



A Mixed-Methods Study Exploring the Educational Experiences of Foster Youth and Foster Parents During COVID-19

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Abstract

The COVID-19 pandemic and measures taken to decrease the spread impacted youth in foster care and foster parents in a myriad of ways. One critical yet unexplored area is how educational changes during the first 2 years of the pandemic impacted this specific group of youth in foster care and foster parents. This exploratory study used three methods: (1) A scoping review of the prior research on pandemics/climate events and school closures and the research from early 2020; (2) individual interviews and focus groups with foster parents and teachers; and (3) an online survey of 88 foster parents. We endeavored to include findings at each stage of the process. Research from prior epidemics and school closures and predictive models predicted learning losses which were verified by the findings in the survey and interviews. Foster parents reported that the youth in foster care had great difficulty concentrating with on-line delivery and the absence or greatly limited access to mental health services compounded the challenges. Even as children returned to classrooms, the behavior of children, youth resulted in suspensions and expulsions likely increasing learning losses. The discussion identifies some approaches to addressing COVID-19 learning gaps and the mental health needs of this vulnerable group of children and youth.

Keywords Foster care · Youth in foster care · Education · Learning losses · Learning gaps · COVID-19 · Pandemic

Soon after the first cases were reported in China and South-east Asia in late 2019, the coronavirus disease (COVID-19) quickly spread across the globe. The exponential growth of new cases and deaths in the United States resulted in efforts to reduce the spread of the virus, one of which was the federal and state “shelter-in-place” orders enacted in March of 2020. While emergency services, hospitals, and nursing homes remained open, universities, primary, and secondary schools closed. The effect on education was immediate, schools quickly developed new modalities of instruction and new attendance policies. Education in primary, middle, and high schools moved to internet-based platforms where

students logged into classrooms or different classes, engaged with teachers and other students through video platforms synchronously or asynchronously, and teachers and parents communicated through email or text.

The abrupt nature of the shelter-in-place announcement created other changes specific to youth in foster care and foster parents. When schools went to remote platforms, in-school counseling, individual and group therapies, and support services such as tutoring also went away. Youth in foster care also experienced emotional losses when they could not visit siblings or birth parents, and when adoptions were delayed due to court closures and changes in the operation of child welfare systems.

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Educational Challenges Among Youth in Foster Care

Relative to the United States population under 18, youth in foster care represent a modest subgroup. Approximately 407,493 youth were placed in foster care at the end of Fiscal Year (FY) 2020 (U.S. Department of Health and Human Services, 2021). There is evidence that current foster youth and

foster alumni have lower academic achievement and educational attainment than their peers (Blome, 1997; Shin, 2003; Sullivan et al., 2010; Tobolowsky et al., 2019). O'Higgins et al. (2017) conducted a systematic review of 39 studies on education and outcomes for youth in foster care and found that as the cognitive demand increases, youth in foster care are more likely to fall behind their peers. In addition, older youth in foster care who have more behavioral problems are likely to be even further behind as their behavior reduces time in class and increases school exclusion through administrative policies of expulsion or suspensions (O'Higgins et al., 2017).

Thus, the consequences for school closures during COVID-19 may be more negative for youth in foster care than for youth not living in out-of-home care. Indeed, research has increasingly documented that all youth, including youth in foster care, in the United States experienced educational challenges and learning deficits during COVID-19 (Blake et al., 2020; Lee et al., 2021; Lipien et al., 2022). For example, Lipien et al. (2022) interviewed caseworkers in child welfare services to examine their perspectives on educational experiences among youth in foster care during COVID-19 and discovered that youth in foster care had some difficulties with engaging in learning due to a lack of in-person tutoring and resources (e.g., online learning tools) as well as distractions. Similarly, another recent study of educational challenges facing youth in foster care revealed that most of the youth in foster care did not complete four or more hours of education per day (Beal et al., 2022), and foster parents had issues making adjustments for online learning (Whitt-Woosley et al., 2022).

Supports for Foster Parents During COVID-19

Foster parents experienced increased parental stress and additional burden to take care of children all day because of school closures during COVID-19 (Whitt-Woosley et al., 2022). Despite the additional caregiving burden, research has shown that foster parents received a lack of support and resources from teachers and child welfare caseworkers (Whitt-Woosley et al., 2022). Particularly, foster parents who have youth with mental health or behavior problems, or special needs frequently reported that they experienced disruptions in child welfare service provisions and inaccessibility to health services, exacerbating mental health or behavioral symptoms of youth in foster care (Whitt-Woosley et al., 2022). While some foster parents stated that telehealth services enabled their youth in foster care to continue to receive health services and communicate with health care providers, other foster parents still argued that they had several barriers to adjusting to the transitions for utilization of

telehealth (Loria et al., 2021). Loria et al. (2021) also identified that these families struggled with utilizing telehealth services because of unstable internet connections and a lack of electronic devices. Though a lack of resources and supports disrupted education and health care services, it has been identified that virtual modalities enabled some foster parents with those resources to continuously communicate and interact with health care providers (Loria et al., 2021) and teachers (Lipien et al., 2022) in a way that they may not have been able to, prior to the pandemic.

Mental Health Among Youth in Foster Care

It has been commonly identified that youth in foster care are likely to exhibit mental health problems, such as post-traumatic symptoms, because most youth in foster care have experiences of maltreatment (Bronsard et al., 2016; Dubois-Comtois et al., 2021; Oswald et al., 2010). A review of literature on associations between a history of maltreatment and mental health problems discovered that most of the youth in foster care have histories of maltreatment with neglect being the most frequent type of maltreatment that they experienced (Oswald et al., 2010). A meta-analysis also indicated that mental health problems of youth in foster care could persist or be exacerbated because of their frequent and multiple placements and abuse (Bronsard et al., 2016). Given the high prevalence of mental health problems among youth in foster care, most of these studies stress that it is important to provide youth in foster care with mental health services to alleviate their symptoms (Dubois-Comtois et al., 2021; Oswald et al., 2010).

Since more than half of youth in the US receive mental health services in school settings (Ali et al., 2019; Golberstein et al., 2020), it is reasonable to assume that the school closures and shelter-in-place orders could significantly hinder utilization of mental health services among youth in foster care, especially those who receive school-based mental health services. Though research has increasingly evidenced that school closures limited access to mental health services for children and youth (Golberstein et al., 2020), relatively little is known about how COVID-19 impacts access to mental health services among youth in foster care.

The Disproportionate Impacts of COVID-19 on Youth in Foster Care

There are certain aspects of identities which consistently predicted poor outcomes for youth in foster care. These identities include gender, racial/ethnic minority status, special education needs, and disabilities (Greeson et al., 2022). Moreover, early 2020 predictive models suggested

that brown and black students are at greater risk of withdrawing from schools. In early 2020, all children were predicted to lose a year of learning, but this loss was predicted to be greater for children who are black, brown, disabled, or had special needs (Dorn et al., 2020a, 2020b). There is evidence that school closures and the transition to remote learning place youth with disabilities and youth from families in poverty at greater risk of falling behind their peers because they have a lack of support and resources for remote learning (Chaabane et al., 2021; Fegert et al., 2020). Since most youth in foster care have a history of trauma and already suffer from health issues (Szilagyi et al., 2015), it is apparent that youth in foster care and foster parents face more educational and health challenges during COVID-19, widening the disparities in education and health (Dubois-Comtois et al., 2021).

Purpose of Current Study

The pandemic is not the first time that the United States has experienced prolonged school closures; the polio epidemics of the twentieth century, and environmental disasters have closed schools for lengthy periods. We have some research on the consequences of the closures for learning and lifetime income, and we also have research on ways to best address learning losses and closing the education gap. As exploratory research, this study combined a scoping review about methods used during other disasters and trending forecasts, focus groups/interviews, and a survey of foster parents to obtain a full picture of educational experiences among youth in foster care since the start of the pandemic. In addition, this study examined whether findings from earlier studies may provide some guidance for what educational systems can do for this and future epidemics or disasters. Thus, the current study aimed to answer the following questions:

1. What can we learn from the previous research on at-risk youth during other periods of forced school closures that could inform how we address educational and emotional needs of youth in foster care who are experiencing pandemic education?
2. What has the educational experience been like for youth in foster care and foster parents during the COVID-19 pandemic?

