

# **Shifting routines among families with school-age children with disabilities due to mandatory school closures during the COVID-19 pandemic in Québec, Canada**

## **Changement des routines chez les familles avec des enfants d'âge scolaire ayant des handicaps en raison des fermetures d'écoles obligatoires pendant la pandémie de COVID-19 au Québec, Canada**

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Article abstract

This study explored the changes in routine and the social and emotional impacts experienced by families of children with parent-reported learning differences or disabilities ("disabilities") due to mandatory school closures during COVID-19 in Québec, Canada. A questionnaire was used to compare the family routines of 20 participants before and after the school closures. The study's findings highlight an overall concern regarding outcomes of long-term school closures. Family routines after the school closures included increased technology usage, decreased socialization, a cease or decline of extracurriculars and therapies, and an increase in symptoms of depression and anxiety among this cohort. The authors suggest enhanced support services, including psychosocial services and financial aid, to mitigate potential negative outcomes.



# SHIFTING ROUTINES AMONG FAMILIES WITH SCHOOL-AGE CHILDREN WITH DISABILITIES DUE TO MANDATORY SCHOOL CLOSURES DURING THE COVID-19 PANDEMIC IN QUÉBEC, CANADA

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**ABSTRACT.** This study explored the changes in routine and the social and emotional impacts experienced by families of children with parent-reported learning differences or disabilities (“disabilities”) due to mandatory school closures during COVID-19 in Québec, Canada. A questionnaire was used to compare the family routines of 20 participants before and after the school closures. The study’s findings highlight an overall concern regarding outcomes of long-term school closures. Family routines after the school closures included increased technology usage, decreased socialization, a cease or decline of extracurriculars and therapies, and an increase in symptoms of depression and anxiety among this cohort. The authors suggest enhanced support services, including psychosocial services and financial aid, to mitigate potential negative outcomes.

**CHANGEMENT DES ROUTINES CHEZ LES FAMILLES AVEC DES ENFANTS D'ÂGE SCOLAIRE AYANT DES HANDICAPS EN RAISON DES FERMETURES D'ÉCOLES OBLIGATOIRES PENDANT LA PANDÉMIE DE COVID-19 AU QUÉBEC, CANADA**

**RÉSUMÉ.** Cette étude explore les changements de routine et les impacts socioémotionnels vécus par les familles d'enfants avec des différences d'apprentissage ou des handicaps signalés par les parents vu les fermetures d'écoles pendant la COVID-19 au Québec. Un questionnaire est utilisé pour comparer les routines familiales de 20 participants avant et après les fermetures. Les résultats démontrent que les routines après les fermetures d'écoles comprenaient une utilisation accrue de la technologie, une diminution de la socialisation, l'arrêt ou la diminution des activités parascolaires et des thérapies, ainsi qu'une augmentation des symptômes de dépression et d'anxiété chez cette cohorte. Les auteurs suggèrent des services de soutien améliorés, y compris des services psychosociaux et une aide financière, pour atténuer les résultats négatifs potentiels.

School closures have been used to reduce disease transmission during pandemics (Halder et al., 2010; Johnson et al., 2008) and are considered effective (Ali et al., 2013). While the public health outcomes of school closures may be positive, the social and educational impacts of a long-term closure (longer than 1–2 weeks and not due to holiday break; Inglesby et al., 2006) might be negative as many families rely on school for child care and food security (Johnson et al., 2008). Prior research explored the characteristics of unplanned school closures in the United States and found that only 4% of 20,723 unplanned school closures during a 2-year period lasted longer than 4 days (Wong et al., 2014). Given the low prevalence of long-term school closures, their impact on social and emotional factors is poorly understood, especially on family life (Wong et al., 2014). The most recent occurrence of a pandemic leading to long-term school closures in North America was the 1918 influenza pandemic in which most U.S. schools closed for up to 4 months (Stern et al., 2009). Previous work on the impacts of short, 1- or 2-week closures (Ali et al., 2013; Johnson et al., 2008), as well as intermittent closures due to holidays (De Luca et al., 2018), concluded that these types of school closures were not associated with many negative outcomes.

However, the unprecedented and widespread shutdown of schools during the coronavirus pandemic revealed unforeseen and far-reaching consequences for children and their families. The full extent of these effects is yet to be uncovered.

Researchers have found that children who have disabilities, existing mental health issues, or live in cities are more at risk for mental health problems after the COVID-19 pandemic (Camden et al., 2020). Absury et al. (2021) found that most families with children who have disabilities experienced negative impacts due to the COVID-19 pandemic, such as worry, loss of routine, and changes in behaviour; however, some families experienced positive impacts or none. Asbury et al. suggest these challenges are likely widespread, but exacerbated in families with children who have disabilities due to the high support needs of these children. Research has found that for families of individuals with autism spectrum disorder (ASD), those families whose children were younger and had more “severe” symptoms experienced higher stress levels (Manning et al., 2021, p. 2926).

