

Parents' Experiences with Home-Based Learning During the COVID-19 Pandemic: A Phenomenological Study

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Abstract

The onslaught of COVID-19 placed parents in unfamiliar educational territory. Parents undertook the problematic tasks of instructing, teaching, and supervising their children's online education. Therefore, this study aimed to explore parents' experiences with children's home-based learning during the COVID-19 pandemic. The research used a qualitative phenomenological design to describe parents' roles, support, and challenges as they homeschooled their children. Purposive sampling methods were used to select 10 female participants for the study. Data collection methods included interviews and one focus group. Data analysis included content and thematic assessment to identify patterns in the data, which were organized to make up the findings of this study. Significant findings encompassed parental roles in students' learning, the problems with online learning exhibited by students lagging in completing their assignments, and the stress that both students and parents experienced as students learned at home. The study underscored the need for training parents who choose to homeschool their children and the importance of community training centers.

Keywords: COVID-19, communication, home-based learning, stress, virtual learning

Introduction

On March 11, 2020, the World Health Organization stated that COVID-19 was a pandemic, prompting the closure of businesses and schools to curb its rapid transmission (Education Week, 2020). While schools are responsible for human development and critical to society's recovery (Vegas & Winthrop, 2020), the pandemic and the closure of schools reduced these functions. As a result, millions of children under 18 studied at home. In Michigan, homeschooling jumped from 5.3% at the end of April 2020 to 11.3% by October 12, 2020 (Eggleston & Fields, 2021). Children's instruction had to be shared between teachers and parents, putting educators and parents in an uncharted educational environment. Although studies have highlighted the role of parental involvement in their children's education (Darko-Asumadu & Sika-Bright, 2021; Núñez et al., 2017), in the COVID-19 context, some parents who had no prior inclination to homeschool were co-opted into teaching or supervising their children.

Background

The COVID-19 pandemic had a profound impact on education in all the states in North America. As the surge of infections continued, it was evident that schools would not remain open much longer. Schools had two options for providing instruction: students could learn in-person at school or online at home. Teachers who had typically provided face-to-face instruction found themselves at a loss regarding how to conduct their classes (Heim, 2020). Perplexed school administrators tried to put together strategies for teaching at school and online (Di Pietro et al., 2020). The educators' quandary reflected the unpreparedness of teachers and school districts to handle the pandemic. Two areas had to be addressed, namely, (a) avoiding further spread of the Coronavirus at school for students who preferred in-person learning (Carlson, 2020), and (b) relying on parents to supervise children's learning at home and to ensure students had equitable resources for virtual learning (Friedman et al., 2021).

To curb the spread of COVID-19 in schools, the Center for Disease Control and Prevention provided guidelines, such as wearing masks, physical distancing, handwashing, respiratory etiquette, cleaning and maintaining healthy facilities, and contact tracing in combination with isolation and quarantine

(Center for Disease Control and Prevention, 2021). With the promise of vaccinations becoming available in December 2020, the Center for Disease Control and Prevention produced a “Back to School Planning” document, hoping that schools that strictly adhered to the proposed guidelines would have in-person classes. By February 2021, the Department of Education had published the Ed COVID-19 Handbook (Cardona & Harris-Aitkens, 2021) with strategies for reopening elementary and secondary schools. However, with varied teacher and parental responses to vaccinations and questions about vaccinations for children, there was hesitancy to send children back to school (Prasad, 2021). Parents and school administrators were confused because the guidelines were continually updated (Groom & Childs, 2021).

Many parents preferred to keep their children at home and learn virtually. A national study of 2,155 American parents in 2020, which revealed that over half of schoolchildren learned at home (Henderson et al., 2020). A March 2021 survey by the US Education Department investigating the effect of the pandemic on schools showed that 54% of public schools serving 3,500 4th graders and 3,500 8th graders offered full-time face-to-face classroom learning. However, 40% of the students were learning from home, and 20% participated in both in-person and remote learning (Binkley, 2021). The data also indicated that fewer minority parents (Asians, Blacks, and Hispanics) sent their children to school, preferring to keep them at home even after schools had reopened.

Parents who chose to homeschool were primarily those with low incomes. A study using secondary data by Thornton (2021) from the University of Southern California showed that 61.83% of low-income parents of different races and ethnicities earning less than \$25,000 per year preferred remote learning. In comparison, 17.56% of this group preferred the in-person mode of schooling. In this study, all low-income Asian families earning below \$25,000 chose remote learning for their children compared to 4.76% of parents earning \$25,000 to \$49,000 who chose the in-person mode of schooling. In Michigan, a 3% decline in K-12 public school enrollment indicated that parents wanted to keep their children home to avoid COVID-19. This same Michigan study showed that homeschooling increased even though schools were open for in-person instruction (Musaddiq et al., 2021).

Theories for Parental Involvement in Education

Parental involvement in their children’s education predicts student academic achievement. Various theories underpin parents’ experiences of involvement in children’s education. Pertinent to this study are four theories: The Parental Involvement Process Model (Hoover-Dempsey et al., 2005); Vygotsky’s (1978) Social Development Theory; Walberg’s Theory of Stress Management (1981); and the Theory of Empowerment (O’Byrne, 2018). These theories have implications for this study because parents and children in the COVID-19 learning environment faced multi-dimensional issues that these theories could explain.