Methods

Design

Institutional Review Board approval (from a university) was obtained for the qualitative interviews/focus groups and for the survey. Mixed-Methods Sequential Exploratory design was initially planned, but context factors outside of the study resulted in some parts as sequential and some as concurrent. The planned design was collecting, analyzing, and integrating both quantitative and qualitative sources of data at different stages of the process in a sequential fashion, each informing the subsequent parts. The intent in mixing both kinds of data within one study is to gain a better understanding of the research issue (Creswell & Creswell, 2005; Tashakkori & Teddlie, 2003). However, funding problems and the late release of the funds, availability of faculty, doctoral and student availability during the pandemic, and most importantly access to teachers and parents during a pandemic resulted in both sequential and concurrent work, and a process that took much longer than initially projected.

Table 1 illustrates the procedure. We conducted the scoping review and interviews concurrently because both parents, teachers and student help were available at this time. As per qualitative analysis methods (Braun & Clarke, 2006), preliminary analysis occurred of the interviews as they were being conducted and then combined with some overarching themes from the scoping review. Although we started

Table 1 Procedures for mixed exploratory design

Phase (time frame)	Procedure
Scoping Review (Spring 2021)	• $n = 172$ articles reduced to 31 and abstracted
Interviews with foster parents and teachers Spring and (Summer 2021)	• In-depth interviews conducted in ZOOM or telephone
Preliminary qualitative data analysis of interviews (Summer 2021)	• Thematic analysis across cases
	• Recursive process
Summarization	• Findings from scoping review and themes from parent/teacher interviews Informed categories of survey items
Scoping review findings themes from interviews integrated (Fall 2021)	• Cross-sectional web-based survey
Quantitative data collection (Winter and Spring 2022)	• Cleaning
Quantitative data analysis (Spring and Summer 2022)	• Univariate and bivariate
Final Integration	• Interpretation of the results: quantitative and qualitative
Of the qualitative and quantitative Results Spring and (Summer 2022)	

drafting the survey in the summer, our survey was informed by both the scoping review and the qualitative interviews, with the survey finalized in December of 2021. We deployed an online survey in Spring of 2022 and closed the survey in early summer of 2022.

Scoping Review

We conducted scoping review with the intent of summarizing what others have found from earlier epidemics, pandemics or natural disasters that shut down schools, and to see if these studies focused in any way on the educational and emotional wellness of youth in foster care during periods of forced school closures. We followed Arksey and O'Malley's (2005) stages of question to finding relevant studies, systematically selecting and charting, and then summarizing. Figure 1 illustrates the process.

Search Strategy and Terms

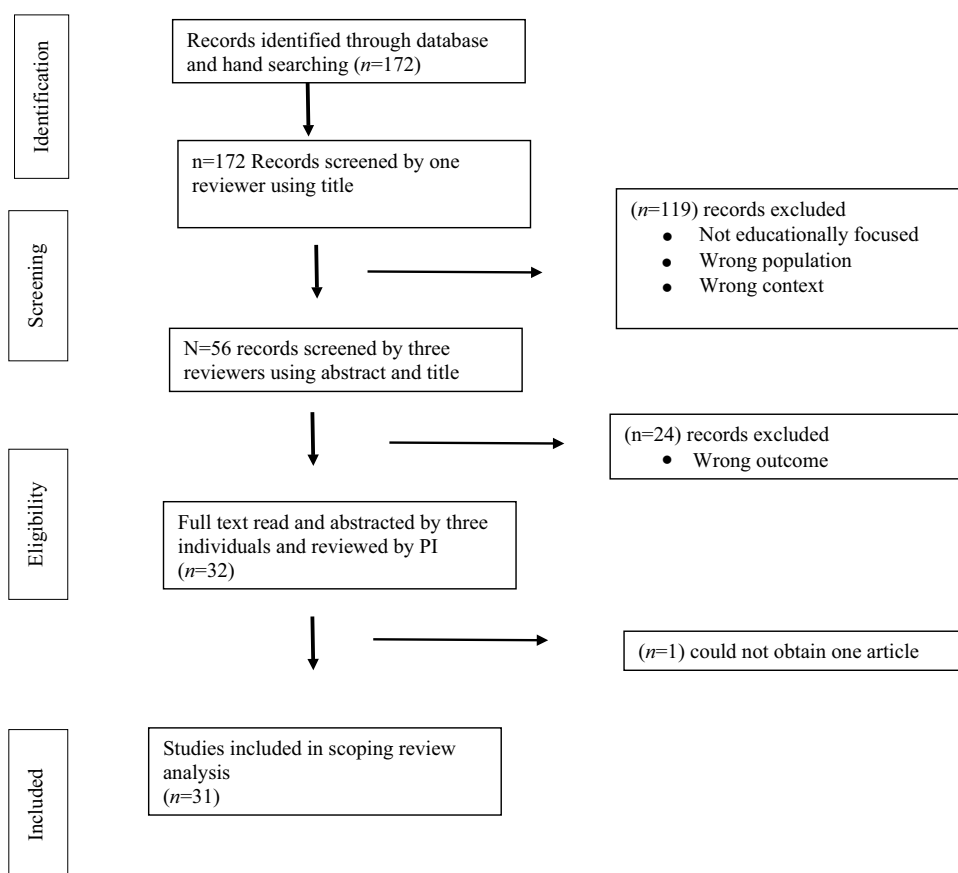
In the first step, the team met with a University Librarian specializing in systematic reviews and software. With the librarian's oversight, the Principal Investigator (PI), a library science graduate student, and a social work doctoral student created key search terms and Boolean

operators and searched the Education Resources Information Center (ERIC) database as well as hand searched the grey literature (presentations, foundation reports, school district reports). After a series of trial and error using terms, with the librarian's help, we used the following search terms: "teaching" AND "foster children" OR "foster youth" AND "caseworker" AND "crisis."

Inclusion and Exclusion Criteria

We limited articles written in English and published since 2010. Since COVID-19 was still a relatively new topic in the spring of 2021, we included natural disasters in the search along with pandemics. Moreover, think tanks, large school districts, news outlets, and foundations were able to get information published faster than in the peer reviewed literature, so those sources were hand searched. We also included dissertations, particularly those that focused on youth in foster care and education and teacher's responses to working with high-risk youth. In the second step, 172 articles and reports were downloaded from ERIC, hand searched, then exported into Rayyan, an online systematic review software (Ouzzani et al., 2016).

Fig. 1 Flow Chart of the Scoping Review: Identification and Selection process



Data Extraction

Using Rayyan, the Principal Investigator (PI) and the two graduate students familiar with foster care and education independently reviewed titles and abstracts and reached consensus on which articles to obtain full text. The next step in the process divided the 31 articles among four readers (the PI, two graduate students, and an undergraduate student) who abstracted them using a standard template of participant, context, methods, findings, and implications.

Data Analysis and Findings

The PI repeatedly read the abstracted articles and created a written document summarizing major themes from these articles relative to educational challenges and facilitators during periods of school closures. This document was circulated to the research team for member checking. Reviewers added to this document, which resulted in a final document summarizing how earlier school closures impacted youth in foster care as well as all youth.

The first theme from the research was that other research studies found that school closures resulted in learning losses and that there were differential losses depending upon race, grade, income, and disability. In the past, the students who experienced the greatest learning losses were those from low-income homes, or were African American or Latinx, or in foster care or disabled. The research also indicates that math is more vulnerable to reading to learning losses, and low-income youth are not likely to be able to obtain additional math tutoring. Learning losses are most likely due to lack of engagement, and youth with disabilities and youth in foster care had the lowest level of engagement with online classes.