The main objective of our study was to expand the knowledge surrounding the impacts of mandatory school closures on families with children who have disabilities and their routines in Québec, Canada. In our analysis, we critically compare these regimens before and after the school closure to

explore the shifts in families' day-to-day routines. Individuals, and families of individuals, with disabilities have experienced documented struggles regarding access to needed resources, especially during times of crisis (Mertens, 2017). Our study adopts a disability studies framework, within which research is framed as a call for action in response to these documented struggles (Creswell & Poth, 2017). We hope that our findings will be a first step towards helping families cope with school closures and will foster practical suggestions for decision-makers regarding an informed pandemic response plan that incorporates families' needs and focuses on stakeholder empowerment.

For the purpose of this discussion, a *routine* can be described as a series of events that are repeated over time to become a continuous behaviour (Fiese et al., 2002). Research has shown that routines have a host of positive benefits for family and child functioning. Adolescents with consistent family routines have reported less alcohol use, more post-secondary enrollment, and better self-regulation skills (Barton et al., 2019). Importantly, families who have consistent routines show increased resiliency when faced with adversity (Black & Lobo, 2008). Engaging in family routines regularly is associated with decreased stress and anxiety (Bridley & Jordan, 2012). Routines are especially important for children with disabilities, such as ASD and down syndrome (DS), as these children experience resistance to change in routine and prefer schedules and sameness (American Psychiatric Association, 2013; Green et al., 2006). In the context of the pandemic, it is critical to understand how negative outcomes from a change in routine are exacerbated by disability.

#### **UNDERSTANDING THE IMPACT OF SCHOOL CLOSURES THROUGH THE LENS OF A DISABILITY STUDIES FRAMEWORK**

In this article, we seek to examine the impacts of school closures due to the COVID-19 pandemic on families with children who have disabilities. The research presented uses a qualitative, transformative framework within disability studies, which aims to advance social justice and fight against oppression (Mertens, 2017). The disability studies model focuses on the "full inclusion of disabled people in all aspects of society" (Connor et al., 2008, p. 443) and posits that structural realities contribute to barriers for people with disabilities. As such, our study works to forward this goal by including the voices of families of people with disabilities within the literature surrounding the impacts of COVID-19 on their lives. This study falls specifically under the domain of disability studies in education (DSE) since it looks at the impact of school closures on family life (Connor et al., 2008). In March of 2020, the lead author was working

as a social skills educator and applied behavioral analysis (ABA) therapist at an inclusive preschool in the Montréal area. On March 12th, the school shut its doors to students. Families whose children had been receiving regular and intensive therapy were left with no plan for the provision of services. This experience prompted the lead author to investigate what changes occurred in the routines of families during the closure period. Due to the unprecedented nature of these closures, an exploratory information-generating process was deemed necessary by the authors. We created a questionnaire meant to explore how routines of families in Québec were changed, what schools were doing to support the families, and the emotional impacts on parents and/or guardians and their children (see Appendix for full questionnaire).

The ethical principle that guided the genesis of this research was the belief that the needs of families must be considered when implementing public health measures. The needs of families of children with disabilities are often overlooked even under the best circumstances. We attempted to challenge an oppressive system by investigating how decisions made for the benefit of the larger community impacted a marginalized and vulnerable subset. It is essential that tangible measures are implemented to benefit individuals with disabilities. According to the United Nations Sustainable Development Group (UNSDG; 2020), people with disabilities experience more marginalization in communities experiencing crisis. However, Block et al. (2021) highlight that while the WHO recognizes the particular challenges that individuals with disabilities face and encourages a “disability inclusive response to COVID-19” (p. 4), few measures have been implemented that make these goals a reality and few governments have been held accountable for failing to protect the rights of people with disabilities.

We found that a transformative paradigm was most applicable to the situation as it best explores the impacts of decisions made by dominant societal power structures on individuals within groups that have historically experienced discrimination and oppression (Mertens, 2017). Under a transformative paradigm, the priority is placed on “the pursuit of social justice and the furtherance of human rights” (Munger & Mertens, 2011, p. 25). This study seeks to further human rights for individuals who have disabilities by documenting violations that occurred due to schools’ withdrawal of services that were normally provided to families.

Transformative research holds that there are multiple perspectives of reality (Mertens, 2017). In the context of this study, the participants indicated that the school closure negatively changed their reality, as

documented by the transformation of their emotions, experiences, and opinions. In reviewing the findings, we created a collective account of the new reality facing families living with disability post-school closure.

The DSE framework puts inclusivity and accessibility in education as the foremost focus (Connor et al., 2008). DSE follows the broader characteristics of disability studies (Block et al., 2021), which questions the assumption that disability is a deficit and focuses instead on understanding the structural barriers which exacerbate or create disability (Bennett, 2022). During the COVID-19 pandemic, many power structures asked people with disabilities to self-protect from the virus, putting the responsibility of safety into the hands of the individual. In the process, these power structures ignored the reality of power inequities as well as the fact that the “pandemic [had] exacerbated social disparities” (Rotarou et al., 2021).

