

RESEARCH ARTICLE

Effects of Remote Education During the COVID-19 Pandemic on Young Children's Learning and Academic Behavior in Georgia: Perceptions of Parents and School Administrators

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ABSTRACT

BACKGROUND: In Spring 2020, Georgia public schools implemented remote learning to manage the spread of COVID-19. This study explores the effects of remote schooling on the learning of young children in Georgia during the early COVID-19 pandemic from the perspectives of school administrators and essential working parents.

METHODS: A qualitative exploratory study was conducted with eight school administrators and 26 essential working parents of children in kindergarten through third grades of two rural and two urban schools in Georgia. Data collection included online surveys, virtual interviews and focus groups. Descriptive analyses of the demographics provided context to emerging themes from qualitative data.

RESULTS: Most school administrators and parents reported declines in student learning and academic behavior related to remote learning. Lack of Wi-Fi, technology, and digital literacy were often cited as barriers to learning. Challenges with remote learning were amplified for students and parents of vulnerable groups.

CONCLUSIONS: The findings of this study illustrate the need to institute policies, procedures, and supports to maximize schools' ability to safely offer in-person learning during the COVID-19 pandemic. Considerations should be made of the needs of essential working parents, vulnerable populations, and the digital divide.

Keywords: elementary education; COVID-19; virtual learning; remote learning; educational gaps.

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In response to the COVID-19 pandemic, schools in the United States closed to in-person learning in Spring 2020, affecting over 77 million students

nationwide.¹ All public schools in Georgia were mandated to cease in-person learning as of March 16, 2020, and remote schooling was quickly implemented

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and ultimately sustained for the remainder of the academic year.² In Fall 2020, school districts implemented a variety of student learning modalities. While some retained remote learning, others either operated fully in person or utilized a hybrid model of virtual and in-person modalities.³

Prepandemic inequities and subsequent educational gaps placed many vulnerable students at risk of falling further behind academically during the COVID-19 pandemic.⁴ In 2009, 83% of low-income fourth-grade students tested below proficiency levels in reading, compared with 55% of their moderate to high-income counterparts. These discrepancies were found to be higher among Black and Latinx students.⁵ In Fall 2017, 45% of Black and Latinx students attended high-poverty public schools, while eight percent attended low-poverty schools.⁶ Lesser resourced schools are more likely to be ill-equipped to flexibly adapt to alternate instructional models as required by the pandemic.⁴

Virtual learning inherently poses challenges for younger students, children with disabilities or learning challenges, and students whose home environment is not conducive to learning.⁷ Many working parents, especially those whose jobs are considered essential, struggled with the competing demands of work and supervising children learning from home.⁸ In 2020, when many schools utilized virtual learning, 17% of households in Georgia lacked internet and a home computer available for student use. Nationwide, this rate was higher for Black (25%) and Latinx (20%) families.³ These discrepancies have the potential to further widen existing educational gaps and inequities.⁹

In a 2021 systematic review of global learning losses during the COVID-19 pandemic, all studies of students younger than college age found declines in academic performance.¹⁰ A prepandemic comparison of virtual to in-person learning among fifth and eighth grade students in the United States found that virtual learners demonstrated significantly lower standardized test scores in math and English/language arts.¹¹ Reading proficiency by the end of third grade is a significant predictor of future academic outcomes,^{5,12} including high school graduation and college attendance rates, which in turn may affect health outcomes into adulthood.¹³ Risks of not completing high school are higher for students with delayed reading who also live in poverty.⁵

The purpose of this study was to explore the effects of remote schooling on the learning of young children in Georgia during the early COVID-19 pandemic, from the perspectives of school administrators and essential working parents. This study focused on students in kindergarten through third grade who attended urban and rural public elementary schools in Georgia.

METHODS

Study Design

A qualitative exploratory study was conducted that included demographic surveys, informant interviews, and focus groups.