The second theme from the research is the importance of teachers, and their adequate training and recognition that youth who have experienced multiple traumas will need additional support. The research identified the critical role that teacher–child relationships play in reducing losses in learning. Unfortunately, teachers have little training or resources to understand how to work with youth with a history of trauma. Finally, the research identified that youth in foster care have greater vulnerabilities due to their history, and without intervention, youth may return with greater post-traumatic symptoms and anxiety.

Individual Interviews and Focus Group Interviews

Recruitment of Foster Parents, Social Worker, and Teachers

The researchers worked with a foster care agency which placed children and young persons in homes in Western Pennsylvania. The research team contacted the director of

the agency to describe the study and ask for help in interviewing foster parents and teachers, since they also had an approved private school. The foster care coordinator contacted all foster parents with the information, and then interested and willing foster parents texted, emailed, or called the research team to arrange either a zoom or telephone interview. Five foster parents were interviewed. One social worker who supported foster parents was also interviewed, and a small focus group was held with five special education teachers. The director informed the teachers and the social worker of the study and asked them to participate during a scheduled in-service day. Although a focus group would have been preferred for the foster parents due to lively discussions that occur when people with similar experiences are together, finding a common time proved to be impossible due to the demands on foster parents for educating their children, as well as the challenges that COVID-19 presented to families. Consequently, individual interviews were conducted with foster parents. Teachers, however, had an in-service and were all free and this time was given to the research team for a focus group. There was only one social worker devoted full time to supporting parents, and they were therefore interviewed. Small gift cards of \$25 were sent to all participants.

The teachers and social worker who participated were almost entirely female (just one male) and Caucasian. They all possessed master's degrees and were in their thirties and had been teaching for more than 5 years. In terms of the foster parents, more than half of the parents interviewed were African American and ranged in age from late 20s to 64 years of age. All were fostering with the same agency for approximately 2 years prior to the pandemic, and all had one child in the home, with one foster parent reporting a sibling pair. None were foster kinship parents.

Interview and Group Question Guide

Since early findings in our scoping review suggested that youth of color, those with special education needs and those from low-income homes experience greater learning losses, we included open-ended questions about progress in coursework, homework challenges, challenges in teaching (for both parents and teachers). The questions also included whether an Individual Education Plan (IEP) was implemented, how parents communicated with teachers, psychologists, and social workers, and finally where parents and teachers were seeing learning gaps that would need to be addressed once students fully returned to in-person classes.

Data Collection

All interviews and focus groups were digitally recorded or recorded using the ZOOM platform and then transcribed by

the graduate student on the research team. Interviews took approximately 60 min. The focus group interview took one hour and thirty minutes.

Data Analysis and Findings

The researcher who conducted the interviews and a graduate student became familiar with the data by repeatedly reading the transcripts and notes from the interviews separately then together asking—“What kinds of challenges are they encountering?”; “What were they observing with their foster child?” Through this process, we created general themes from the interviews. The general themes that were identified were: (1) “Remote is not good for special needs kids—educationally or socially.”; (2) “Foster children have lost a lot more than other kids and right now school was not their biggest concern.”; (3) Returning to school—it will not be like the typical child returning after break.”; (4) “Mental health needs provided by schools were not replaced in community during COVID-19.”, and (5) “Cumulative learning loss occurred while schools were using online education—youth were behind before COVID-19 and now COVID-19-learning losses have compounded this.”

Relative to the question, “*What has the educational experience been like for youth in foster care and foster parents during the COVID-19 pandemic?*”, these themes suggest that youth in foster care came into the homes behind in reading and math due to neglect, abuse, truancy, and moving between schools prior to coming into the foster home. Foster parents, who were in charge of educating the youth during this pandemic, felt that the youth were losing ground due to technology problems, the youths’ untreated mental health and behavioral problems, and the challenge of keeping the youth engaged all day on screens. They could tell from homework and tests that their foster youth was losing ground, but they also felt that they could not subject them to additional tutoring on weekends or during the summer. They also identified that youth in foster care lost more than their peers and that education was not their priority; as they lost contact with siblings, parents, courts were closed, adoptions delayed, reunification delayed. All these losses became cumulative, and foster parents hoped that teachers would be prepared to deal both the educational losses and emotional traumas that youth in foster care would present with when they returned to in person education.

Synthesis of Scoping Review and Interviews and Focus Groups

The research team independently reviewed the scoping review article abstracts again and the themes from the interviews and focus group. After a discussion, the team synthesized both sets of findings into categories to identify

questions to include in the survey. This survey included questions about (1) learning losses; (2) teacher support provided to students; and (3) mental health of youth. Learning losses are when students forget content that they were taught and assessed to have achieved competence. Learning losses are typically grouped into mathematics and reading areas. Teacher support refers to the supportive actions of the teacher such as one to one conversation, individual assessment of learning, encouragement and creating a working alliance with the student. Mental health outcomes for youth in foster care refers to both mood and behaviors demonstrated by the youth and observed by the foster parent.

Survey

Recruitment

The research team recruited participants from two moderate-sized foster-care agencies serving the mid-Atlantic region. The research team spoke to foster care coordinators in six states to introduce the purpose of the study and how the information would be used. Foster care coordinators and support staff either sent out email flyers or talked with foster parents, providing information on how to access the online survey. Participants were offered a \$25 gift card for their participation in the survey. The survey took an average of 15 min to self-administer. Data collection occurred between January 2022 and March 2022, and we received 135 surveys. The study team decided to be conservative and exclude any response that could be individuals pretending to be foster parents or those who did not answer at least 50% of the survey. After carefully reviewing the responses to the screening questions about caregiver status, online response time, computer location, and missing data, we eliminated 47 respondents. Thus, the final analytic sample includes 88 respondents who completed the online survey.

Measures Used in Survey

The online survey was a mix of standard scale items and items created for the survey based upon the findings from the scoping review and interviews.

Resilience Because the agency was concerned about foster parent resilience, we used the 10-item Connor-Davidson Resilience Scale (CD-RISC-10) to measure foster parent resilience (Campbell-Sills & Stein, 2007). The respondents rated how they had felt over the past 1 month and how much they agreed with items such as “I am able to adapt when changes occur.” Responses were scaled from not true at all (0) to true nearly all the time (4). The total score ranged from 0 to 40, with higher scores indicating higher resilience (Cronbach’s $\alpha=0.91$). Although there is no

conventional cut-off score, the average resilience score of community samples in previous studies ranges between 31.8 and 36.3 (Campbell-Sills et al., 2009; Keener et al., 2021; Martinez-Marti & Ruch, 2017).

Youth Symptoms We used the Pediatric Symptom Checklist (PSC-17) (Gardner et al., 1999; Murphy et al., 2016) to measure cognitive, emotional, and behavioral problems. The PSC-17 is a widely used, briefer version of the PSC-35, a parent completed measure of youth's psychosocial functioning. The PSC-17 consists of 17 items completed by parents or caregivers that uses a rating scale of "Never", "Sometimes" or "Often" present (scored 1, 2 and 3 respectively). The total score is calculated by adding together the score of the 17 items, and total scores range between 17 and 51 (Cronbach's $\alpha=0.89$). A PSC-17 score of 15 or higher suggests the presence of significant behavioral or emotional problems. The scale has three subscales: (1) Internalizing subscale (cutoff of five or more items); (2) Attention subscale (cutoff of seven or more items), and (3) Externalizing subscale (cutoff of seven or more items). In a large national sample, the PSC-17 was found to have similar risk and reliability levels to that of the initial study (Murphy et al., 2016).