A DSE framework aims to “deepen understanding of the daily experiences of people with disabilities in schools and universities ... to create and sustain inclusive and accessible schools” (Connor et al., 2008, pp. 441–442). Our study’s main goal aligns with this aim: to understand the changes in daily life due to unplanned school closures in response to the COVID-19 pandemic for families with children who have disabilities.

Researchers using the disability studies framework also assume competence among individuals with disabilities, acknowledge individuals with disabilities as the experts of their own experiences, and identify gaps in the system regarding the inclusion and support of individuals with disabilities. For example, researchers found that many individuals in Bangladesh with disabilities were the breadwinners of their families. However, during the COVID-19 pandemic, performing their occupations became much more difficult and, in some cases, impossible (Das et al., 2021).

Akin to these studies, our study explored the impacts of how a policy meant to reduce COVID-19 transmission impacted the lives of families with children who have disabilities, placing individuals with disabilities as experts of their own experiences. We believe that this study will contribute to societal transformation by informing new public policy measures.

## **METHODOLOGY**

### ***Participants***

Ethical approval for this study was provided by the McGill University Research Ethics Board. All procedures performed in this study involving

human participants followed the ethical standards of the board. Twenty parents or legal guardians participated in this study. Thirteen (65%) were 41–60 years of age, while seven (35%) were 31–40 years of age. Eighteen of the 20 participants were of Canadian nationality (90%), and the remaining two participants were of Mexican or Ecuadorian nationality. Half of participants were married (50%), while the others were divorced (20%), single (15%), cohabiting (10%), or separated (5%). The inclusion criterion for the study was that participants identify as a parent or legal guardian of a child with diagnosed disabilities, or of a child presenting as having characteristics of disabilities, who was at home due to school closures in Québec.

The number of children that each participant was responsible for varied: 45% were responsible for one child, and an equal number (45%) were responsible for two children. One was responsible for three children (5%), and one was responsible for five or more children (5%). All 20 participants (100%) indicated that they had children at home with self-reported disabilities. Seven participants (35%) explicitly described their child's disability. Within our sample, the definition of a child with a disability or characteristics of a disability included (but was not limited to) children with autism spectrum disorder (ASD), dyslexia, down syndrome (DS), attention deficit hyperactivity disorder (ADHD), or a child who required accommodations and/or services provided by the school, such as in-classroom assistance, extra time, speech therapy, or occupational therapy. The disabilities mentioned were ASD ( $n = 4$ ), ADHD ( $n = 2$ ), dyslexia ( $n = 2$ ), dysgraphia ( $n = 1$ ), dyscalculia ( $n = 1$ ), dysorthographia ( $n = 1$ ), developmental coordination disorder ( $n = 1$ ), and anxiety ( $n = 1$ ). Some participants indicated that their child had more than one disability.

### ***Sampling methods***

For this study, purposive sampling was employed to recruit participants. We were interested in a specific subset of the population: families with children with disabilities that were at home due to school closures related to the COVID-19 pandemic. Recruitment emails were sent out over a 1-month period to school principals with limited success. Subsequently, research ads were posted on relevant Facebook groups and pages over a 3-month period.

The first participant who contacted us in response to the social media advertisement requested the questionnaire and asked if they could share the link on Facebook with their circle of parents and friends who have children with disabilities. This participant thought other individuals would benefit from participating in this research study due to the

importance of school in their lives. The first participant had a child with a disability and worked as a practitioner with children who have disabilities. Other Facebook groups were contacted with no response.

The questionnaire was framed in a way to consider the expertise and strengths of the community by allowing for open-ended responses and asking the community to share their experiences directly. It was confidential and anonymous, and it included links to community support services regarding mental health, school resources, and COVID-19. A total of 21 participants completed the questionnaire. One participant was excluded as they identified that they did not have children with disabilities. The remaining 20 participants responded to the English version of the questionnaire, though a French version was also available.

### ***Data collection and analysis***

The questionnaire was administered using Qualtrics software. Participants consented to using an ethics-approved online consent form based on a McGill University template. A qualitative, inductive, 13-item questionnaire was electronically loaded. Participants were asked for their demographic information, including age range, nationality, marital status, number of children, and whether their child had a learning difference or disability. The remaining questions measured the impacts of the 2020 school closures.

The study questionnaire was open-ended to give participants space to voice their perspectives. It was inspired by previous research that investigated the impacts of a short-term school closure on families and the child care burden placed on parents (Johnson et al., 2008). It was reviewed by a professor in the field of inclusive education, as well as a PhD candidate in the field of human development.

The key components of the study examined how participants' routines and emotions were impacted due to school closures. Question 13 provided space for anything else the participants wanted to add about "how the school closure has impacted" their lives, allowing for perspectives and comments that were not covered by the other questions.

