

Titre de la publication: **A light in the dark: How children make sense of COVID-19**

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Accepté pour publication dans *Journal of Community & Applied Social Psychology*, 1–21, 2023

### **Abstract**

**Aims:** Understanding the negative impact of the pandemic on children and adolescents' is essential in order to provide proper support and intervention. Nonetheless, surmounting adversity, such as COVID-19, may also provide positive lessons for youth to overcome the negative consequences of the pandemic and prepare society for future crises. The objective of the current qualitative study was to document the perceived positive aspects identified by children and adolescents during COVID-19 and how they made sense of their experience.

**Methods:** Participants (N=67, 5-14 years old) were recruited in May and June 2020. Semi-structured interviews were conducted via a videoconferencing platform. Based on the transcribed and coded interviews, a thematic qualitative analysis was derived utilizing NVivo.

**Results:** Participants' answers were grouped into four main themes and sub-themes: 1) school changes, 2) bonding time, 3) free time and, 4) technology usage. **Conclusion:** Analyzing youth perspectives on their experience of the COVID-19 pandemic provides insight into some of the positive changes and lessons that can be gained amidst the overwhelming negative consequences of the pandemic.

**Keywords:** COVID-19, qualitative, children, resilience, development

**Public significance:** Without a doubt, COVID-19 has negatively impacted various spheres of children and adolescents' lives. However, there are lessons to be garnered from overcoming adverse events such as the COVID-19 pandemic. From children and adolescents' perspectives, we found that among the many deleterious consequences of the pandemic, positive lessons can also be drawn. These lessons can help us mitigate the negative consequences of COVID-19 and gain knowledge on how to better manage the ongoing and future health crises.

### **Introduction**

The COVID-19 pandemic has drastically impacted our everyday lives on a global scale. Although necessary as a critical means to reduce the transmission of the virus, confinement, isolation and distancing measures, have negatively impacted adult mental health and psychosocial well-being (Luo et al., 2020; Mazza et al., 2020; Rajkumar, 2020; Brooks et al., 2020). These societal changes significantly affect children and adolescents and include social consequences, such as isolation from family and friends, as well as changes in routine due to daycare and school closures (Hilppo et al., 2020). Empirical information on the consequences of the pandemic for children and adolescents are still emerging and indicate negative consequences of COVID-19 on children and adolescents. Tracking these sequelae and children's reactions to the pandemic is critical and informs on areas where services and interventions are required. However, we posit that documenting their experiences can also inform on positive lessons and ways to mitigate negative consequences that may be helpful for managing the ongoing and future health crises.

Several studies have begun to document the effects of the pandemic on children's and adolescents' mental health. Greater likelihood of depression and anxiety symptoms (Loades et al., 2020), post-traumatic stress symptoms (de Miranda et al., 2020), increased clinginess, inattention and irritability (Jiao et al., 2020) have been reported across countries. Others have underscored difficulties arising from interruptions in school activities for youth resulting in a lack of structure and routine (Lambrese, 2020) and a negative impact on academic attendance and success (Davies & Aurini, 2021; Gustafson, 2021). Quarantine and home confinement may also have a psychosocial impact on children both in the short and long-term (Wang et al., 2020). For example, restrictions on seeing friends and family members have been enforced in several countries and are reported to impart serious consequences for children and adolescents due to the importance of peer and social contact over the course of development (author 2 et al., 2022; Oberle et al., 2010; Gifford-Smith & Brownell, 2003).

### **Sensemaking in the wake of adversity**

The ability to overcome adverse life events can also result in positive changes and better functioning in the long-term (Linley & Joseph, 2004; Joseph & Butler, 2010). In a review of the effects of adverse life events such as transportation accidents, natural disasters, interpersonal experiences and medical problems, positive change was reported by 30-70% of survivors (Linley & Joseph, 2004). These positive changes reported post-trauma vary from reorienting one's life and a re-evaluation of life priorities, to being more intimate with loved ones, handling stress in a healthier manner, greater self-care, increased spirituality and greater appreciation of daily life (Park, 2004). Therefore, undergoing an adverse life event may, for some, result in positive development and growth (Tedeschi &

Calhoun, 2004). Furthermore, sensemaking, a social process to create meaning from events (Weick, 1995), may be an important element that influences individuals' ability to adapt, develop resilience, and emerge strengthened after a novel or traumatic situation (Kilskar et al., 2020; Rankin et al., 2014; Vogus & Sutcliffe, 2007). Focusing on sensemaking may build resilience in disaster management (Takeda et al., 2017) and in situations that have the potential to harm people, property or the environment (Kilskar et al., 2018).