Education Information We asked foster parents about two different time periods, spring 2021 and fall 2021. Findings from the interviews reported that schools were primarily remote in 2021, as vaccines had not been approved for youth. However, by fall 2021, schools were beginning to return to in-person classes due to vaccination rates and lower rates of new infections. For each time period, parents described how education was delivered (i.e., hybrid, fully remote, in-classroom), their perceptions of effectiveness of these forms in terms of learning for their youth in foster care, whether their youth was educationally behind (learning losses), whether IEPs were being implemented, and their perception and satisfaction with how the teacher communicated with them. The foster parents also indicated the occurrence of punitive disciplinary actions such as suspension, detention, and expulsion. The foster parents did report on any tutoring in school or after, and the level of need for tutoring as measured by their assessment of how educationally behind the youth was going into the fall 2021 school year. The researchers developed a subscale on foster parent-teacher communication for this online survey based upon the interviews, and foster parents reported on communication with the teacher in the fall of 2021 (Cronbach's $\alpha=0.91$).

Mental Health and Support Services Based upon the findings from the interviews, questions were created about the availability of youth mental health services since March 2020, as well as what services and supports that they

accessed as a family (e.g., food support, housing, support groups), and services for their mental health needs. The online survey included open-ended questions so that foster parents could provide additional information about the mental health needs of the youth in foster care, as well as their own needs.

Support of Foster Care Agency At the request of the agencies, respondents described support from their foster care agency and the need for any additional training and support from the agencies.

Utilization of Services Since COVID-19 Foster parents indicated what services they accessed for themselves and their foster youth since the start of the pandemic. The options included mental health services, substance abuse treatment, support groups for mental health or substance abuse, family therapy, parenting education programs, domestic violence services, help with basic needs, income support, family support centers, food support, foster care support groups, daycare/afterschool care, individual counseling and group counseling, religious support, and transportation assistance.

Demographic Information Demographic information included age, gender, and race/ethnicity of youth in foster care. Also, parent characteristics, such as age, gender, race, ethnicity, marital status, education, employment status, and household income, were asked.

Results

Survey

Demographic Characteristics

In the survey, 81% of foster parents were identified as female and 19% were male. Many foster parents (40%) had some college or an associate degree, 32.5% had an undergraduate degree, 13.8% had a post-graduate degree, 11.3% earned high school diploma or GED (11.3%), and 2.5% had less than 12th grade education. More than half of foster parents (53.8%) reported they had full-time jobs, 11.3% had part-time jobs, 16.3% were homemakers, 6.3% were retired, and 3.8% were not employed. Although most foster parents (80%) said their employment status was not changed after the COVID-19 pandemic, 20% reported that their employment status was changed. The most frequently reported changes were hours of work (either reduced or increased) and job loss.

In spring 2021, foster parents reported that 74% of their foster youth attended public schools, with a small percentage (less than 10%) attending private religious, private, or

charter schools. About 45% of the foster youth were physically in the classroom in spring 2021, and 21% were doing face-to-face 1–2 days a week, 19% 3–4 days a week, and 16% were not in the classroom space. In terms of engagement in remote learning, many foster parents (70.7%) indicated that foster youth were not engaged and distracted from learning. Because of the adaption of the COVID-19 variants, school closures and openings were a constant process. However, foster parents verified increased face-to-face education in fall 2021, as reported at the time of the survey in January 2022. Most youth in foster care were in the physical classroom every day (75%), 10% 1–2 days a week, 8% 3–4 days a week, and 8% not in the classroom at all.

Learning Loss

The scoping review and interviews suggested that learning losses occur when schools are closed for lengthy periods of time, and this was supported by foster parent responses on the survey. Since children and youth come into foster care lagging behind educationally (Font et al., 2021; Sullivan et al., 2010; Vacca, 2008), COVID-19 school closures had the potential to widen the learning gap. Despite concerted efforts by foster parents and teachers, foster parents reported that engaging youth in foster care with online learning was very challenging. Some of this was due to lack of equipment and internet access, as well as the challenge of navigating online learning systems and a lack of comfort with technology. However, the most frequently mentioned challenge was that it was difficult to keep children/youth on task and focused. This is not specific to youth in foster care, but one respondent illustrated the challenge with this quote:

Remote wasn't good for special needs kids.

In the interviews, foster parents expressed concerns that their foster youth were not mastering materials at grade level, and this question was included in the survey. Foster parents were asked for their opinion as to whether the youth had mastered grade level material at the end of the 2020–2021 school year, and whether the youth should have been retained in the grade or promoted. A little under half (46.3%) believed that the youth had learned less than they expected and 45% thought that they mastered what was expected; only 12.1% were retained in the grade. When asked about the youth's proficiency and grades at the end of the fall 2021 semester, 30% reported that their foster youth had below average and failing (5.5%) on their report card.

Surveyed foster parents were dismayed when schools promoted the youth who had not mastered the material. The following quotes describe concerns that foster parents expressed:

They did not learn how to read and the district moved them anyway.

She had 4 D's, but they passed her.

However, foster parents were not in favor of holding a youth back in the grade. An early state education policy response was to allow parents to choose to retain their youth in the grade for the 2021 school year, without the school district's recommendation. Additionally, free summer school was offered on-line. Yet, neither option was satisfactory to foster parents. Thus, despite their concern about youth coming into foster care behind and compounded by COVID-19 related learning losses, they were reluctant to recommend or pursue retention. This was the result of social, as well as legal factors. First, foster parents felt that grade retention was a "punishment" to the child and stigmatizing: *"it's not her fault."* Moreover, foster parents do not have legal rights to make an educational decision, as that decision rests with the birth parent(s). Birth parents may fear that grade retention could be a held against them in their reunification efforts, so "the gift of time" as retention is often referred to, was not perceived as a gift. Online summer school was not viewed positively as many foster parents perceive the summer as family time. Working foster parents brought in help from their families to supervise the children's remote education, and their relatives needed a break from remote education. Moreover, foster parents were tired from the struggle of keeping the youth focused on school and they needed a break as well.

Teacher Support

The teachers who participated in the Spring 2021 focus group were seasoned special educators working in a dual mental health/education program, and they struggled with adapting and engaging students. In contrast, most teachers are not trained in educating youth who have adverse life experiences (Attwood et al., 2022; Brown et al., 2022; Gribble & English, 2016; Moyer & Goldberg, 2020). Parents in the survey expressed their desire that teachers become knowledgeable about the impact of trauma on their youth's ability to learn. The following quote illustrates their accounts:

More understanding of children/youth dealing with trauma is needed.

Additionally, most teachers were not aware of the added losses and traumas that foster youth experienced during the period of social distancing. One social worker commented about working with youth in foster care during this period. The social worker shared the experience with the following quote:

When you are dealing with foster children/youth, they have lost more than a normal person...education is not their first worry, they've seen a lot of life.

Therefore, communication between educators and foster parents became even more critical during this time. In the survey, foster parents were asked to rate the overall communication with their youth's teacher in fall. More than a quarter of foster parents (25.7%) indicated that they had less communication than past years. To gain a deeper understanding of communication with the youth's teacher, the survey asked additional questions about the nature of the communication during the pandemic. Foster parents reported difficulties getting a chance to talk with the teacher using phone or email (28.5%). However, when they did reach the teacher, they felt listened to (61%), respected, (54%), and felt as though the teacher cared about their youth (77%). In the open-ended comments, foster parents reported both positive and negative experiences in communicating with their child's teacher during this period. Parents asked for teachers to "return calls", "communicate with foster parents", and "just continue to stay in touch". 43% of the parents reported that their youth had an IEP during COVID-19, and more than three-quarters of the parents (76.4%) indicated that they were satisfied with the communication about IEP. However, while the majority (73.5%) were satisfied with the implementation of IEP, more than a quarter (26.5%) had somewhat or very unsatisfied with its implementation.