The results were obtained through a thematic analysis approach inspired by grounded theory, which included open coding, axial coding, and selective coding (Corbin & Strauss, 1990). Our lead researcher, Gustina Giordano, analyzed the data with Katja Kathol, her colleague from McGill's MED program. First, the two researchers engaged in open coding, in which they examined participant responses for each questionnaire question and independently identified themes. A theme was any idea or



concept that consisted of two or more supporting participant quotes. Individually, the two researchers assigned labels to words and phrases that represented the most prominent themes. These words were chosen to encompass a common theme between participants' experiences. Next, they engaged in axial coding and shared with each other the prominent themes they discovered. The two researchers discussed each theme until agreements about the theme, the data it included, and its label were reached. Finally, they engaged in selective coding, working together to reduce prominent themes into major categories, with the goal of developing a central category. The questionnaire results were read more than three times. If there was disagreement about a theme or category, the two researchers discussed it until agreement was reached.

## FINDINGS

### *Emotional impact of the school closure*

The responses discussed in this section are shown in Tables 1 and 2. In total, 95% of participants ( $n = 19$ ) expressed that the school closure resulted in negative emotional impacts. Within this category, participants experienced symptoms of anxiety ( $n = 4$ ) and depression ( $n = 9$ ), fear of going back to school ( $n = 2$ ), and difficulty working from home ( $n = 2$ ). One participant also indicated that several family members had fallen ill or died due to the virus, which led to additional negative emotional impacts. Participants also noted changes in their sleep patterns ( $n = 3$ ).

Participants ( $n = 3$ ) discussed the ability or inability to cope. Participant 3 identified that their child used *stimming* behaviours to cope. *Stimming* refers to “self-stimulatory behaviours,” and “these repetitive habits (‘stimming’) can take many forms, including visual or tactile stimulation or movements such as rocking and hand flapping ... to provide reassurance in stressful situations” (Bellis, 2021, p. 232).

Participant 7 mentioned an inability to cope with “all the changes of school,” while Participant 9 expressed that their children were able to cope with school closures because they understood the importance of keeping their family safe.

Some participants also revealed that certain family members exhibited more aggressive behaviours ( $n = 2$ ), while others indicated positive emotions surrounding the school closure, as it helped with anxiety surrounding school ( $n = 1$ ) and created more family time ( $n = 1$ ).

TABLE 1. *Emotional impact themes, before and after school closure themes*

Variable	Participants (N = 20)	
	Number	Percent
Emotional impact themes		
Negative (pressure / burden / depression / anxiety)	19	95.00
Sleep habits	3	15.00
Coping	3	15.00
Fear	2	10.00
Positive	2	10.00
Aggression	2	10.00
Before school closure themes		
School	19	95.00
Routine (outside of school)	15	75.00
Homework	9	45.00
Extracurriculars	6	30.00
Playtime	4	20.00
Therapy	4	20.00
Structure	3	15.00
Working parent	3	15.00
Socialization	2	10.00
Technology	1	5.00
After school closure themes		
Alteration in family routine	20	100.00
Technology	10	50.00
Online learning	8	40.00
Working parent	7	35.00
Negative (chaotic / stressful / loss of motivation)	6	30.00
Alteration in parent routine	5	25.00
Parent at home	5	25.00
Extracurriculars	5	25.00
Family time	4	20.00
Lack of socialization	3	15.00
Lack of structure	3	15.00
Cease or decline of extracurriculars	2	10.00
Hired assistance	2	10.00
Socialization	1	5.00
Cease of therapy	1	5.00

TABLE 2. Emotional impact themes: Mostly negative impacts

Theme and Sub-Theme	Illustrative Questionnaire Response
1. Negative emotion	
1a. Depression	The kids went into a mini depression. My daughter was brought to hospital psych emerg. (Participant 2)
1b. Anxiety	My 10-year-old who has learning disabilities had so much anxiety about how much farther behind he was going to be because they weren't in school for 6 months. Some kids like him can't just go back to school and continue where they left off. (Participant 8)  The lack of routine caused anxiety and many meltdowns. (Participant 13)
1c. Burden	We feel the pressure of working and doing more chores. My neighbor is complaining about the noise my son does. I had to take a month sick leave because of this burden. (Participant 4)
2. Sleep habits	I am extremely tired and not sleeping. Kids don't want to go to bed early because they don't have to get up for school. (Participant 19)  Kids sleep until noon or 1. All food is delivered. (Participant 7)
3. Coping	Stimming is how he copes. (Participant 3)
4. Fear	He is TERRIFIED to go back to school and gets very agitated when we speak about it, or even when he heard the words "school" or "September." (Participant 3)
5. Aggression	The younger one has become impatient and more aggressive with his brother. (Participant 5)
6. Positive emotion	It's been a very positive change. My daughter suffered from anxiety due to pressure related to academia performance. My daughter has found it much better by being at home, and she's benefited from one-on-one type of learning. (Participant 19)

Note. Spelling and grammar within participant responses were corrected for better readability.

***Routine before the school closure***

The responses discussed in this section are shown in Tables 1 and 3. When participants were asked about their routines prior to the school closure, a theme of consistency emerged. The participants overwhelmingly indicated that their family's routine was centered around school (n = 20). Data revealed some variation, specifically regarding extracurriculars and after-school activities. One participant indicated that they were homeschooling

their child. Although this participant’s child was not enrolled in school in Québec before the pandemic (an inclusion criteria of the study), they indicated that the school closure impacted them as well. Due to their assessment of their situation, we chose to include Participant 6:

Even though he was already home schooled before the closure, it affected him because it was like our home schooling was also closed, and was restricted to the couch ... it used to involve a lot more, such as outings, meeting up with others, and even travel.”