The Parental Involvement Process Model espoused by Hoover-Dempsey et al. (2005) combines two elements critical to this study, namely, parental contexts (parents’ behaviors due to their levels of education, self-efficacy in assisting children, time, and culture) and support and collaboration between parents and the school (Hoover-Dempsey et al., 2005). Parental involvement in children’s learning includes providing structure at home for learning, hands-on assistance, and engaging in academic socialization as parents discuss aspirations for their children and other school-related issues (Katenga & Burton, 2019). Hoover-Dempsey et al. (2005) also argued that due to employment demands, time constraints often resulted in little or no parental involvement. While most parents, regardless of their contexts, socialize their children for holistic development (Taylor et al., 2005), the COVID-19 learning environment pushed parents to provide direct hands-on assistance and supervision of learning at home (Ribeiro et al., 2021).

Vygotsky’s (1978) Social Development Theory, which proposes that learning occurs when students socially interact and collaborate with knowledgeable instructors, is a relevant theory for social cognitive development. The Zone of Proximal Development is Vygotsky’s most significant theory, which focuses on what children can do by themselves, and what they can accomplish with guidance. This theory is significant if parents have the skills to help their children to learn new concepts.

A third theory that has implications for home learning is the theory of stress. Lazarus (1974) defined stress as the tension arising from apparent challenges one faces, and the perceived resources needed to deal with the challenges. Psychological Stress Theory has two interrelated concepts that define stress processes. First, the Appraisal process allows people to analyze how they are affected by stress and the relevance of the issues. If negative, individuals evaluate whether they have adequate resources for coping with the stress. Second, an individual focuses on Coping, a mechanism for dealing with the challenging problem. Coping depends on the individual's personality, the complexity of the situation, and the resources for coping with the stress. This theory was significant for parents stressed on account of the pandemic, as they had been thrust into unfamiliar educational territory (Adams et al., 2021).

Social workers describe empowerment with the connotation that individuals take control of their lives and can act towards achieving a goal. In terms of education, O'Byrne connected empowerment to social relationships in an organization while addressing issues of resources. The goal was to facilitate "participation and collaboration of individuals within an organizing structure to focus their efforts on an identified outcome or common goal" (O'Byrne, 2018). However, the processes toward achieving the goals can disenfranchise the educational actors. Since parents are expected to help teachers, the question of the empowerment of parents to achieve education goals is essential.

Home-Based Learning Challenges during COVID-19 Pandemic

The literature indicates that parents struggled with the responsibilities of supervising learning during the pandemic because they were unprepared for it or did not have adequate support (Freisthler et al., 2021). Both well-educated and less educated parents struggled to support their children during the pandemic (Vogelbacher & Attig, 2022). Other issues made learning at home difficult. First, the home environment was not conducive to learning, especially for families of low socioeconomic status. A study in the UK indicated that during COVID-19, children learning at home had inadequate space for learning. Many children had small noisy, restrictive spaces (Easterbrook et al., 2022). Second, parents found it difficult to supervise their children, especially if the children in a home were at various levels of learning. A study of 122 US parents showed that parents struggled to help their children study multiple subjects. Third, parents found balancing employment demands and children's educational needs to be challenging. Factoring the learner-supervisor job into their existing work and home routines was incredibly stressful (Garbe et al., 2020; Vogelbacher & Attig, 2022). In addition, a longitudinal study of 433 US parents of children aged five to 18 conducted by Adams et al. (2021) revealed that 71% of the parents had more elevated stress levels than before the pandemic. This stress resulted from changes in their routines and their worry about virtual learning demands. Unfortunately, parental frustration and anxiety can transfer to and affect children, especially when parents use harsh words or abusive actions to censure children (Humphreys et al., 2020). Furthermore, supervising children in a virtual learning mode took a toll on parents because some of them lacked skills for assisting and instructing children how to use technology.

The pandemic exacerbated other existing problems of low-income households. Specifically, the pandemic exposed the digital divide and the technological disparity between middle/high economic status and low socioeconomic households. A study by Anderson (2019) showed that 17% of US households had no Internet but used their smartphones. Auxier and Anderson (2020) indicated that children aged six to 17 from households with incomes of \$30,000 a year had difficulties doing homework because they lacked access to high-speed Internet. Correspondingly, 45% of Michigan families who earned less than \$25,000 a year and 38% of rural households also required high-speed Internet (Hampton et al., 2020).

The above problems affected students' academic achievements during the Coronavirus pandemic. Literature shows that minimal learning took place at home during the pandemic. Students were behind in math and reading compared to previous years (Dawson, 2021). The i-Ready study of students in grades 2, 4, and 6 in Michigan highlighted students' failure to make up missing classwork because of the disruptions. A corresponding i-Ready study compared Grades 1-8 previous

performance from 2017 to 2019 with that during 2020–2021. The study found that fewer students in lower-income districts performed at their grade level during the pandemic (Strunk 2021). Donnelly et al. (2021) attributed poor learning at home to parents' low level of education. On the other hand, Garbe et al. (2020) credited children's low performance to demotivation and lack of interest in studying because of the long hours of virtual learning.