Mental Health of Youth in Foster Care

Foster parents felt that teachers were trying but believed that the educational system was insensitive to the needs of youth in foster care who were experiencing additional trauma due to social isolation and lack of mental health services. The following quotes illustrate how the foster parents perceive mental health needs of youth in foster care:

Due to her past trauma, and what she's been exposed to, holding her to a high standard is good and right, but I think she would benefit from more regular mentorship and conversations before immediate consequences.

Teachers need to not get mad at the child and consider what the child has gone through.

In the survey, 58% reported that their youth have emotional and/or behavioral problems and 57% reported that their youth needed mental health services and supports during the pandemic. Yet, the parents who sought help found it difficult to get a referral to a mental health specialist (55%) due to lack of available therapists, long waiting lists, and the absence of appointments. Services identified as the most challenging to access were weekly therapy/counseling, and

when it was available, it was tele-health. Some foster parents felt that this format was less effective than in-person sessions. The foster parents expressed their concerns with the following quotes:

My concern was that it was all done online. I don't think that he was getting the attention he needed with the online appointments. Even the counselor admitted that once his attention was gone, it was nearly impossible to get it back.

It was difficult to find a therapist offering in-person therapy and virtual therapy was not feasible for a 6-year-old.

In the survey, parents rated the youth's emotional and behavioral health using the PSC-17. Forty-nine percent of the children/youth had scores above the clinical cut-off indicating mental health problems. Thirty-six percent of the youth were identified as having internalized mental health symptoms and a similar percentage had problems with attention (32%), the most frequently endorsed problem was externalizing (39%). Thus, about half of the parents reported that their youth had mental health related symptoms and behaviors and, of this group, about a third reported internalizing and attention problems while a higher percentage (closer to 40%) report externalizing behavior problems.

Thus, it is not surprising that the return to in-person instruction resulted in frequent phone calls to foster parents. The survey results showed that more than a third of foster parents (38.3%) received calls from schools because of their youth's behavior and almost 60% of those who had calls reported that they received calls at least once a week. When asked why they were being contacted, foster parents reported that the youth were disruptive in class (*"bad behavior, talking back"*), violent (*"hitting and kicking and fighting"*), or inattentive (*"inability to stay on task"*). Thirty foster parents (34%) reported that the school had a disciplinary response to youths' behavior: 40% reported an out of school suspension, 20% reported in-school suspension, 20% reported detention (20%), and 17% reported problems with truancy. Parents were negative about this form of educational discipline. Their negative perceptions of educational disciplines are described by the following quotes:

Suspension is not a good idea for bad behavior.

Schools should get to know each child's background before resorting to suspensions.

During the pandemic, foster parents turned to the foster care organizations that employed them, asking for assistance with managing child/youth behavior (15.6%), advocating for school issues (11.7%), managing a crisis (10.2%), finding services for their foster youth (13.7%), and additional training (14.2%). In addition, almost 30% of foster parents

indicated they utilized foster care support groups (31.6%), food support (28.6%), and mental health services for themselves (28.6%). The scoping review did not find much on foster parent supports during pandemics, but the interviews and the survey findings were consistent in that foster parents were tireless and resilient in trying to find resources. They persevered and were advocates for the youth even when they struggled with juggling instruction, work, and home. However, foster parents found that communicating with educational systems and policies particularly challenging during a pandemic, even if communication with the teacher was positive.

Discussion

Using a mixed methods design allowed us to capture multiple time points in different ways during an on-going and evolving pandemic, which in turn helped to deepen our understanding of their experiences in a way that either a survey, focus groups or scoping review alone could not have provided. Survey results were consistent with what the research literature on earlier pandemics and school closures found, and interview data from the foster parents was very consistent with survey findings on mental health problems and learning losses among youth in foster care.

All forms of data (articles, interviews, surveys) suggested that youth in foster care are negatively impacted educationally, socially, and emotionally when schools are closed for lengthy periods. A clear finding from the research conducted on prior pandemics and disasters was that lengthy school closures negatively impact learning, and differentially disadvantage subgroups of youth, such as those in foster care (See Table 2). The past 2 years has been traumatic for children and youth, with upward trends in mental health symptoms for all youth (Fegert et al., 2020; Loades et al., 2020; Singh et al., 2020).

Limitations

Though the current study fills a gap by examining educational challenges among youth in foster care during COVID-19, there are some limitations to be considered. First, the study is limited by the fact that the survey had a modest sample size, making it difficult to do more sophisticated and statistically advanced analyses, and many of the items were created specifically for this survey. Also, the interviews were also conducted with foster parents from one agency which limits generalizability. Though the sample size was small, the research team gathered survey data of respondents from multiple mid-Atlantic states because one of the programs was multi-state. Replicating studies with a larger

and diverse sample and conducting secondary data analysis of Department of Education datasets would improve the generalizability of the findings. Next, the on-going nature of the pandemic could have impacted memory and recall of the participants, although they were prompted several times in the survey to think about specific dates and holidays to “cue” their thinking. Moreover, due to the additional caregiving burden during the pandemic, the research team had some difficulties with engaging foster parents in focus group interviews. However, using qualitative data collected from multiple informants (e.g., teachers) could address this limitation by allowing us to assess and identify these educational challenges from diverse perspectives. Lastly, the online survey data was collected only from foster parents’ self-reports, which might also cause recall bias or social desirability. Future research should obtain survey data from multiple informants to increase reliability and accuracy of the results. The final limitation was that the pandemic impacted the research team members and the University, slowing down routine processes and impacting the study timeline (Tables 3 and 4).

Implications

The pandemic could have a positive outcome if school districts adopt a universal approach to trauma recovery in schools. It is safe to assume that many students (and faculty, and staff) have experienced trauma of some form since the start of the pandemic in 2020. Individual therapy and case management services should be reinstated in schools with additional therapy time available for all youth, not just those in foster care. This will require hiring additional social workers trained in trauma-focused therapies.

Beyond managing truancy, which is the typical role for social workers in schools, social workers can provide therapies and play a vital role in improving communication between foster parents, youth, and teachers (Frauenholtz et al., 2015) and improving the well-being of youth in foster care (Zavalza, 2021). Social workers in interdisciplinary health care teams often function as a communication facilitator between patients and medical staff, going so far as to be described as the “glue” that holds the patient, nurses, doctors and staff together or as the “oil” that keeps the machinery of health care running (Bartlett et al., 2002, p. 4). Likewise, social workers could function of being the point of communication in educational teams since educational systems are similar in complexity of roles and functions to medicine. Additionally, social workers could assist teachers who are struggling to engage with children/youth that externalize their trauma. Educators are required to have ongoing training; therefore, training and coaching from social workers on

Table 2 Scoping review article summaries obtained spring/summer 2021

Authors	Question	Participants	Primary method	Key findings
Snyder (2021)	What are educators' experiences working with children in foster care in early childhood settings?	Educators ($n=9$)	Qualitative; semi structured interviews	Lack of training for educators for working with children who have experienced trauma Importance of relationship building with foster parents, birth parents and with the child
Schlott (2021)	What educational supports are necessary for older youth in post secondary education during COVID?	Alumni of foster care ($n=23$)	Mixed method design; evaluation of an educational program using digital supports during COVID; interviews and analysis of digital artifacts ("hits" on materials on website)	Having on-line resources was helpful to students, and utilized. However, alumni of foster care in educational settings need communication with consistent staff and faculty. On line resources are not sufficient
Martin (2021)	Do relationships with adults help foster youth persist in education?	$n=17$ Educators and paraprofessionals who work with foster youth in secondary education in a program designed to reduce drop out	Qualitative; case study method of one school which uses relationship-based interventions to help all youth stay in school; semi structured interviews	Relationships are important to retaining students in school but communication is challenging. The many people involved in foster youth's life are a challenge to communication and trauma also challenges the communication between youth and teachers Focusing on curriculum accountability will not be as impactful as putting time and structure into relationships and providing concrete resources to keep youth in school
DiMaria-Sileno (2021)	What is the impact of preparing educators to work with children who have experienced adverse life experiences? (ACES)	$n=14$ Elementary teachers who had between 1 and 3 years experience teaching in a rural school district	Mixed; Qualitative interviews and web enabled surveys	Teachers had little to no experience and training on teaching students with ACEs in their teaching preparation, and school districts did not provide this once they were employed. Teachers wanted this training because they felt ineffective in engaging these students
Zavalza (2021)	What services and supports are needed to help foster youth achieve academically in elementary school?	Elementary school principals in Southern California school district ($n=8$)	Qualitative study; interviews with principals	School district's hiring of four social workers specifically to work with foster youth was critical to improving the social and emotional well-being of these youth Consistent communication among teachers, principals and social workers was also found to be critical to academic success