Participants

School personnel. Four Georgia public elementary schools were selected representing different geographical designations (ie, urban or rural) and state-wide locations. The participating schools included one urban and one rural elementary school in North Georgia, and one urban and one rural elementary school in South Georgia. Additional school inclusion criteria were that approximately 50% or more of the students qualified for the Free or Reduced-Price Lunch Program (FRPL), and schools offered both virtual and in-person learning modes in the fall of 2020. Although both modalities were offered in Fall 2020, schools encouraged in-person learning more strongly as the academic year progressed. Individual interviews were conducted with a principal, assistant principal, and school nurse from each of the elementary schools.

Parents. The recruitment target for the parent/guardian focus groups was three groups per school, consisting of about five parents/guardians each. Families with younger children were selected as they require more supervision, and are at a time of critical foundational learning. The original inclusion criteria for parents and/or guardians to participate in the focus groups were: (1) having at least one child in kindergarten through second grade attending the enrolled schools, and (2) being employed as a Tier 2 essential worker. Tier 2 essential workers in Georgia are employed in: food, grocery, and convenience stores; nonclinical pharmacy work; food and grocery processing, production, manufacturing; farming; restaurant food service, preparation, or delivery.¹⁴ The inclusion criteria for parent focus group participants were subsequently expanded due to an unexpected low volume of parents/guardians successfully recruited. The first inclusion criterion was extended to include parents/guardians whose jobs required them to work outside of the home. The second inclusion criterion was expanded to include the parents/guardians of children attending kindergarten through third grades. Focus groups were ultimately conducted with 26 essential working parents who had children in kindergarten through third grades, from one of the participating schools.

Data Collection Methods

Four data sources were used for this analysis: (1) school characteristics survey; (2) individual interviews with principals and assistant principals (interviews

with school nurses were excluded for this manuscript since they did not discuss perceptions of student learning); (3) focus group participant demographics survey; (4) parent focus group discussions.

School personnel survey and interviews. The school surveys were completed by principals before the interviews via a fillable PDF form. Principals were asked to respond regarding either the entire school or students in kindergarten through second grade only, as the original inclusion criteria for the parent focus group had not yet been expanded to third grade. Principals reported on student body race and ethnicity, the percentage of families who primarily spoke Spanish at home, the number of students enrolled, the percentage of students eligible for FRPL, and the number of children participating in each of the school's learning modalities.

Development of the interview guides for the school administrator interviews was informed by the purpose of the study and existing literature. The instruments were pilot tested with school administrators from other Georgia elementary schools, and refined as needed.

School personnel interview topics included: professional background, current job responsibilities, impact of COVID-19 on the learning environment, outreach strategies for students and families, communication between the school and Departments of Public Health, and unmet needs for students, parents, and school personnel (Table 1).

Parent survey and focus groups. Before participating in the focus group discussions, parent participants completed an online survey administered through Qualtrics.¹⁵ Parents reported their age, race and ethnicity, gender, marital status, whether they were parents or guardians, number of children attending the elementary school and their grade levels, and learning modalities used for the current academic year. Parents also reported their occupations and work schedules.

The focus group moderator guides were developed based on professional experience and informed by existing literature about the COVID-19 pandemic.^{16,17} The surveys and guides were pilot tested with essential working parents of elementary-aged children attending other Georgia schools.

Focus group topics addressed: selection of the learning modality, satisfaction with the education method and school pandemic response, health care utilization during the pandemic, resources, school communication, child's academic performance, and general child well-being (Table 2).

Procedure

All interviews and focus groups were conducted remotely via Zoom. Verbal consent for participation in and recording of interviews and focus groups

Table 1. School Principal/Assistant Principal Interview Guide

Key Domains	Sample Questions
A. Professional background and job duties	<ul style="list-style-type: none"> • How long have you held your current position? • How have your responsibilities changed since the start of the COVID-19 pandemic?
B. Impact of COVID-19	<ul style="list-style-type: none"> • During the fall semester, how has students' academic performance been affected by the COVID-19 pandemic? • How have the younger students (K-2) been affected mentally or emotionally by the COVID-19 pandemic?
C. Student-parent outreach strategies during COVID-19	<ul style="list-style-type: none"> • Are you using any targeted strategies to assist younger students (K-2) who are falling behind academically or are struggling to keep up with their work due to the COVID-19 pandemic?
D. Public health communication	<ul style="list-style-type: none"> • What information would you specifically like/need from the local or state public health department?
E. Looking forward	<ul style="list-style-type: none"> • What additional supports could be useful for your students? • What additional supports could be useful for parents? • What additional supports could be useful for teachers and other school personnel?

was provided by all participants prior to starting the sessions.