Support for Parents

Although school closures during the pandemic disrupted many school functions, school districts supported parents whether their children were learning in person or virtually. School support included electronic gadgets such as Chromebooks, laptops, and iPads to bridge technological gaps (Richards et al., 2021). Teachers also communicated with students and parents via social media (Garbe et al., 2020). Apart from academic support, the National School Lunch Program continued to provide meals to public schools to prevent malnutrition and curb misbehavior, ensuring that students operated at their optimum cognitive capacity. Safety measures and strategies for meal distribution were in place, and parents who chose to homeschool picked up food from their schools (Cardona & Harris-Aitkens, 2021).

On the contrary, some parents complained about a lack of support regarding how to assist children at home. A study of 162 US mothers indicated that 30% of participants complained of not getting adequate school instruction on strategies for monitoring their children at home (Sonnenchein et al., 2021). In addition, despite receiving electronic gadgets, some low-income students struggled because they lacked access to Wi-Fi (Richards et al., 2021).

Purpose of Study

Given these data, this study aimed to explore family experiences as they navigated the familiar and unfamiliar territory of home-based learning during the COVID-19 pandemic. Specifically, the study investigated parental perspectives regarding involvement in their children's learning and the challenges that families faced when taking on responsibility for their children's learning during the Coronavirus pandemic.

Research Questions

1. What role did parents play in children's learning during the COVID-19 pandemic?
2. What support systems were available to parents and their children during the COVID-19 pandemic?
3. What were the challenges of long-distance learning during COVID-19?

Significance of the Study

While many studies have been conducted on COVID-19's effects on education ((Auxier & Anderson, 2020; Di Pietro et al., 2020; Donnelly et al., 2021; Strunk, 2021), this study specifically aimed to describe the experiences of parents in one US county to ensure that the lessons learned would be used in improving the delivery of education services during pandemics in that county. Furthermore, the school district would use the findings to strategize how to assist and train parents who chose to homeschool their children.

Research Design

The study used a qualitative phenomenology design to describe people's lived experiences (Qutoshi, 2018; van Manen, 2017). In addition, the phenomenological approach aimed at finding individual participants' realities. This method is contrary to other qualitative methods that seek to reach saturation of themes during data analysis to indicate an in-depth understanding of the phenomenon. This study focused on describing and interpreting how parents experienced their children's learning during the pandemic and how the pandemic affected households.

Participants and Sampling Methods

Various authors have indicated that phenomenology studies have fewer participants if they provide relevant in-depth information about their experiences. Ellis (2016) suggests six to 20 participants. Therefore, 10 female parents of children aged five to 17 from Berrien Springs County, Michigan, participated in this study. Female parents were chosen because literature indicates that more women homeschooled than men (Zamarro et al., 2020). A British study showed that 67% of female participants homeschooled their children compared with 52% of males during the pandemic (Williams et al., 2020).

Two types of purposive sampling methods (Patton, 1990) were used. The researchers purposefully decided on parents of elementary and secondary school-aged children because children at these ages need assistance with their learning. Secondly, “snowballing” (Patton, 1990) purposive sampling was used where interviewees suggested or identified other mothers from the Berrien County Schools who could participate in the study.

Data Collection and Analysis Procedures

Data collection methods included interviews and a focus group. Participants were contacted by phone because of the government mandate of social distancing due to the COVID-19 pandemic. A consent form was emailed to participants, who were requested to email back their responses. The consent form also served as a data collection tool for demographic information (age, gender, race and ethnicity, education, grade, and employment). Before the interview, participants were asked to consent to the interview verbally. Each interviewee was given a pseudo name for their child to ensure confidentiality. An interview protocol was used as an interview guide (Table 1). The protocol included open-ended semi-structured questions that allowed the participants to provide their views regarding the issues. The protocol also enabled the interviewer to ask follow-up questions according to interviewee responses. Only one focus group comprising three women was conducted. The focus group interview questions came from the themes that emerged from the second round of data analysis. The purpose of the focus group interview was to confirm the emerging themes from the data analysis. Each interview was recorded and transcribed, and the data were stored online in the cloud.

Table 1 *Interview Questions*

No	Questions
1	How has COVID-19 affected your children’s learning?
2	How has in-person schooling or distance learning at home affected you and the children?
3	What role are you playing in your children’s education?
4	What resources do you have for online learning?
5	What support are you getting for your children’s education (school, community)?
6	What challenges have you faced in your involvement with your children’s education during the pandemic?

The analysis process took place concurrently with data collection. According to Qutoshi (2018, p. 219), “data collection and meaning-making in phenomenological research take place simultaneously.” Notes of important messages were written during interviews. The researchers conducted a content and thematic analysis of the passages. Coding, a type of analysis, identifies and organizes common features or passages into themes. Before the coding, researchers listened to each recording to find themes that connected patterns or discordant messages. The transcripts were coded online using Google drive so that all the researchers could participate, discuss, and comment on the emergent codes and themes. The coding process included comparing sentences with sentences, paragraphs with paragraphs, and themes with themes (Saldaña, 2013). In addition, researchers also compared interviewees’ experiences. The codes and themes were color-coded for easy categorizing. Some of the

themes used Nvivo codes (participants' phrases). The write-up that followed the coding process included variant voices to ensure that all participants' perspectives were represented.