Table 2 (continued)

Authors	Question	Participants	Primary method	Key findings
Culver (2020)	What are the educational needs of foster youth in elementary school as perceived by school staff	Elementary school staff in for different elementary schools ($n = 14$)	Qualitative study; interviews with school staff	The needs of these youth vary widely and a coherent structure sourced with personnel is needed if foster youth are to achieve success Ongoing assessment of needs, impact of supports to the youth is also needed; Critically more data is needed to track changing needs and impact over time
Jacomet (2018)	Can “unschooling”—a more free and flexible form of homeschooling benefit foster youth educationally?	Adults familiar with “unschooling”—families that used this method, foster parents who had unschooled ($n = 3$)	Qualitative study using auto ethnography and interviews	Unschooling may be a way to address the needs of foster youth in a way that the school system does not/cannot, both educationally and socially. However, adding this to foster parents is not viable and the author suggests that unschooling be done by a practitioner and not the foster parent
Adedoyin and Soykan (2020)	Is emergency on-line education and instruction different than online learning?	Review of the literature, number of articles not specified	Review of the research literature	The emergency situation under which schools operated in 2020 was not consistent with what considers to be engaged online learning. Poverty and lack of resources led to fewer resources in low-income households making online education very challenging and teaching challenging. Online learning during the pandemic should not be equated to online learning that is planned and well-executed
Barrett et al. (2012)	What role did schools have in helping adolescents adapt after a natural disaster?	Teachers ($n = 43$) and middle and high school students ($n = 120$ at baseline but attrition reduced to about 46 at 12 months	Longitudinal—students completed a survey at baseline, 6 months later and 12 months later based on the Child Health and Illness Profile Adolescent edition Teachers also completed repeat surveys over the 12 months	Adolescents who showed the greatest improvement in well-being were those who sought/received help from teachers and had family support Recognizing the importance of teachers and giving them reasonable class sizes and resources is critical, and principals set the tone in making the school trauma-responsive

Table 2 (continued)

Authors	Question	Participants	Primary method	Key findings
Korman et al. (2021)	What is the estimated number of children with limited educational access and attendance, spring to fall of 2020?	Information graphic created by Bellweather in 2020 to show the extent to which educational access has negatively impacted children at risk, e.g., those with disabilities, foster youth, ESL, homeless or housing insecure	The information graphic does not include sources but is a synthetic estimation based upon numbers 12.39 million children in the high risk groups and applying a factor that is unclear, they estimate that 3 million students were without access to education in 2020	Helps to broaden from foster care youth only to other at risk youth, suggesting that the number is larger than the number of children in foster care
Besecker et al. (2021)	What happened in Fall 2020 with online student engagement in the Los Angeles County School district?	Total student population in the Los Angeles School District elementary, middle and high school for August to October 2020 <i>n</i> not specified	On line learning management system “schoolology” provided descriptive data about who was accessing the system for classes on the on-line platform. The data were then dis-aggregated by race, English language status, foster care, household income, disability status and homeless	While overall engagement increased, On-line engagement was still low for students of color, students with disabilities, student in foster care and students in the homeless program compared to more privileged students
Besecker et al. (2020a)	Covid 19 learning loss in the Los Angeles County School district—how are students being impacted; what are the intersections (losses greater for some than others)?	Total student population in the Los Angeles School District elementary, middle and high school for the period of March 2020–May 2020 <i>n</i> not specified	Utilized data from the on-line schoolology learning management system and also used synthetic estimates based on past studies and applied to the current student body	Estimated that 9 out of 10 foster care students returning to school in the Fall of 2020 would have experienced severe learning loss from the Spring of 2020 closures and that the district will need to address these losses through additional learning programs
Besecker et al. (2020b)	What happened in Spring 2020 with online student engagement in the Los Angeles County School district?	Total student population in the Los Angeles School District elementary, middle and high school for the period of March 2020–May 2020	Online learning management system “schoolology” provided descriptive data about who was accessing the system for classes on the on-line platform. The data was then dis-aggregated by race, English language status, foster care, household income, disability status and homeless	Similar to findings that persisted into the fall of 2020. Brown and Black students, those in foster care, with disabilities, for whom English is a second language, those who were homeless were less likely to engage in on-line school than the more privileged students

Table 2 (continued)

Authors	Question	Participants	Primary method	Key findings
	What are teacher's perceptions of remote learning and student engagement in Fall 2020?	4, 750 L.A. School District Teachers divided into grade levels from elementary to high school, special education and adult education, $n = 1300$	Web-enabled Survey of teachers	Many teachers perceived their students did not master grade-level standards and few teachers believed they taught 100% of the curriculum they would have taught if instruction was in person. Less than a third of teachers reported that most of their students completed distance learning activities each week. Half of elementary and secondary school respondents indicated fewer students met or exceeded grade-level standards in the fall 2020 semester compared to the previous year. Many teachers believe their students will have unfinished learning and need strategies for acceleration and differentiation in the coming months and years as well as need for emotional and support services
Conn (2020)	What have foster parents experienced in the spring of 2020 and how are New York foster parents preparing for the Fall 2020 school semester?	This is a press article from The Imprint, ($n = 5$) interviews with foster parents	Interviews with five foster parents in New York state in order to provide a profile of these families and with several agency staff persons	Having connection and support from other foster parents was critical in navigating last spring for parents. Parents feel that their foster children are missing out on critical social and emotional learning opportunities with school closures and they need the systems (child welfare and education) to support them in trying to provide these experiences. The spring semester was one of rushed lesson plans and poor planning and just in time which does not work for foster families

Table 2 (continued)

Authors	Question	Participants	Primary method	Key findings
Dorn et al. (2020a, 2020b, 2020c)	What is the possible long-term damage of COVID-19 related school closures on low-income, black and Hispanic Americans?	Report from McKinsey Company a consulting firm. Epidemiological modeling, <i>n</i> not specified	They created mathematical models to predict impact. This was based on epidemiological methods for predicting the impact of health disasters on populations and sub-populations	Models found that learning loss predictions were greater among Brown and Black students and those in low income homes, increase drop out rates which reduces lifetime income. They estimated that all students will lose about a year of earning (not adjusted for inflation) as a result of COVID learning loss and this loss of income will be greater for disadvantaged students
Font (2020)	Exploration of issues that foster care youth will be exposed to during COVID-19	Not based on study of youth but rather her experiences as a researcher (no <i>n</i>)	Educated opinion and synthesis of research about youth in foster care	Font conjectures that students come into foster care behind educationally, and that the pandemic will deepen this divide. She feels that there will be a need for additional educational and occupational programs post-isolation
García and Weiss (2020)	How can education systems get immediate relief, have some short term recovery and then rebuild in the long term?	This report by the Economic Policy Institute synthesized research on educational settings that have features in common with how education is occurring <i>n</i> not specified	Uses data from the EPI analysis of the National Assessment of Educational progress microdata, student assessments, staffing surveys and the results were synthesized into the report	Students will lose significant learning time due to digital divide particularly in families in which there are other pandemic related stressors and negatively impacted by economics of the pandemic. Relief—give schools resources immediately to reach children/families remotely, by providing equipment, training and teacher support; Recovery is providing support to students most negatively impacted/or who lost educational ground. Long term rebuild educational system to focus on nurturing the whole child and equal provision of opportunities