Many participants indicated that they engaged in routines outside of school time ( $n = 15$ ). For example, Participant 12 indicated an evening routine of “home, dinner, free time, bath, bed.” Families also indicated that completing homework ( $n = 9$ ) and technology use ( $n = 1$ ) were important components of their routines. Many families engaged in other activities such as extracurriculars ( $n = 6$ ), socializing ( $n = 2$ ), and therapeutic or remedial activities ( $n = 4$ ).

TABLE 3. *Before school closure themes*

Theme	Illustrative Questionnaire Response
1. School	Kids go to school. (Participant 2)
2. Routine	Parent woke at 4:30 a.m., got all stuff ready for themselves and kids’ lunches. Kids got up at 6 a.m., left house by 7 a.m. Pick up kids at 4:45 p.m., dinner, homework, bath, bed at 8:30 p.m. Parent in bed by 9 p.m. (Participant 9)
3. Homework	Homework after supper in the evening. (Participant 11)
4. Extracurriculars	Thursday: Swimming, Friday: Art, Monday: Orthopédagogue. (Participant 18)
5. Therapy	Occupational therapy or speech-language pathology on a bi-weekly basis. (Participant 21)
6. Working parent	Parent worked full time. (Participant 20)
7. Socialization	See his grandparents and family members more frequently. (Participant 21)
8. Technology	Bath, TV, or iPad time. (Participant 2)

*Note.* Spelling and grammar within participant responses were corrected for better readability.

### ***Routine after the school closure***

The responses discussed in this section are shown in Tables 1 and 4. After the school closure, 100% of participants indicated an alteration in routine. School had previously been a large part of every family's life, and participants had to adapt to the loss of routine and resources provided by schools. A significant change was in the increased use and mention of technology, as ten participants (50%) noted increased technology use, whereas it was mentioned only once previously. Many participants experienced an alteration in activities, such as a decrease of socialization ( $n = 3$ ), a cease or decline of extracurriculars ( $n = 2$ ), or a cease of therapies ( $n = 1$ ). Parents also indicated that they hired extra help ( $n = 2$ ).

### ***Impact of school closure on routine***

The responses discussed in this section are shown in Tables 1 and 4. The school closure had a large impact on parents' ability to find activities to keep their children occupied and engaged. The most popular post-closure method was to increase the use of technology ( $n = 10$ ). Many participants experienced a decrease in the activities they had previously participated in ( $n = 6$ ). Half of participants' children engaged in some type of online learning ( $n = 9$ ); however, parents had mixed perspectives about it. Participant 20 stated that "screen time scheduled during mom's meetings / classes. If son has a school Zoom meeting, he needs mom's computer," which impacted their work. Others indicated that it was difficult to work with their children at home ( $n = 2$ ) or that they had to hire extra help to facilitate online classes ( $n = 2$ ). One family considered Zoom classes "excellent," while another considered them "a disaster." The emotional impact of the school closure was evident; participants stated that their children lost motivation, experienced chaos, or had difficulty doing schoolwork at home ( $n = 6$ ).

### ***Home-schooling themes***

The responses discussed in this section are shown in Table 5. The majority of participants indicated that they had not transitioned to home-schooling their children ( $n = 12$ ). Of the eight participants that did provide their children with home-schooling, three themes emerged. First, participants engaged in online learning opportunities facilitated by their school ( $n = 3$ ). Second, participants created their own routine in the absence of school ( $n = 3$ ). Finally, participants bought supplemental materials or services to enhance learning at home ( $n = 3$ ).

TABLE 4. *After school closure themes*

Theme and Sub-Theme	Illustrative Questionnaire Response
1. Alteration in family routine	We no longer go to school. So he doesn't take the school bus or attend daycare services at school. His hockey team stopped all activity and his practices got cancelled. (Participant 21)
2. Technology	Spends up to 12 hours per day on YouTube and playing video games. (Participant 6) My 6-year-old, who used to hardly use any electronics, became addicted during the pandemic. (Participant 8)
3. Online learning	Zoom classes are a disaster, easier to focus when parent teaches them themselves. (Participant 5)
4. Alteration in parent routine	Parents had to alternate working hours. Morning and night routines are different for son and parent since they have to adapt their schedule for being able to work. (Participant 4)
5. Negative impacts	
5a. Stressful	A mess, very hard to keep up with anything, very stressful. (Participant 18)
5b. Loss of motivation	Child lost all motivation for schoolwork. (Participant 6)
6. Extracurriculars	Free play, outside play for 1 hour, more outside time, reading, learning an instrument, more baking, and tons of DIY projects. (Participant 9)
7. Family Time	We are all home, so we actually have fun together playing board games, exploring more our interests, and trying new things. (Participant 9)
8. Lack of socialization	Not being with friends and no social interaction is causing major problems, especially autistic son who has backtracked on social skills. (Participant 15)
9. Cease or decline of extracurriculars	His hockey team stopped all activity and his practices got cancelled. This included his tournament at the end of March. (Participant 21)
10. Hired assistance	Paying for an online tutor. (Participant 18)
11. Socialization	When allowed to see friends, daughter hangs out with two friends until 8:30 p.m. (Participant 2) She was most impacted socially and emotionally and accessed online therapy during the lockdown (April and May). (Participant 20 from Question 12)
12. Cease of therapy	He had to stop therapies during quarantine. He only re-started therapy in both occupational therapy and speech-language pathology in July. (Participant 21)

*Note.* Spelling and grammar within participant responses were corrected for better readability.