The findings' trustworthiness (credibility and reliability) was established by gathering data using different methods including individual interviews and focus groups. In addition, three researchers participated in data collection and analysis and discussed the importance of each emergent theme. Throughout the data collection and analysis processes, notes of essential ideas, emergent themes, and categories were written in a journal on Google drive. Three methods were used to confirm the findings. First, a record of steps taken to collect and analyze data for discussion and reflection on researcher decisions during the study was kept. Second, the focus group session verified the findings from the interviews. In addition, all the results were peer-reviewed by two teachers who teach both in-person and virtual classes.

Findings and Discussion

This section is a combination of findings and discussion organized according to themes from the results. Theme 1 delineates the demographics. Themes 2, 3, and 4 align with Research Questions 1, 2, and 3. Theme 5 (Benefits of Online Learning) is an unexpected finding from the data analysis.

Theme 1: Demographics

Eight participant mothers had a high school education, while two mothers had college degrees. Eight of these mothers worked in the health sector as nurses or caretakers, and two mothers were college students. The children's levels of education in these families ranged from kindergarten to Grade 11. All participants were of low socioeconomic status, a finding similar to Thornton's (2021), which indicated that many parents who chose virtual learning at home were of low socioeconomic status.

Theme 2: Parents' Role

Parental support emerged as a critical factor in students' academic progress. All the parents played various roles, from monitoring, teaching, interacting and providing a place for studying and academic socializing with the children. In some cases, parents provided direct help when they stepped in as teachers to assist their children with the assignments. Two critical roles all parents undertook were to help children keep focused on the assignments and to encourage children to overcome the stress of COVID-19. However, creating an environment for learning in the home was difficult. Several homes had small living spaces with no or little space for learning and working on assignments. The findings regarding parents' roles echoed Hoover-Dempsey et al. (2005) discussion on parental involvement roles in children's education—academic socialization, supervision, provision of space for studying, and hands-on assistance with assignments. While academic socialization encourages children to do better in school (Taylor et al., 2005), this was challenging with children in close proximity, each vying for parental attention. In addition, parents had to contend with helping children who were bored because of isolation.

Theme 3: Support for Parents

Almost all the schools in Berrien County had very supportive principals. They provided psychological assistance through the school counselors. In addition, students received technological support from the schools, specifically, iPads and laptops. Although there were children who sat in parking lots to access the Internet, as reported by their mothers, the participants' children did not face this problem. The analysis also revealed that some families needed support to alleviate the financial strain caused by reduced income during the pandemic. This support came from the continuation of school lunches mandated by the government and food provided weekly by churches. Some churches provided ways for children to socialize. The literature shows that altruism increases during a catastrophe, and churches worked to help those struggling financially (Vieira et al., 2020).

Theme 4: Challenges of Distance learning

Difficulty in Supervising Learning

The Zone of Proximal Development (Vygotsky, 1978) suggests that children learn better when helped by a knowledgeable other (teacher or peer), but providing instruction was difficult for parents who lacked pedagogical and subject knowledge. Two parents stated that they lacked knowledge of the subjects; therefore, it was challenging to tutor their young children. They even struggled more with teaching kids who were in lower elementary schools. Parents spoke of how much more difficult the subjects were than they had experienced in their schooling. Sasha's mother stated,

I am struggling because I lack the knowledge for tutoring second grade; it wasn't that hard in my time, the way it is now. Because for the little one, I have to sit down and explain. It is hard. I need to ask the teachers.

In addition to Vygotsky's theory, Hoover-Dempsey et al. (2005) indicated that parents with low self-efficacy because of their socioeconomic status and low levels of education fail to get involved in assisting with academics. It is important to note that three parents in this study consulted with teachers before they could tutor their children.

Children are Behind with Schoolwork

Parents indicated that their children were significantly behind in their studies. Seven parents stated that poor academic progress was due to the following interrelated reasons: (a) insufficient monitoring because of parents' lack of time, (b) children wasting time playing on computers on non-academic sites during school time, and (c) missing online classes because they didn't know how to into their classes. Two parents had difficulties monitoring their children on the computer. One of these families had three children, and the second grader went on other websites, YouTube, or game sites instead of the school sites during school hours. Alby's mother gave a reason this was a problem. "My three children made poor progress and even missed online classes because I was at work, and they were online but not doing schoolwork." This finding reflected the results obtained by Zhu et al. (2021), which highlighted that a lack of parental supervision aggravated children's use of gaming sites and increased the use of non-academic websites. Unfortunately, some mothers and children were not technologically savvy. One student had difficulties with logging into coursework and thus lagged in submission of assignments.