School personnel survey and interviews. School principals were contacted by email to request participation in the study. A financial incentive of \$400 was provided to each of the participating schools upon completion of the survey and all school personnel interviews.

Principals completed the pre-interview surveys in November 2020. In December of 2020, eight semi-structured informant interviews were conducted with a principal and assistant principal from each school. Interviews were attended by one school personnel, one to two research team interviewers (graduate students, faculty, and/or a collaborator from the Georgia Department of Public Health), and one note-taker.

Parent survey and focus groups. Parents/guardians were recruited for the focus groups through existing school outreach methods (email, smartphone apps, flyers, and social media). To reduce possible technology barriers, we queried potential participants about their experience using Zoom, offered assistance if needed, and explained that smart phones could be used. In an effort to recruit more parents/guardians into the study, the financial incentive was raised from \$50 to \$75, and

Table 2. Parent Focus Group Facilitator Guide

Key Domains	Sample Questions
A. COVID-19 and health	<ul style="list-style-type: none"> • How has your child been feeling lately? • Please discuss whether you have concerns about your child contracting COVID-19?
B. School choice/modality/communication	
1. Perceptions of current education method	<ul style="list-style-type: none"> • How is your child doing in school? • How have you adapted when your child has to learn virtually (e.g. school closed unexpectedly, or if your child is quarantined)? • How is your school keeping your children safe from contracting COVID-19?
2. Communication of current education method	<ul style="list-style-type: none"> • How would you describe the ways the school communicates with you in general?
C. Support and barriers to support	
1. Support—what’s working well	<ul style="list-style-type: none"> • What school-related resources have been helpful to you since the start of the COVID-19 pandemic?
2. Barriers to support	<ul style="list-style-type: none"> • Discuss whether your childcare options have been affected by the COVID-19 pandemic?

an additional \$10 incentive was offered to those who successfully referred other parents.

Six focus groups with a total of 26 essential working parents were conducted between March and April of 2021. Before initiating the group discussions, parents completed the online survey. Focus groups consisted of two to six parents, one to two research team interviewers, and a notetaker. The Spanish-speaking focus group was attended by two parents who did not speak English, a native Spanish-speaking facilitator from the research team, and a bilingual note-taker.

Data Analysis

Survey data. Supplemental FRPL data from the Georgia Department of Education (DOE)² were used due to principal reporting inconsistencies. Demographic survey data and the DOE data were analyzed using descriptive statistics.

Qualitative data. All interview and focus group recordings were professionally transcribed to ensure accuracy and completion of the data. The recording of the Spanish-speaking focus group was professionally translated into an English transcription. Study team members confirmed and de-identified each transcript. We used MAXQDA 2020 for data management and analysis.¹⁸

A directed content approach was employed for coding of the data that was guided by the research questions and existing literature.¹⁹ A codebook was developed using a team-based approach in which all team members read an initial set of transcripts, memo-ed, and developed candidate deductive and inductive codes. We applied the initial codebook to transcripts in teams of two and iteratively updated the codebook to form a final codebook, which was applied to the remaining data. After coding was finalized, the authors organized codes into an initial set of themes that reflected findings by the research questions. This thematic approach continued until saturation was reached, and no new themes emerged.

RESULTS

Participant characteristics. Elementary school enrollment in Fall 2020 ranged from 501 to 792 students. Three of the schools reported the proportion of Latinx students as 11% or less, while one school reported a proportion of 75%, and 70% of this school’s students primarily spoke Spanish at home. The student population of one school was majority White at 87%, and one school was majority Black at 74%. Schools reported the majority of students attended in person in Fall 2020 (85-96%). Students eligible for FRPL ranged from 41% to more than 95%² (Table 3).