**TABLE 5. Home-schooling themes**

Theme and Sub-Theme	Illustrative Questionnaire Response
1. Online learning opportunities	We participated in all of the online learning opportunities provided by Summit from March to June. (Participant 3)
2. Created own routine	I prepared a daily routine for us to follow. We used the material that was being sent home by the ministry for many lessons. (Participant 9)
3. Purchased supplemental materials or services	I also found curriculum books from Amazon and ordered many of them. (Participant 9) I'm paying for tutoring services. (Participant 19)

*Note.* Spelling and grammar within participant responses were corrected for better readability.

### ***School supports for at home learning***

The responses discussed in this section are shown in Table 6. The majority of participants' schools provided some type of online learning services ( $n = 19$ ). However, for some participants, Zoom classes were initially infrequent, or only 1 hour per day ( $n = 4$ ). Another theme that emerged was schools offering assistance other than online classes ( $n = 6$ ; see Table 6).

**TABLE 6. School supports for at home learning themes**

Theme	Illustrative Questionnaire Response
1. Online learning provided by schools	For my 13-year-old, she had Zoom classes for an hour a day, as well as homework, book reports, and projects. My 10-year-old got weekly homework but we weren't able to keep up. He had Zoom meetings every 3 weeks, which he absolutely detested. (Participant 8)
2. Schools offering assistance	Support via phone call from guidance counselor for ASD child. (Participant 16) While out of school, her teacher calls weekly to check in with her and talk to her. (Participant 18) Weekly content posted by teacher. App to communicate easily with teacher. (Participant 20) Summit school worked hard to match us with a Summit employee for the summer. We use our CLSC respite money to pay her. We try to keep things as normal as possible. (Participant 3)

*Note.* Spelling and grammar within participant responses were corrected for better readability.

## DISCUSSION

In a DSE framework, participants are considered experts who inform research and marginalization is considered to come from power structures rather than the individual (Block et al., 2021). Our study illuminates the experiences of 20 legal guardians of school-age children with disabilities through their own descriptions of their experiences. Recently published disability studies that explore the impacts of the pandemic find that power structures pushed the responsibility to stay safe on to the individual. This both alienated the rights of people with disabilities and “disadvantaged disabled people” (Block et al., 2021, p. 4). Our results are in line with this research and indicate that school power structures placed the responsibility on the individual to educate and provide routines for their children during the pandemic. This created disadvantages for people with children who have disabilities, such as service disruption and disruption of routine, along with negative emotional impacts and inconsistent experiences of online learning.

### ***Impact on family routine***

Our study found that the disruption in routine caused by the school closure likely increased symptoms of anxiety and negative outcomes for families of children with disabilities. This is consistent with previous research that highlights how individuals on the autism spectrum often experience challenges when experiencing changes in routine (Boyd et al., 2014; Flannery & Horner, 1994).

Our findings show that prior to the school closure, all families engaged in a highly consistent routine. In total, 95% of the participants’ children attended school, and all families engaged in consistent daily routines such as school drop-off, school pick-up, mealtime, and bedtime. Most families mentioned routine activities related to school pick-up or drop-off, including walking the dog, engaging in extracurriculars, or spending time with their child. Equally, many parents mentioned a “bedtime routine,” “mealtime routine,” and “dinner,” among other keywords that indicated a consistent family routine.

After the school closure, few families reported engaging in these daily routines and they commented on a lack of consistent routine. Overall, our study found that 100% of participants ( $n = 20$ ) experienced a disruption in their family routines. This is significant, as one of the first signs of family stress is a disruption in family routines or rituals (Spagnola & Fiese, 2007; Steinglass et al., 1987).



Public uncertainty and unpredictable legislation made maintaining a consistent routine difficult. One participant commented, “it’s been very stressful to have to deal with the government constantly changing their minds, like school, then no school, no daycare, and then daycare opened for 2.5 weeks until summer holidays.” Research shows that the continuation of routines through difficult events can serve as a protective factor for child development (Spagnola & Fiese, 2007). Moreover, more recent research has demonstrated the protective nature of routines during school closures due to the COVID-19 pandemic (Bates et al., 2021). Routines can play a role in mitigating problem behaviours and improving outcomes among children with learning differences such as ADHD (Harris et al., 2014).