Parents felt that the pace of online learning was sometimes too rapid. Sasha's mother complained that the amount of reading "is very challenging for the 11-year-old." She further explained, "Sasha will have to take a significant part of the summer to pass. Sasha needs high-level monitoring. We work and do not have the time; we also have two other children." John's mother blamed his low grades on online teaching. She stated, "the different learning modes affected the grades of the kids who didn't like online learning. We noticed the changes in their grades." The Michigan University i-Ready study affirmed these findings. Strunk's (2021) study found that Michigan students were behind in their learning and unable to complete their assigned lessons during the pandemic. Any slight changes in school schedules or amount of work can cause poor academic performance. Dorn's (2015) work also supported this finding. He indicated that schools should plan schedule changes to ensure children have adequate time to work and focus on their lessons. During the COVID-19 pandemic, schools expected students to virtually do the same work that they did at school despite the changes in learning structure from in-person to virtual learning.

Communication

While some schools emphasized communication, Edward's mother had difficulties getting instruction from teachers regarding the lessons, assignments, and how to help Edward succeed. Communication was unclear from the teachers, and parents were not getting enough feedback. Parents did not have critical information and did not know how to help their children. Two other mothers who had elementary-aged children voiced this sentiment. Communication and collaboration are vital between teachers, parents, and students to ensure younger students' success. The Theory of

Empowerment (O'Byrne, 2018) suggests that actors need resources. Hence, knowledge, participation, and collaboration are vital for children's academic success. The communication processes during the pandemic disempowered many mothers who needed information, skills, and guidance from schools to supervise their children effectively. Hoover-Dempsey et al. (2005) affirmed that parents cannot have the self-efficacy needed for parental involvement in children's learning without adequate teacher communication.

Stress Experienced by Both Parents and Children

As a result of virtual learning, parents needed to change their schedules to accommodate the need to supervise their children. Parents had to put their children's schedules and needs above their own to help children take virtual classes. Caring for children perplexed and stressed parents, especially if they had to change their schedules or cancel work to monitor their children or transport them to school. Anna's mother did not know how to solve this problem.

Right now, I don't know what I'm gonna do for the rest of this semester. I'm going to start work as early as 7:45. Yet, the school is not open until 7:55 a.m. That is a huge challenge for me.

In addition, parents also had to take extra precautions in their workplaces to avoid being laid off or infected with COVID. COVID-19 infection would impact parents' work and their children's schooling as parents would have to remain in quarantine. The Theory of Psychological Stress by Lazarus (1974) indicates that a stressed person must analyze the situation and find a coping mechanism. Nonetheless, parents could not find solutions to all their problems.

COVID-19 produced fear and anxiety as families experienced environmental changes and unending COVID-19 occurrences. Parents and children were affected when they heard of cases in their social circles or relatives who had succumbed to the virus. Children's fear of contracting COVID-19 at school, the fear of long hours of isolation separated from family and friends, and the fatigue of long hours online resulted in emotional problems. Spinelli et al. (2020) argued that children exhibit emotional distress when frustrated. One child acutely felt the absence of bonding time with family. Edward's grandmother discussed her grandson's distress in the following sentence.

Edward is missing the fun things with grandma now that I fully assist him with online learning. We both experience frustration because of long hours spent trying to complete his assignments, and he would have to work through the summer.

Isolation was another reason parents and children were stressed. Every parent spoke of the theme of isolation because children could not be with their friends. Three parents—Lendar's mother, Lorry's mother, and Baxter's mother—had children who experienced depression because of isolation. Two other families discussed mental health challenges and acute depression that needed hospitalization. Lera's mother talked of her isolation for two and a half weeks because of family members who had severe COVID. She explained, "There are so many people dying from that, right? And it is depressing. People get mad because you can't do stuff, but you'd rather have life." The literature acknowledges that the pandemic has stressed children and parents because of social distancing and isolation (Vogelbacher & Attig, 2022).

Theme 5: Benefits of Online Learning

COVID-19 affected academic progress in diverse ways. While the presence of COVID-19 has disrupted people's lives, there have been some benefits to virtual learning. Children and parents have had bonding time. Some parents commented that they needed to re-evaluate their lives and revise their schedules. Another benefit to online learning during COVID-19 was that some children excelled in school because they had adequate time to work independently. Five of the children did very well during COVID-19 because they had more one-on-one assistance from parents and support from teachers. Andrew's mother shared that he was able to turn his grades around because of the constant support from the educators at his school. Sibley et al. (2017) suggests that out-of-school students do well when they receive comprehensive support. In addition, Cherry's mother indicated that her

daughter excelled because of freedom from distraction by friends and increased self-sufficiency. This finding mirrored the results of Frisby et al. (2018) that peer and instructor behavior in the classroom can distract students from learning.

Limitations and Recommendations

The study used a phenomenological research design, and thus it was limited to a few participants. More participants would be needed to understand parents' experiences with home-based learning parents during the pandemic. The sample in this research was restricted to female parents. In addition, the pandemic made data collection difficult because of physical distancing and parental busyness.

Although the schools could solve the challenges discussed above, it is essential to have community-based organization centers that link parents and schools. The center would be a place where parents could get relevant information on health issues, where poor students could access the Internet, where parents and others could get technological training, where parents could be trained in how to homeschool or learn skills that are needed during disasters and pandemics, and where health professionals could provide free emotional support to stressed students and families.

