. Our findings suggest that FCC and CBC educators perceived the impact of policy changes at the classroom-level in similar ways. Specifically, our study suggests that state mandated ECE practice changes spurred by COVID-19 altered daily routines and instruction for educators in both contexts affecting the delivery of developmentally appropriate practices. FCC and CBC educators noted several challenges, disruptions, and stressors that impacted their practice and created challenges beyond classroom. Our primary focus was classroom-level changes; however, consistent with current research on the topic, our findings further demonstrate how COVID-19 disrupted ECE at the program level (Ali et al., 2021). Our findings suggest that program enrollment decreased for FCC and CBC educators due to the stay-at-home orders and the mandated policy changes that required social distancing. Our findings are discussed in the following section.

6. Discussion

This study revealed that the vast degree of disruption with daily routines was due to enhanced cleaning procedures, required PPE, altered face-to-face interaction with families, and physical comfort levels provided to children. FCC and CBC educators strived to implement their instruction in accordance with state guidelines and mandates by modifying materials, the physical environment, and human interactions. Consistent with other recent research we also found that the perceived impact of the pandemic went beyond the classroom, escalating existing and new challenges such as financial stress, enrollment, and educator well-being (Bassok et al., 2020; Kim et al., 2022; Souto-Manning & Melvin, 2022).

A recent review of 63 high-quality studies that examined the impact of COVID-19 on ECE reported similar findings regarding changes to daily routines, cleaning and sanitizing practice spurred by state guidelines and mandates (Weiland et al., 2021). Our study further adds to this literature by documenting ways interactions between educators and children became less physical in nature as did communication between educators and families. Specifically, educators used fist bumps and air-hugs in place of close physical contact with children, and employed the use of class apps (e.g., ClassDojo), social platforms (e.g., Facebook), video conferencing (e.g., Zoom) and text messaging in place of in-person parent communication. The critically important early developmental period that is characterized by crucial, rapid brain development is dependent on early experiences that set the stage for later development (Shonkoff & Phillips, 2000). Positive and engaging interactions with adults and peers foster opportunities for cognitive growth and formulates brain architecture, both of which support future development (National Scientific Council on the Developing Child, 2007). The decrease in face-to-face, in-person learning raises concern about children's later development. The importance of educator-child relationships, peer relationships, and school-family partnerships on child development warrants further research on how these changes may influence future child outcomes.

Instructional changes implemented during COVID-19 were documented in recent research that focused on the shift to virtual platforms (Weiland et al., 2021). Our findings support this shift and add that educators also changed their physical environment to accommodate the new situations brought about due to COVID-19 guidelines and mandates. For instance, room and setting configurations were adapted to accommodate social distancing, decrease the spread of COVID-19, and incorporate new daily practices such as all-day care for school age children engaged in elementary school virtual instruction. Further, our findings indicate that to maintain the new policy changes like no shared items and enhanced cleaning, educators removed developmentally appropriate items (e.g., sensory play). Children acquire knowledge through hands on play (Elkind, 2007). The removal of developmentally appropriate sensory play activities such as play-dough and sand raises concern about the effects of reducing appropriate materials that encourage exploration and learning. Additional scholarship is needed to understand how these changes may influence learning and development.

To maintain social distancing, our findings suggest FCC and CBC educators implemented practice changes to

eliminate group play and prevent physical contact among children and between educator and children. Educators shared that these changes impacted how children played together-children engaged in more solo play and were instructed to separate themselves and not to touch one another. This finding raises concern as empirical research demonstrates peer social interactions and play are important vehicles for learning and should hold a prominent position in children's daily lives. Play provides children the opportunity to acquire social and emotional growth and academic knowledge (Emfinger, 2009; Han et al., 2010; Johnson et al., 2005). Likewise, research demonstrates the social value of play among children as a means to learn communication skills, routines of conversation, vocabulary, perspective taking, problem solving, and self-regulation (Aras, 2016; Johnson et al., 2005; Sutton-Smith, 1997).

FCC and CBC educators expressed that their use of online video conferencing platforms in place of face-toface interaction was concerning. Specifically, they shared their struggle to maintain relationships and connections with children and families. They also questioned the appropriateness of online programming for young children. Their perspectives on virtual learning for young children are consistent with concerns raised about the developmental appropriateness of virtual learning for young children. Shortly before the onset of the COVID-19 pandemic, the Chief Executive Officer of the National Association for the Education of Young Children (NAEYC) wrote a critique of online commercial preschool programming for young children arguing that such programs were not developmentally appropriate (Allvin, 2020). Taken together these findings suggest developmentally appropriate practice was interrupted during the early months of COVID-19.

During the initial months of the pandemic and into fall of 2020, FCC and CBC educators faced additional challenges beyond the classroom such as financial stress due to income loss and increased expenditures, enrollment transformations, and reduced educator mental and physical well-being. Our educator well-being findings complement Markowitz et al.'s (2021) study that found teachers were overwhelmed and stressed. This increased stress is concerning as it may have negative implications for the ECE educators' physical and mental health, the quality of instruction that they provide, and child outcomes (Jennings, 2015). Much like Kim and colleagues (2021), we noted income losses were mostly discussed by FCC educators who lost income when children stopped attending during SAHOs that were coupled by the mandate to serve only children of essential workers.

Yet, educators in our study shared that their experiences with COVID-19 guidelines and mandates resulted in changes that disrupted daily practice and instruction. Short-term and long-term effects of how these changes and challenges affect children's developmental outcomes need to be examined further. These challenges are not easy to fix and are expected to linger, and further are not unique to one state (Weiland et al., 2021). Support for ECE educators, particularly their own well-being and financial support may provide some stabilization to the system; however, long-term policy solutions are needed.

7. Limitations and implications

Understanding the experiences and challenges faced by childcare educators during the pandemic helps us to better prepare for future crisis in ECE and provide information for policy makers to consider when drafting emergency protocols. For example, educators not only need information disseminated quickly in a manner that is easily accessible and straightforward but also developmentally appropriate for children. Although our study is limited to the experiences of a small number of educators from one state, our findings align with other reports suggesting educators had less time for planning, programming and normal daily routines making it difficult to keep up with changing protocols (Herr Research Center, 2020). Additionally, our study acknowledges the need to include quick rollout of professional learning experiences (PLE) for early care and education workforce when abrupt or drastic changes are made to the system. For example, PLEs on creating and implementing interactive online programming would provide educators with tools to more confidently shift to video conferencing platforms (Atiles et al., 2021). PLEs should also focus on creating a community of support networks and informational webpages with practice and planning for both FCC and CBC educators. Finally, understanding child, family, and educator experiences during the pandemic helps determine what further supports are needed to ensure optimal child development and educator well-being.

Conflict of interest

The authors of this study have no conflicts of interest to report. This study was not part of grant funded work.

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