For families dealing with stress due to school closure, maintenance of family routines may serve as a protective factor. Future interventions should focus on helping families establish routines during unprecedented times of change and emotional turmoil. Psychologists and educators can contribute to routine building by providing schedule templates and encouraging the continuation of routine staples such as mealtime, bedtime, school time, and playtime.

### ***Impacts on mental health***

Recent studies have raised serious concerns about the potential impacts of school closures on children’s mental health (Golberstein et al., 2020; Tang et al., 2020). Statistics Canada found that “64% of youth aged 15 to 24 reported a decrease in their mental wellness during the 2020 pandemic” (2021). Our findings show that 95% of families experienced negative emotional impacts from the school closures. This is consistent with studies that confirm that significant changes in routines result in the experience of negative emotions (Steinglass et al., 1987). In total, 50% of participants explicitly expressed a family member’s experience with symptoms of anxiety and/or depression after the school closures, in accordance with recent research (Tang et al., 2020). Fear of being infected, confinement, lack of routine, as well as a decline in peer interaction are all factors that contributed to experiences of anxiety and depression among participants. Educators and psychologists should encourage developmentally appropriate family discussions about COVID-19, as research found that children who discussed the pandemic with their parents had fewer symptoms of depression, anxiety, and stress (Tang et al., 2020).

### ***Impacts on technology usage***

Technology has become essential to maintain social, physical, emotional, and intellectual well-being during the COVID-19 pandemic (Goldschmidt, 2020). Our data demonstrated an increase in technology usage among children post-closure, showing that over 40% of families turned to technology to keep their children occupied. One participant commented, “my 6-year-old, who used to hardly use any electronics, became addicted during the pandemic.”

Screen time can be broken into two categories: *active* and *passive* (Sweetser et al., 2012). Active screen time includes completing homework, learning, or socializing online. Passive screen time includes TV viewing and watching videos (Sweetser et al., 2012). Active screen time has been associated with positive benefits, while passive screen time, especially among young children, can have negative impacts on cognitive development (Sweetser et al., 2012). Research indicates that children who engage in excessive passive screen time experience poor mental and physical health outcomes (Rosen et al., 2014). For instance, negative health impacts such as eye problems, headaches, and tiredness have been associated with technology use among children (Smahel et al., 2015).

However, increased technology usage may be positive if families are engaging in co-viewing, whereby they engage in online media together so parents can facilitate important discussions. Co-viewing was found to develop children’s vocabulary and provide an in-depth understanding of new content (Takeuchi & Stevens, 2011, as cited in Goldschmidt, 2020). Indeed, 19% of participants indicated that they were spending more time with their families because of the school closures. Watching movies and television programs is an effective family activity when outdoor and social activities are limited. Further research could investigate the type of engagement with technology to better understand the specific risk factors involved.

### ***Impacts on socialization***

School closures inevitably led to a decline in peer relationships among school-aged children. Several participants commented on the lack of socialization experienced by their children ( $n = 3$ ). One participant stated, “[my] son’s world has grown very small.” Another commented, “not being with friends and no social interaction is causing major problems especially for my autistic son who has backtracked on social skills.” For some participants ( $n = 3$ ), this decrease was exacerbated by the cessation or decline of extracurricular activities and therapies.

These findings point to a reduction in social support and interpersonal attachment among school-aged children with learning differences. Studies have found that decreased social support is associated with lower cognitive performance during the following year (Dickinson et al., 2011). Similarly, a lack of interpersonal attachment is associated with poor physical, emotional, and mental health (Baumeister & Leary, 1995). Research about best practices to maintain and improve peer relationships, as well as to facilitate the reconnection of children to therapies and support services during and after COVID-19 school closures, is sorely needed.

### ***Impacts on learning***

In total, 38% of participants mentioned that their children were engaged in virtual learning as a means to replace traditional in-person schooling. Online learning presents several challenges for children and parents. The digital divide is present in households that have limited access to technology, Wi-Fi, and the knowledge to navigate new applications such as Zoom. One participant mentioned that their child had to use their computer for online learning because this was the only resource available. Statistics Canada found that 58% of Canadian households do not have enough technological tools for all family members to be able to work / study in the home (2021). For families with young children, parental support or supervision is required to facilitate successful connection to Zoom classes and other technology-based learning tasks. Children with disabilities require further assistance to accommodate their diverse learning needs. These burdens are placed directly on parents and may explain why several participants ( $n = 5$ ) indicated an alteration in parent routine after the school closures occurred.

As mentioned, participants expressed varying opinions about the success of online learning. Opinions ranged from “excellent” to “a disaster.” In particular, one participant stated that their child’s “reading progress went down” as a result of home-based learning. These findings suggest a lack of consistency in the success of online learning and the inability to adequately address individual student learning needs. Individualized learning strategies are necessary to allow school-aged children with learning differences and disabilities to succeed in this environment.

### **CONCLUSION**

We found that school closures led to disruptions in family routines, which negatively impacted families socially and emotionally. These disruptions took the form of a cease or decline in therapy and extracurriculars, increased technology usage, fewer learning opportunities, and decreased

socialization. While we found that some schools attempted to provide additional services, the sum of their response was neither systematic nor comprehensive. We believe that such a lack of action exacerbates the oppression of people with disabilities and their caregivers. The most influential decision-makers missed an opportunity to comprehensively mitigate the negative impacts of the disruption of family routines and to empower impacted families.