After the COVID-19 pandemic, teachers must be trained to provide online support to parents. In addition, teachers should evaluate students' virtual learning requirements, learning styles, and how they can best improve their teaching strategies to address the needs of diverse students. Diversifying teaching methods would ensure students' academic success while learning online. Furthermore, communication and collaboration with parents are essential for children's success. Elementary schools should implement strategies and protocols for communicating with parents of young children to ensure that all collaborators understand children's needs and how to assist them. Furthermore, future studies should use other research designs that include a more comprehensive sample comprised of male parents, teachers, and headteachers, to understand better how people at different levels experience pandemics.

Conclusions

Home-based learning during the COVID-19 pandemic has given parents a new but stressful experience. Many parents undertook the supervision of their children's learning with little preparation, and their roles included supervising online learning, keeping children focused on learning, and ensuring that assignments were completed. The schools provided support; however, communication from schools was problematic as some parents did not get adequate information on how to help their children. The study also revealed that isolation and virtual learning were the most stressful aspects of home-based learning for both parents and children. Unfortunately, students were expected to complete the curriculum despite changes in the learning structure. Consequently, most students could not complete their assignments because of their length and fatigue from online learning. Furthermore, this study highlighted the challenges that parents, students, and teachers faced during the COVID-19 pandemic and the need for schools to develop policies and strategies for addressing future upheavals that affect student learning.

References

- Adams, E. L., Smith, D., Caccavale, L. J., & Bean, M. K. (2021, April 8). Parents are stressed! Patterns of parents' stress across COVID-19. *Frontiers in Psychiatry*. <https://doi.org/10.3389/fpsy.2021.626456>
- Anderson, M. (2019, June 13). *Mobile technology and home broadband 2019*. Pew Research Center. <https://www.pewresearch.org/internet/2019/06/13/mobile-technology-and-home-broadband-2019/>
- Auxier, B., & Anderson, M. (2020, March 16). *As schools close due to the Coronavirus, some US students face a digital 'homework gap'*. Pew Research Center. <https://www.pewresearch.org/fact-tank/2020/03/16/as-schools-close-due-to-the-coronavirus-some-u-s-students-face-a-digital-homework-gap/>
- Binkley, C. (2021, May 6). *Remote learning still widespread even after Biden hits goal*. PBS News Hour. <https://www.pbs.org/newshour/education/remote-learning-still-widespread-even-after-biden-hits-goal>
- Cardona, M. A., & Harris-Aitkens, D. M. (2021). *Ed COVID-19 Handbook: Strategies for safely reopening elementary and secondary schools* (Vol. 1). US Department of Education. <https://www2.ed.gov/documents/coronavirus/reopening.pdf>