Table 2 (continued)

Authors	Question	Participants	Primary method	Key findings
Greeson et al. (2022)	How have older youth who have recently transitioned out of foster care or are in independent living services faring during the pandemic in terms of housing, food, education and relationships?	Older youth who have transitioned from care. The survey was conducted by the Field Center for Children's Policy, Practice & Research Center at the University of Pennsylvania <i>n</i> = 281 youth recruited from 32 states and DC. Ages 18–23	Cross-sectional survey of youth recently transitioned out of foster care, nonprobability sample. Survey questions adapted from National Youth in Transition Survey. Deployed March 2020 Analyses primarily descriptive and bivariate	Youth who had just exited foster care right before the pandemic were poorly prepared to live independently with little supports (due to pandemic isolation). COVID made them vulnerable to food and housing insecurity. Older youth who had remained in foster care had these basics covered whereas those who exited did not. Educationally, students had to leave education settings, lost housing due to school closures. 60% of older youth felt that they lost ground educationally Typical growth curves show summer slide in Math, less so in reading; Growth curve forecasting suggests that students will be 1 year behind in math when returning to classes in 2021 fall Since math has a larger slide, focus should be on math remediation with assessment of loss in skills, as youth return to school in fall 2021; Address digital divides that put some groups at a disadvantage
Kuhfield and Tarasawa (2020)	What can seasonal (summer) learning loss tell us about the potential impact of school closures on student academic achievement?	NWEA research brief synthesizing secondary data: Not sub grouped into risk categories <i>n</i> = 5,000,000	Secondary data analysis using data from 5 million students in grades 3–8 who took the MAP growth assessments in 2017–2018 Forecasting strategy was based on average growth trajectories typical between spring semester and fall semesters	Typical growth curves show summer slide in Math, less so in reading; Growth curve forecasting suggests that students will be 1 year behind in math when returning to classes in 2021 fall Since math has a larger slide, focus should be on math remediation with assessment of loss in skills, as youth return to school in fall 2021; Address digital divides that put some groups at a disadvantage
Lennox et al. (2021)	What have we learned from the initial international response to education of children in low-middle income nations? Can the pandemic transform education in low and middle income countries?	UNICEF summarizing how nations addressed the national crisis of education. Descriptive research on innovations in low-middle income countries as a “lessons learned”	Mixed methods. UNICEF sent out surveys June 2020 to low and middle income countries ministries; additional case studies,	Surveys revealed a variety of low tech options as well as more sophisticated technology. Approximately one third of children globally were not in school and it is predicted that drop out rates will increase. Survey identified those most at risk of drop out were disabled, foster children Interesting to note that some low-middle income countries (Timor-Leste) had one child/one laptop policies in place prior to pandemic and were prepared to do remote education Also, despite recent pandemics (Ebola, Zika) the international educational community was not prepared to deal with rare events that have global impact such as COVID 19

Table 2 (continued)

Authors	Question	Participants	Primary method	Key findings
Chen et al. (2021)	How significant is learning loss globally?	Teachers, in 8 countries, not sure what <i>n</i> is as this was a research brief,	Descriptive research, survey distributed between March and July 2020	teachers rated the effectiveness of remote learning at between one and three out of ten, and teachers in low-income school districts felt that remote learning disproportionately negatively impacted these students, exacerbating inequalities There was a range of responses depending upon the country, and a range of plans for returning to in person instruction
Wise et al. (2020)	How do students with disabilities compare to other students in the LA School District	Total student population in the LA School District disaggregated into disability categories	Descriptive research using exiting data collected in LA school district such as GPA, CAA test performance, withdrawal from school. Additionally included data from an independent monitoring agency	Not specific to foster care or COVID, although youth in foster care often have IEPs. Overall, students were not behind and were on track to graduate but graduation rates for students with disabilities were lower than for students without disabilities, and chronic absenteeism was higher than for students not in the disabled category
Wise et al. (2020)	How can we make up for lost time educationally	Report	Suggested interventions that would address COVID-19 related learning losses	One policy suggestion was expanding summer programs
O'Higgins et al. (2017)	What factors are associated with educational achievement for youth in foster care or kinship care?	Systematic review <i>n</i> = 39 studies of factors associated with educational achievement of 88,775 foster/kinship youth	Systematic review of research on foster youth and educational achievement	As cognitive demand increases, foster youth are more likely to fall behind and older youth who have more behavioral problems are likely to be even more behind as their behavior reduces time in class and school exclusion. There are individual factors as well; boys, minority status and special education needs and disabilities consistently predict poor outcomes whereas aspirations of foster parents and youth help to improve educational achievement

Table 2 (continued)

Authors	Question	Participants	Primary method	Key findings
Myers and Thomasson (2017)	What were the long term educational consequences for youth who experienced school closures during the 1916 polio pandemic in the United States	Census and state level polio morbidity from the 1916 records. <i>n</i> not specified but used four pooled birth cohorts born between 1895 and 1905 of men born in the United States	Using census and morbidity data from 1916 and then census data from 1940 for people residing in the same state, did a post hoc pre/post looking at the 1940 incomes for men impacted by the 1916 polio epidemic school closure. Regression analysis was used to estimate the impact of school closure controlling for state level economic factors and demographic factors	Polio pandemic had differential impact on educational attainment. Men old enough to have labor market alternatives and living in areas affected by the polio pandemic had lower educational attainment levels compared to youth living in areas not impacted by the pandemic. This was not true for youth too young to enter the labor force. Suggests that during periods of forced school closures youth 14–17 are likely to enter the labor market, with resultant lower lifetime earning
Nguyen and Minh Pham (2018)	What is the impact of natural disasters on the educational outcomes of children in low-middle income countries? Does the type of disaster have differential impact?	Data from the Young Lives Project, an international study of child poverty in India, Ethiopia, Peru and Vietnam informed the article. YLP is a longitudinal panel study over a 15-year time span using surveys of children from these countries. Surveys of children were conducted in 2002; 2006/7 and 2009/10 <i>n</i> = 12,000	Design was longitudinal pre/post as youth were followed for a 15 year period. Regression analyses were performed to control for population and time invariant variables	Children in poor households are most vulnerable to natural disasters of any type, although floods had more negative impact on education. The mechanism wasn't clear as to why but authors hypothesized that floods cause long closures of schools and this leads to diminished economic opportunities. Floods also have a health component. Authors conclude that natural disasters harm education through a negative effect on household consumption expenditure, so increasing household income through transfers can help mitigate the impact of natural disasters for poor families

Table 2 (continued)

Authors	Question	Participants	Primary method	Key findings
Özek (2021)	What were the educational spillover effects of Hurricane Maria for all youth after migration to Florida schools?	Working paper from the Annenberg Institute, Brown University Population were youth in one school district in South Florida who had immigrated from Puerto Rico after Hurricane Maria	Correlational study with educational outcomes e.g. GPA, disciplinary incidents and dropping out as outcomes. Variables included in regression analysis included immigration status, classroom status, school time	Existing students in the “host” schools experienced a drop in educational outcomes for all students, just not those who came post-hurricane. Higher achieving students in poorer school districts were the most negatively impacted. The mechanism appears to be the result of moving the “best” teachers away from honors student classes and moving them into the classes with the majority newly migrated students. Thus the shift in resources in a poorly resourced school district results in lowering achievement for students, particularly in math
Picou et al. (2007)	What were the social impacts for students who were displaced educationally after Hurricane Katrina?	$n = 3681$ K-12 students originally from Mississippi and Louisiana who were displaced to Mobile and Baldwin Counties in Alabama	Mixed methods design, exploratory and descriptive	Large influx of new students, all at different levels of learning resulted in teachers continual revising of learning plans which seemed to impact math and science the most. Students experienced trauma and teachers were not prepared and scarcity of mental health supports in the school exacerbated the problem. Students came with few resources (clothes, books, housing, food, missing medical records). This context negatively impacted their ability to learn