All focus group participants identified as parents, and all jobs were considered essential as described by the US Department of Homeland Security.²⁰ Forty-six percent of the parents identified as White, 27% Hispanic/Latinx, and 23% Black/African American. The largest represented age group was 30-34 years old (42%). Eighty-five percent of parents were women, and 65% had only one child attending the associated elementary school. About one third (31%), were employed in clinical work (nursing, mental health, and allied health professionals), half (50%) reported working five days a week and 46% worked traditional (9 AM-5 PM) hours. In Spring 2021, 85% of the parents reported their children attended school in-person, 12% in a hybrid fashion (consisting of four days in person and one virtually), and one family (4%) attended virtually only (Table 4).

Themes. Five major themes emerged from our analysis reflecting the perceptions of changes to student learning and behavior related to remote learning during the pandemic (Table 5 for themes and illustrative quotes).

Theme 1: Students Exhibited Declines in Learning When School Was Remote

Most parents and all school personnel commonly reported that children experienced learning losses as a result of the many challenges associated with attending

Table 3. Participating Schools' Student Population Characteristics, Fall 2020

School Location and Geographical Designation	South GA Urban	South GA Rural	North GA Urban	North GA Rural
Total students at school	764	792	501	762
Race and ethnicity				
Black/African American	35%	74%	20%	1%
Hispanic/Latinx	11%	2%	75%	9%
Other	11%	3%	2%	12%
White	43%	20%	2%	87%
Percentage students who primarily speak Spanish at home	2%	2%	70%	0%
Learning mode				
Kindergarten				
In-person	86%	89%	97%	92%
Virtual	14%	11%	3%	8%
Learning mode first grade				
In-person	86%	87%	96%	88%
Virtual	14%	13%	4%	12%
Learning mode second grade				
In-person	79%	89%	95%	93%
Virtual	21%	9%	5%	7%
Total school learning mode				
In-person	85%	90%	96%	90%
Virtual	15%	10%	4%	10%
Percentage students eligible for free and reduced lunch*	41%	> 95%	91%	50%

*Data from Georgia Department of Education.²

school remotely. When conducting virtual calls to students' homes, one school administrator observed that many home environments were often noisy and chaotic and not conducive to virtual learning. In March 2020, to compensate for the many families who lacked the digital resources to fully participate in virtual learning, most administrators reported that their schools offered paper handouts/packets.

In contrast to the majority, a few parents perceived no changes in their children's learning based upon consistent report cards. One parent reported her child excelled with virtual learning, which she attributed to her child's high level of proficiency using her Chromebook.

Upon returning to in-person schooling, administrators reported measured academic declines, as compared to typical outcomes from previous years. One school administrator reported that lower academic achievement standards were used to promote children to the next grade, as educators did not want to evaluate children on material that they simply were not taught. A few educators anticipate that learning gaps will be more prevalent for students who were in kindergarten during remote learning.

Theme 2: Students Displayed Declines in Academic Behavior Related to Remote Learning

When schools only offered remote learning, many parents and school personnel reported a decline in academic behavior such as lower attendance (defined as not logging onto the educational platform), less participation in classroom activities and completion of

schoolwork. Parents described frequent struggles to persuade their children to stay on task.

In Spring 2020, when paper handouts were often employed as a form of remote learning, much of the schoolwork was not turned in. The assignments that were returned were often incomplete or parents sometimes performed the work for their children. Administrators, not parents, reported that many families were struggling with food insecurity during that time; therefore, their children's school participation suffered.

Upon transitioning back to in-person learning, one school personnel noticed that some students were generally more forgetful, which the administrator coined a "COVID fog." These students displayed decreased memory or attention, such as forgetting how to get to their classrooms after several months of being in school, or neglecting to turn in assignments on time. Another school administrator anticipated that first graders will have challenges acclimating to the classroom as a consequence of experiencing less time in traditional school settings. In contrast, a few parents from each focus group, except the lower-income rural school, noted no negative changes in student behavior related to learning remotely.