- Carlson, J. (2020, September 29). *Minnesota schools grapple with shifts in COVID-19 cases*. StarTribune. <https://www.startribune.com/in-class-virtual-hybrid-schools-watch-COVID-19-data-to-decide/572568052/>
- Center for Disease Control and Prevention (CDC). (2022). *Operational guidance for COVID-19 prevention in K-12 school and the early care education programs to support safe in-person learning*. <https://www.cdc.gov/coronavirus/2019-ncov/community/schools-childcare/k-12-guidance.html>
- Darko-Asumadu, D. A., & Sika-Bright, S. (2021). Parental involvement and pupils' academic performance in the Cape Coast Metropolis, Ghana. *Open Education Studies*, 3, 96–109. <https://doi.org/10.1515/edu-2020-0142>
- Dawson, M. (2021). *The impact of COVID-19 on student academic growth in 2020-2021* (Curriculum Associates Research Report No. 19). Curriculum Associates. <https://www.curriculumassociates.com/-/media/mainsite/files/i-ready/iready-covid-growth-research-paper-2021.pdf>
- Di Pietro, G., Biagi, F., Costa P., Karpiński Z., Mazza, J. (2020). *The likely impact of COVID-19 on education: Reflections based on the existing literature and recent international databases* Publications Office of the European Union. <https://publications.jrc.ec.europa.eu/repository/handle/JRC121071>
- Donnelly, R., Patrinos, H. A., & Gresham, J. (2021). *The impact of COVID-19 on education: Recommendations and opportunities for Ukraine*. The World Bank. <https://www.worldbank.org/en/news/opinion/2021/04/02/the-impact-of-covid-19-on-education-recommendations-and-opportunities-for-ukraine>
- Dorn, C. J. (2015). *Research of scheduling impact on student academic performance* [Master's thesis, University of Wisconsin-River Falls, USA]. <https://minds.wisconsin.edu/bitstream/handle/1793/73988/ChanyDorn.pdf>
- Easterbrook, M. J., Doyle, L., Grozev, V. H., Kosakowska-Berezecka, N., Harris, P. R., & Phalet, K. (2022). Socioeconomic and gender inequalities in home learning during the COVID-19 pandemic: Examining the roles of the home environment, parent supervision, and educational provisions. *Educational Development Psychologist*. <https://doi.org/10.1080/20590776.2021.2014281>
- Education Week. (2020, July 1). *The Coronavirus spring: The historic closing of US schools (A Timeline)*. <https://www.edweek.org/leadership/the-coronavirus-spring-the-historic-closing-of-u-s-schools-a-timeline/2020/07>
- Eggleson, C., & Fields, J. (2021). *Census bureau's household pulse survey shows significant increase in homeschooling rates in Fall 2020*. United States Census Bureau. <https://www.census.gov/library/stories/2021/03/homeschooling-on-the-rise-during-covid-19-pandemic.html>
- Ellis, P. (2016). *Understanding research for Nursing Students* (3rd Ed.). Sage Publications.
- Freisthler, B., Gruenewald, P. J., Tebben, E. McCarthy, K. S., & Wolf, J. P. (2021). Understanding at-the-moment stress from parents during COVID-19 stay-at-home restrictions. *Social Science & Medicine*, 279, 1–8. <https://doi.org/10.1016/j.socscimed.2021.114025>
- Friedman, J., York, J., Mokdad, A. H., & Gakidou, E. (2021). US children "Learning Online" during COVID-19 without the internet or a computer: Visualizing the gradient by race/ethnicity and parental educational attainment. *Socius: Sociological Research for a Dynamic World*, 7, 1–3. <https://doi:10.1177/2378023121992607>
- Frisby, B.N., Sexon, B., Buckner, M., Beck, A. C., & Kaufmann, R. M. (2018). Peers and instructors as sources of distraction from a cognitive load perspective. *International Journal for the Scholarship of Teaching and Learning (iJSOTL)*, 12(2), 1–10 (Article 6). <https://doi.org/10.20429/ijstotl.2018.120206>
- Garbe, A., Ogurlu, U., Logan, N., & Cook, P. (2020). COVID-19 and remote learning: Experiences of parents with children during the pandemic. *American Journal of Qualitative Research*, 4(3), 45–65. <https://doi.org/10.29333/ajqr/8471>
- Groom, A. A., & Childs, J. (2021). We need to do better by kids: Changing routines in US schools in response to COVID-19. *Journal of Education for Student Placed at Risk*, 26(2), 135–156. <https://doi.org/10.1080/10824669.2021.1906251>
- Hampton, K., Frendez, L., Robertson, C., & Bauer, J. M. (2020, December 15). *Repercussions of poor broadband connectivity for students in rural and small-town Michigan*. TPRC48: The 48th Conference on Communication, Information, and Internet Policy. <http://dx.doi.org/10.2139/ssrn.3749644>
- Heim, J. (2020, September 23). *Pandemic teaching: In their words*. The Washington Post. <https://www.washingtonpost.com/education/2020/10/06/teacher-pandemic-essays/?arc404=true>