In the future, when forming school or governmental policy, decision-makers should first seek feedback from relevant stakeholders and implement innovative solutions. If schools and community groups proactively implement solutions that provide families with necessary resources, they can limit the negative impacts of future crises. Potential solutions include the creation of comprehensive remote services and the teaching of skills in routine building. Future research should explore the effectiveness of such protective factors against the deleterious results of school closures, especially in regard to disruptions in family routines.

#### ***Limitations, generalizability, and future research directions***

This exploratory, transformative, qualitative study is a first step in highlighting the impacts of school closures due to COVID-19 on family routines. The sample was small and limited to Québec. Therefore, it may not reflect the experiences of families across Canada. To better understand global circumstances of the pandemic and uncover generalizable results, future research should consider a larger sample size, other qualitative frameworks, quantitative methods, and recruiting participants across North America.

Additionally, the authors focused on the responses of parents and guardians regarding the impacts of school closures and did not seek demographic information such as participants' sex, gender, employment, education, or socioeconomic status. Demographic information might have been useful to underscore nuances in the data. Future research should also consult with stakeholders for feedback on the questionnaire to ensure that the research addresses their needs.

All participants were English-speaking. Although unintentional, this factor excludes the large, predominant French-speaking population in Québec. Likewise, 100% of participants had one or more children with disabilities. Therefore, these results cannot be generalized to families with children who do not have disabilities. Furthermore, the authors did not triangulate data for this preliminary study. The data was also collected with purposive sampling, which can create bias because it is not randomized.

## *Implications*

The present study extends the current literature on the changes in family routine due to long-term school closures, the impacts of disruptions in routine on families, and the mental health of families during the pandemic. The findings highlight major shifts in routine among families of children with disabilities after the school closures, including increased technology usage, a decrease in socialization, a cessation or decline in extracurriculars and therapies, and an increase in symptoms of depression and anxiety.

While the schools in Québec have re-opened since the initial March 2020 school closure, intermittent school closures have continued as needed to combat the spread of COVID-19 (Kwabena Oduro, 2022). In the event of a future school closure, psychologists and educators should implement methods to support families in the creation of consistent, healthy, and personalized routines. Research has found that families preserved and created new routines to structure their life to create a stable and assuring environment for their children during the ever-evolving context of the pandemic (Camden et al., 2020). Power structures, such as schools and government organizations, must help families become better equipped to create routines amidst social, political, and economic change to feel safe and to promote healthy child development. Psychologists and educators could inform families about the importance of routines, rules, and structure by encouraging families to establish specific mealtimes and bedtimes, limiting the use of technology per day, and providing daily schedule templates.

Equally, decision-makers could enact laws to establish comprehensive remote support services, as well as provide funding for parents to hire extra support so that they and their children are better able to maintain school and work routines as established prior to the pandemic. Notably, although participants discussed the social, emotional, and physical impacts of school closures on family routine, none discussed how economic downturns affected daily routines. Future research should work to provide a broader understanding of how COVID-19-induced economic strain can negatively impact mental health and family organization.

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APPENDIX: ONLINE QUESTIONNAIRE (VERSION: ENGLISH)

Q1: What is your age?

- ☐ 20–30 years old
- ☐ 31–40 years old
- ☐ 41–60 years old
- ☐ 60+ years old

Q2: How many children do you have at home?

- ☐ 1
- ☐ 2
- ☐ 3
- ☐ 4
- ☐ 5+

Q3: What is your nationality?

- ☐ Canadian
- ☐ American
- ☐ Other \_\_\_\_\_

Q4: What is your marital status?

- ☐ Single
- ☐ Married
- ☐ Co-habiting
- ☐ Divorced
- ☐ Other \_\_\_\_\_

Q5: Do one or more of your children have learning differences, such as Autism Spectrum Disorder, Dyslexia, Down Syndrome, ADHD etc. or require accommodations and/or services provided by the school, such as in-classroom assistance, extra time, speech therapy, occupational therapy etc.?

- ☐ Yes \_\_\_\_\_
- ☐ No

Q6: What city do your children go to school in?

- ☐ Montréal
- ☐ Montréal-west

Q7: Are you home-schooling?

- ☐ Yes \_\_\_\_\_
- ☐ No

Q8: If you are home-schooling, please describe some activities that you are using or strategies?

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Q9: What was your daily child-parent routine like **before** the school closure?

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Q10: What is your daily child-parent routine like **since** the school closure?

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Q11: How has your family been impacted emotionally due to the school closure?

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Q12: Has your school attempted to switch to online services, or continue to provide some type of support? If so, how?

- ☐ Yes \_\_\_\_\_
- ☐ No

Q13: Is there anything else you would like to add about how the school closure has impacted your life?

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**Key:**

\_\_\_\_\_ = long-answer question

- ☐ = multiple choice question

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