Table 2 (continued)

Authors	Question	Participants	Primary method	Key findings
Smith (2020)	How did the Ebola pandemic influence the enrolment patterns of school age youth in Sierra Leone and Guinea? And did the pandemic disproportionately effect the most marginalized?	<i>n</i> is not but the population studied using the UNESCO's datasets are children and youth in the two countries most impacted by Ebola who were ages 6–18	Descriptive, longitudinal, using Demographic Health Surveys and Multiple Indicator Cluster Surveys looking at Ebola time period to 2020 DHS and MIC surveys are nationally representative. Are part of UNESCO's database on education In addition to descriptive statistics, logistic regression used	Highest drop outs were concentrated amongst secondary students in poorer families and rural areas. Failure to come back to school Oldest students in the poorest families were the least likely to return to class after school reopened: secondary students may be pressured in low income households after the epidemic to stay in the labor force, rather than go back to school. Ebola was deadly and there was a fear element that covid does not have. eg. young people died from Ebola at high rates whereas young people get covid but have lower death rates. that makes it more challenging when schools resume to get students to practice social distancing. Poor students may need a more comprehensive package (financial support, cash transfers, school meals, reduced school fees)
Thamtanajit (2020)	What was the impact of severe flooding on student achievement in Thailand?	student test scores from grades 6, 9 and 12. Educational outcomes were math, english science and social studies. <i>n</i> was in the 20,000 range for the number of test scores used in analyses	Quasi-experimental. Control group were regions NOT impacted by flooding, but eliminating capital city. Also used time as a covariant 2006–2013. Flood was in 2011 so years leading up were pre and years after 2011 were post	Flood in Thailand in 2011 closed schools for weeks and months is associated with a significant decline of all test scores for grade 6 (except social studies), all scores for grade 9 and only one score (social studies) for grade 12 The authors do suggest that countries with high stakes testing which have a disaster should consider how to interpret scores post disaster in terms of what the scores will lead to (college admission)

Table 3 Demographic information of foster parent and foster child ($N = 88$)

	<i>n</i>	<i>M(SD)</i>	Range
Foster parent			
Age		42.9 (12.34)	24–78
Gender			
Male	15 (19.0%)	–	–
Female	65 (81.0%)	–	–
Race/ethnicity			
White	51 (62.2%)	–	–
African American	27 (32.9%)	–	–
American Indian/Alaska Native	0 (0%)	–	–
Asian	1 (1.2%)	–	–
Hispanic/Latino	2 (2.4%)	–	–
Two or more races	1 (1.2%)	–	–
Education level			
Less than 12th grade	2 (2.5%)	–	–
High school diploma or GED	9 (11.3%)	–	–
Some college or associates degree	32 (40.0%)	–	–
Bachelor's degree	26 (32.5%)	–	–
Postgraduate	11 (13.8%)	–	–
Employment			
Full-time	43 (53.8%)	–	–
Part-time	9 (11.3%)	–	–
Homemaker	13 (16.3%)	–	–
Retired	5 (6.3%)	–	–
Unemployed	3 (3.8%)	–	–
Other	7 (8.8%)	–	–
Changed employment status since COVID-19			
Yes	14 (18.2%)	–	–
No	63 (81.8%)	–	–
Household income			
Under \$25,000	8 (10.3%)	–	–
\$ 25,000-under \$50,000	20 (25.6%)	–	–
\$50,000-under \$75,000	27 (34.6%)	–	–
\$75,000-under \$100,000	13 (16.7%)	–	–
\$100,000-under \$150,000	6 (7.7%)	–	–
\$150,000 or more	4 (5.1%)	–	–
Foster child			
Age of foster child		8.72 (5.22)	0–19
Gender			
Female	37 (42.0%)	–	–
Male	51 (58.0%)	–	–
Race/ethnicity			
White, non-Hispanic	43 (48.9%)	–	–
Black, non-Hispanic	26 (29.5%)	–	–
Hispanic	7 (8.0%)	–	–
Asian/Pacific Islander	0 (0%)	–	–
Native American	0 (0%)	–	–
Two or more races	12 (13.6%)	–	–

Table 4 Descriptive statistics of key study variables ($N=88$)

	<i>n</i>	<i>M (SD)</i>
Child mental health		
Total score		
< 15	36 (50.7%)	
≥ 15 (a cut-off score)	35 (49.3%)	
Internalizing subscale		
< 5	48 (64%)	
≥ 5 (a cut-off score)	27 (36%)	
Attention subscale		
< 7	51 (68%)	
≥ 7	24 (32%)	
Externalizing subscale		
< 7	45 (60.8%)	
≥ 7 (a cut-off score)	29 (39.2%)	
Foster parent resilience		
Resilience		29.9 (7.0)

the interdisciplinary team on using trauma-informed pedagogies could be part of ongoing training for educators.

It has been observed that students learn when they're motivated, and the motivation to work on basic skills comes from an emotionally based, face-to-face relationship with specific people (Chambliss & Takacs, 2014.). Technology is not a substitute (Schlott, 2021) for a face-to-face educational relationship for any student, but perhaps it is most critical for students who need additional motivation to overcome learning deficits. This is consistent with foster parent's observation in the interviews and in the survey that removing a youth from face-to-face instruction via suspension is not an effective discipline or learning approach (Noltemeyer et al., 2015; Skiba et al., 2014). Yet, a sizable number of parents reported that their youth received suspensions for acting out and other behavioral problems, removing them from a classroom during a period post-COVID-19 when face-to-face learning was critically important to addressing learning losses. Addressing the mental health and trauma-related behaviors through therapy, medication and methods of emotional regulation will have better long-term outcomes than removing a youth from the school. (Sanchez et al., 2018; Stein et al., 2003). Tutoring is also a needed service for all youth, but especially for those in foster care, as face-to-face tutoring has been effective in motivating students and closing the learning gaps (Harper & Schmidt, 2016; Pecora et al., 2006). In this region, there was a plethora of tutoring program during the early part of the pandemic, but the number of programs and volunteers has diminished ironically at a time when it is most needed.

Unfortunately, despite the prior research and the early reports from credible research units predicting distracted learning and learning loss and advising on how to prevent

it, large-scale policy changes did not occur, and schools were left to figure it out. It is likely that COVID-19, its variants, along with climate disasters will continue to disrupt education. To prevent disadvantaged young persons from falling even further behind, our educational systems need to become nimbler, more collaborative with other systems, and adaptable. The Department of Education, State Departments of Education and local school boards need to reimagine a world in which schools operate both within four walls of a school building and outside them in community spaces. Listening to key stakeholders when they say that a policy response is unacceptable or inadequate for addressing the needs of vulnerable groups of children and youth could help to create better policies. Trauma and its responses should be recognized and addressed as a public health concern impacting educational interventions. Interdisciplinary team approaches may help to reduce stress on the teacher and improve communication between foster parents, youths, and teachers. School disciplinary responses which engage and involve rather than isolate and punish will go a long way in reducing learning gaps. Finally, the pandemic has provided an opportunity for the educational system reform and for individual school districts to end "business as usual" and to re-imagine and re-invent for the benefit of all students.

Conclusions

Youth in foster care faced multiple challenges, including learning losses, during COVID-19. Foster parents reported that they had less communication with teachers than they did before COVID-19, and difficulties with accessing mental health services though their youth suffered from emotional and behavioral problems. To address these challenges among youth in foster care, a systemic approach in educational settings is required. School social workers and educators should make a concerted effort to provide school-based interventions, such as in-person tutoring and trauma-informed practices and foster effective teacher-parent partnerships and communications, which may in turn improve academic and mental health outcomes among youth in foster care.

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Declarations

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