- Henderson, B. H., Peterson, P. E., & West, M. R. (2020). Pandemic parent survey finds perverse pattern: Students are more likely to be attending school in person where COVID-19 is spreading more rapidly. *Education Next*, 21(2), 34–49. <https://www.educationnext.org/pandemic-parent-survey-finds-perverse-pattern-students-more-likely-to-be-attending-school-in-person-where-covid-is-spreading-more-rapidly/>
- Hoover-Dempsey, K. V., Walker, J. M. T., Sandler, H. M., Whetsel, D., Green C. L., Wilkins, A. S., & Closson, K. (2005). Why do parents become involved? Research findings and implications. *The Elementary School Journal*, 106(2), 105–130. <https://doi.org/10.1086/499194>
- Humphreys, K. L., Myint, M. T., & Zeanah, C. H. (2020). Increased risk for family violence during COVID-19 pandemic. *Pediatrics*, 146(1), e20200982. http://publications.aap.org/pediatrics/article-pdf/146/1/e20200982/1079524/peds_20200982.pdf
- Katenga, J. E., & Burton, L. D. (2019). One purpose, multiple realities: Parental involvement in two Malawian private secondary schools. *Human Behavior, Development and Society*, 20(1), 39–50. <https://so01.tci-thaijo.org/index.php/hbds/article/view/157811>
- Lazarus, R. S. (1974). Psychological stress and coping in adaptation and illness. *International Journal of Psychiatry in Medicine*, 5(4), 321–333. <https://doi.org/10.2190/T43T-84P3-QDUR-7RTP>
- Musaddiq, T., Stange, K., Bacher-Hicks, A., & Goodman, J. (2021). *The pandemic's effect on demand for public schools, homeschooling, and private schools: Policy Brief 2021*. Education Policy Initiative, University of Michigan. https://edpolicy.umich.edu/sites/epi/files/2021-09/pandemic_effect_sept2021_final.pdf
- Núñez, J. C., Epstein J. L., Suárez, N., Rosário, P., Vallejo, G., & Valle, A. (2017, July 27). *How do student prior achievement and homework behaviors relate to perceived parental involvement in homework?* *Frontiers in Psychology*. <https://doi: 10.3389/fpsyg.2017.01217>
- O'Byrne, I. (2018). *What is "empowerment" in education.* <https://wiobyrne.com/empowerment/>
- Patton, M. (1990). *Qualitative evaluation and research methods*. Sage Publications.
- Prasad, V. (2021, February 3). *Kids don't need COVID-19 vaccines to return to school.* STAT. <https://www.statnews.com/2021/02/03/kids-dont-need-COVID-19-vaccines-to-return-to-school/>
- Qutoshi, S. B. (2018). Phenomenology: A philosophy and method of inquiry. *Journal of Education and Educational Development*, 5(1), 215–222.
- Ribeiro, L. M., Cunha, S. R., Andrade e, S., M. C., Carvalho, M., & Vital, M. L. (2021). Parental involvement during pandemic times: Challenges and opportunities. *Education Science*, 11(6), 302. <https://doi.org/10.3390/educsci11060302>
- Richards, E., Aspergren, E., & Mansfield, E. (2021, February 4). *A year into the pandemic, thousands of students still can't get reliable Wi-Fi for school. The digital divide remains worse than ever.* USA Today, Education. <https://www.usatoday.com/story/news/education/2021/02/04/covid-online-school-broadband-internet-laptops/3930744001/>
- Saldaña, J. (2013). *The coding manual for qualitative researchers*. Sage Publications Ltd.
- Sibley, E., Theodorakis, M., Walsh, M.E., Foley, C., Petrie, J., & Raczek, A. (2017). The impact of comprehensive student support on teachers: Knowledge of the whole child, classroom practice, and teacher support. *Teaching and Teacher Education*, 65, 145–156. <https://doi.org/10.1016/j.tate.2017.02.012>
- Sonnenschein, S., Grossman, E. R., & Grossman, J. A. (2021). US parents' reports of assisting their children with distance learning during COVID-19. *Education Sciences*, 11(9), 501–515. https://www.researchgate.net/publication/354416257_US_Parents'_Reports_of_Assisting_Their_Children_with_Distance_Learning_during_COVID-19
- Spinelli, M., Lionetti, F., Pastore, M., & Fasolo, M. (2020). Parents' stress and children's psychological problems in families facing the COVID-19 outbreak in Italy. *Frontiers in Psychology*, 11, 1713. <https://doi.org/10.3389/fpsyg.2020.01713>
- Strunk, K. O. (2021). *Michigan K-12 Education: Learning during the Pandemic* [PowerPoint slides]. Education Policy Innovation Collaborative. https://epicedpolicy.org/wp-content/uploads/2022/05/Benchmark3_MSTEP_05062022_FINAL.pdf
- Taylor, L. C., Clayton, J. D., & Rowley, S. J. (2005). Academic socialization: Understanding parental influences on children's school-related development in the early years. *Review of General Psychology*, 8(3), 163–178. <https://doi: 10.1037/1089-2680.8.3.163>
- Thornton, M. (2021, March 29). *Who wants what? Examining schooling modality survey data by race, income, and education level.* EdArXiv Preprints. <https://doi.org/10.35542/osf.io/dbqm3>
- van Manen, M. (2017). But is it phenomenology? *Qualitative Health Research*, 27(6), 775–779. <https://doi: 10.1177/1049732317699570>

- Vieira, J. B., Pierzchajlo, S., Jangard, S., Marsh, A. A., & Olsson, A. (2020, July 24). *Perceived threat and acute anxiety predict increased everyday altruism during the COVID-19 pandemic*. PsyArXiv Preprints. <https://doi.org/10.31234/osf.io/n3t5c>
- Vegas, E., & Winthrop, R. (2020). *Beyond reopening schools: How education can emerge stronger than before COVID-19*. Brookings. <https://www.brookings.edu/research/beyond-reopening-schools-how-education-can-emerge-stronger-than-before-COVID-19>
- Vogelbacher, M., & Attig, M. (2022). Carrying the burden into the pandemic—Effects of social disparities on elementary students' parents' perception of supporting abilities and emotional stress during the COVID-19 Lockdown. *Frontiers in Psychology*, 12, 750605. <https://www.frontiersin.org/article/10.3389/fpsyg.2021.750605>
- Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes*. Harvard University Press
- Walberg, H. J. (1981). A psychological theory of educational productivity. In F. H. Farley & N. Gordon (Eds.), *Psychological and Education* (pp. 81–110). National Society for the Study of Education.
- Williams, T., Mayhew, M., Lagou, M., & Welsby, M. (2020). *Coronavirus and homeschooling in Great Britain: April to June 2020*. Office of National Statistics, UK. <https://www.ons.gov.uk/releases/coronavirusandhomeschoolinggreatbritainapriltojune2020>
- Zamarro, G., Perez-Arce, F., & Padros, M. J. (2020, June 18). *Gender differences in the impact of COVID-19 and educational provisions*. KTLA. https://ktla.com/wp-content/uploads/sites/4/2020/06/ZamarroGenderDiffImpactCOVID-19_061820-2.pdf
- Zhu, S., Zhuang, Y., Lee, P., Li, J.C-M., & Wong, P.W.C. (2021). Leisure and problem gaming behaviors among children and adolescents during school closures caused by COVID-19 in Hong Kong: Quantitative cross-sectional survey study. *JMIR Publication*, 9(2), e26808. <https://games.jmir.org/2021/2/e26808/>