Theme 3: Technology Was a Major Barrier to Remote Learning Due to Reduced Access and Digital Literacy

Parents and school administrators frequently cited lack of community internet/Wi-Fi access, absence of digital devices, and/or low technological literacy as barriers to virtual learning. Most focus groups and

Table 4. Parent Focus Group Survey Results

Descriptive Category	Percentage (%)	Descriptive Category	Percentage (%)
Parent race and ethnicity		Parent gender	
Black/African American	23	Female	85
Hispanic/Latinx	27	Male	15
Other	4		
White	46		
Parent age (years)		# Work days per week	
18-24	4	2	4
25-29	8	3	12
30-34	42	4	12
35-39	23	5	50
40-44	12	6	8
45-49	12	7	15
Marital status		# Children at this school	
Divorced	12	1 child	65
Married/partnered	69	2 children	19
Single	19	3 children	15
Occupations (top 3)		Work shifts	
Clinical	31	Traditional	46
Housekeeping	12	6 AM-2 PM	8
Teaching	19	2 PM-10 PM	4
		10 PM-7 AM	15
		Rotating	12
		Other	15
Fall 2020 learning mode		Spring 2021 learning mode	
Hybrid	35	Hybrid	12
In-person	39	In-Person	85
Virtual	27	Virtual	4

all schools reported lack of community broadband was a significant challenge. Due to supply shortages, some schools had difficulty obtaining Chromebooks for students and staff. Administrators reported that kindergarten teachers in particular were inexperienced using virtual learning platforms as they are not typically used for instructing younger children. Many parents reported their lack of digital literacy prevented them from effectively assisting their young children with virtual learning.

Theme 4: Student Learning and Academic Behavior Improved Upon Transitioning to In-Person Learning

Parents reported that their children’s learning improved once they returned to school in person. There was a tendency for parents to perceive higher academic gains than was overall reported by school personnel. School personnel described that most students did not meet typical academic milestones compared to historical testing data. One school administrator reported that gains in student learning losses correlated with the amount of time they had been back to school in person.

Parents reported improvements in their children’s academic engagement and overall mood upon returning to school in person. One school reported excellent

attendance in Fall 2020 when most students had returned to in-person learning.

Theme 5: Remote Schooling Posed Unique Challenges for Children and Parents of Certain Populations

Students with disabilities and/or learning differences, students for whom English was a second language and their parents spoke Spanish only, and unmarried/un-partnered essential working parents, all experienced additional struggles with remote learning. These unique barriers rendered virtual learning simply unfeasible for many. Therapies and educational adaptations that are necessary to meet the learning needs of students in special education were not accessible. Parents who only spoke Spanish described technology barriers compounded with language obstacles, preventing their children from participating well in remote schooling. Single parents reported great difficulties managing work duties and overseeing their young children’s virtual learning. This was particularly true during the subsequent, intermittent physical school closings that could occur on very short notice.

DISCUSSION

The goal of this research was to explore the effects of remote education on the learning of young children in Georgia during the early COVID-19 pandemic, from the perspectives of school administrators and essential working parents. Most participants reported that students exhibited declines in learning related to remote schooling. Many children demonstrated suboptimal participation in terms of attendance and completion of schoolwork. This was exacerbated by the fact that in Spring 2020, three out of four schools reported relying heavily on paper handouts, particularly for the younger grades, to compensate for barriers to technology. Specifically, lack of reliable and affordable community broadband, lack of digital devices within the home, and/or low adult technological literacy were reported as barriers to learning. When students returned to in-person school, parents reported improvements in school participation, school performance, and children’s general mood. However, school personnel reported that children still demonstrated learning delays, and some behavioral differences were noted. Additional barriers to remote schooling existed for students with disabilities, students for whom English is a second language and the parents spoke Spanish only, or students whose parent was unmarried or unpartnered.

Curriculum Associates²¹ collected academic testing data of approximately 1.5 million kindergarten through eighth grade students nationwide, from March to June 2021, a year after the initial onset of remote schooling. Despite academic gains, fewer

Table 5. Themes and Illustrative Quotes

Themes	Quotes
Theme 1: Students exhibited declines in learning when school was remote.	<p>“So, when he started back in person, his teacher sort of implied that he probably wasn’t going to make it through kindergarten . . . she was blown away by how little reading comprehension he had.”—Parent</p> <p>“We definitely noticed that students are behind . . . So we are working hard to try to fill those gaps . . . In my personal and professional opinion, it’s going to be several years for us to overcome that.”—Principal</p>
Theme 2: Students displayed declines in academic behavior related to remote learning.	<p>“ . . . we had a lot of issues with attendance . . . I think there were some families that did not take it that seriously as they should have taken it at the time. But I think a lot of people were just mainly concerned about, ‘Am I going to make enough money to put food on the table for my family?’ . . . I just think that for some families, school wasn’t that important at that moment.”—Principal</p> <p>“I noticed that after doing virtual schooling for a couple of weeks, my daughter started to become less enthusiastic about learning, and she seemed to have trouble focusing because she was sitting at the computer screen all day.”—Parent</p> <p>“ . . . as we have gotten them back into school, we have seen some behaviors that we did not see before. And we think it’s stemming from COVID. It does not necessarily mean that they are acting out. It just means they are acting differently.”—Assistant Principal</p>
Theme 3: Technology was a major barrier to remote learning due to reduced access, and digital literacy.	<p>“a 50-minute virtual segment that she’s online with those kids, so much of that time is spent trying to get them to get to the right technology, to access what you need them to access . . . So, I think the actual teaching has suffered just because they do not have as much time to impart knowledge”—Assistant Principal</p> <p>“ . . . a lot of kids do not have access to the internet. You got some kids that do not even have laptops or anything like that to even be able to do their schoolwork at all. So, I know a couple of people . . . in the community, their kids’ grades were going down because they did not have any internet service or a laptop to be able to do their work on. So it’s been difficult with that virtual learning.”—Parent</p>
Theme 4: Student learning and academic behavior overall improved upon transitioning to in-person learning.	<p>“She was so happy to see kids. She did not care that they were all masked up, she did not care that they had partitions up on their desk . . . And then we noticed that was such a big change for her, that she was suffering a little bit more than we realized being virtual.”—Parent</p> <p>“I definitely feel like the students who have been face-to-face with us since August, you are seeing them catch back up.”—Assistant Principal</p>
Theme 5: Remote schooling posed unique challenges for children and parents of certain populations.	<p>“They struggled at the end of the year last year when we did virtual our kids are on the spectrum, so it was just so much more difficult because they have comprehension issues and we were not getting . . . them learning anything. We could not get them to sit still, a lot of meltdowns. And it made everything more difficult for them because they are tactile and everything was virtual. They have a hard time with it, the listening and sitting still and the sensories.”—Parent of children on the autism spectrum</p> <p>“I do not know anything about computers, or phones, or even English. . . . my daughter is not very good at reading. I make her read, but in Spanish, here at home. She doesn’t read in English. She asks me, ‘Mommy, what does that say?’ I tell her, ‘I can teach you in Spanish, but in English, I do not know how.’”—Spanish-speaking parent (translated)</p> <p>“ . . . it was difficult because I’m a single parent, so going to work and asking my sister for help to keep up with the kids and bringing them to my mom’s house. It was such chaos for me because I had to work from 6:00 in the morning to 5:00 in the afternoon, and I would not be able to be with them at the house. So they had to do the first classes at home and then they would have to go to their grandma’s house to do the rest of the day.”—Single parent</p>

students were found to be performing on grade level in reading and math compared to prior school years, and the declines were more pronounced for students in first through third grades.²¹ Inequities were identified as fewer third-grade students were performing on grade level who attended schools with children who were predominantly Black and Latinx, as well as schools located in lower-income neighborhoods.^{9,21}

Barriers to remote learning during the pandemic have highlighted technological access inequities, often referred to as the digital divide. Schools that are less resourced tend to have decreased ability to adequately

offer remote learning, and lower-income families are less likely to have the technology necessary to participate in virtual instruction.^{4,9} The digital divide tends to be more prevalent for students who live in rural areas, and students of racial and/or ethnic minority groups.⁴

Our study has both supporting and conflicting findings compared to the extant literature regarding the digital divide. Parents and school personnel at two of the four participating schools in our study, most frequently reported barriers with digital technology. Similar to existing research, these two schools had

a higher proportion of students eligible for FRPL, which is often used as an approximation for the proportion of students living in poverty at a given school.^{4,9,22,23} Consistent with previous studies, these students attended schools with a predominantly Black or Latinx student population, and the school in our study with the highest reports of digital barriers was located in a rural community.⁴ The other school was located in an urban setting and had the largest proportion of Latinx and Spanish-speaking families and students in our study. According to the 2021 Georgia Broadband Map of the Georgia Department of Community Affairs,²⁴ an area is defined as “unserved” if a broadband capacity is available to less than 80% of sites in a census unit (such as a county). Under this definition, 45% of the rural county, yet only 4% of the urban county of these 2 schools were “unserved.”²⁴ These findings highlight some of the preexisting disparities that have been amplified by remote learning during the pandemic, and have the potential to further widen the existing learning gap.⁹

Strengths

There are several noteworthy strengths of this study. First, gaining the perspectives of both school personnel and parents of the children attending the same schools regarding education during the COVID-19 pandemic is not commonly found in the research literature. Additionally, the participants in this study represented diversity in terms of race, ethnicity, language, location within the state, and geographical designation. These strengths help to broaden our understanding of societal inequities affecting education that should be carefully considered and mitigated during a community’s pandemic response.

Limitations

Despite the strengths of this study, some limitations exist. First, there was an unexpected low recruitment response for Tier-2 essential working parents/guardians. These recruitment challenges resulted in a smaller sample size and created greater variation among parents regarding access to resources than was originally intended. Additionally, our study did not expressly engage in reflexive discussions among the research team acknowledging how our backgrounds might create bias in the project. When studying equity issues, adopting a Public Health Critical Race Praxis approach would be recommended, which endorses practicing reflexivity and acknowledging positionality throughout a research process.²⁵

Conclusions

The findings of this study may be used to understand perceptions of how remote education

affected the learning of young children, identify educational inequities magnified by the COVID-19 pandemic, and thus inform strategies to mitigate them. Our study’s findings support recommendations from the American Academy of Pediatrics,²⁶ that children should physically remain in school as much as is safely possible.

Future research should further identify the barriers to education and wellbeing of children and families during a pandemic response, as well as seek to better understand the consequences of these challenges. This could help to identify approaches to better support students and families, particularly of vulnerable populations, with a school’s emergency/pandemic response.

IMPLICATIONS FOR SCHOOL HEALTH

This study exemplifies the need to develop and implement evidence-based policies and procedures to support schools in continuing to safely provide in-person learning during the remainder of the COVID-19 pandemic. Additionally, the need for school pandemic preparedness plans and emergency funding is evident.

In anticipation that students will likely engage in remote learning sporadically during the remainder of the pandemic, strategies to address equity ought to be employed. These approaches might include advocating for improved broadband infrastructure and increased pandemic-related funding for schools to support at-home devices for students when needed. Additionally, offering robust digital education for parents/guardians and teachers would help reduce the digital divide. During times that remote learning may be implemented, efforts should be made to accommodate essential working parents’ schedules so that they may be available for supervising their young children. Finally, schools should develop a preparedness plan for future pandemics/disasters with an eye on equity for vulnerable populations in the community.

The ongoing and immense challenges of providing children’s education in a pandemic have the potential to further amplify existing inequities and widen the persistent educational gap.⁹ Moving forward, communities can support schools, and collectively strive to protect children’s health, well-being, safety, and education.

Human Subjects Approval Statement

This study was reviewed by the Emory University Institutional Review Board, which determined it to be public health practice and a non-research study.

Conflict of Interest

All authors of this article declare they have no conflicts of interest.

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