The ability to derive positive changes or development and make sense of difficult or traumatic life events is also a capacity found in children and adolescents. One study regarding adolescents in foster care found that some adolescents who suffered maltreatment or abuse reported experiencing positive change, such as increased compassion and self-efficacy, once they had left foster care (Valdez et al., 2015). A longitudinal study spanning 10 years demonstrated greater positive emotional engagement in female adolescents who overcame adversity, such as bullying (Masten et al., 1999). Furthermore, youth living in dangerous familial or environmental settings, expressed an emotional awakening, greater self-inquiry and greater self-responsibility following various significantly difficult life events (Michael et al., 2018). Children and adolescents who live through natural disasters may display positive and critical thinking, problem solving, and positive personality traits, such as creativity, adaptability, and a sense of humor to overcome these situations (Mohammadinia et al., 2018). Thus, to date, findings in the context of abuse or trauma suggest that, although likely to be different in nature, children traversing the COVID-19 pandemic may also perceive, report or display positive insights

or reflect on the meaning of their experience, and this can inform on ways to manage or attenuate its effects and bolster resilience in the future.

Researchers have already begun to reflect on the meaning that may be derived from the COVID-19 pandemic. An observational qualitative study was conducted in 8- to 20-year-old Indian youth who were asked to create a painting related to the subject of the pandemic or home confinement (Amrutha et al., 2021). Paintings by participants demonstrated some positive experiences: recurring themes included more quality time spent with family, enhanced time for creativity and more time for themselves. In another qualitative study, diary entries regarding perspectives about the pandemic were collected from 10 to 11-year-old Italian youth (Tateo & Dario, 2020). Initial analyses revealed that participants expressed various difficulties, namely, feelings of fear and preoccupation with the pandemic and its restrictions. However, they also reported resourcefulness and positive reflections such as the possibility of seeing their friends online. A study conducted in Spain queried 3- to 12-year-olds as to their thoughts and feelings related to the lockdown (Idoiaga et al., 2020). Feelings of boredom, anger, tiredness and loneliness logically emerged; however, feelings of security and protection at home as well as the appreciation of extra time spent with family were equally expressed. Research has also specifically begun to explore sensemaking by youth during the pandemic where sensemaking helped youth reorient and adapt to lockdown measures in Italy (Procentese et al., 2021; Gatti & Procentese, 2021). Relationships, social connectedness, community connectedness or belonging, shared activities and supporting one another, were among the factors that allowed youth to make sense of their situation during COVID-19.

### **Objectives**

These emerging findings suggest that there may be positive lessons to draw from among the numerous negative consequences of the pandemic, but these may differ geographically and demographically. The objective of the current qualitative study was to build on these findings by documenting the putative positive impact or meaning of the pandemic on children and adolescents from their own perspectives through semi-structured interviews. We considered positive outcomes within the frame of the Perceived Benefits Scales (McMillen & Fisher, 1998) which includes: lifestyle changes, material gain, increases in self-efficacy, family closeness, community closeness, faith in people, compassion and spirituality. This scale was utilized to help determine what may be considered positive and not as a strict definition to which to adhere. Research directly based on the perspectives of children is an important method for studying social and developmental factors in childhood (Harcourt & Einarisdottir, 2011). Youth have the ability to communicate their views and contribute to research and society by direct report (Mayall, 2000; Smith, 2007), a method which can circumvent third party biases associated with caregiver report. Furthermore, it is acknowledged that children's voices must be heard and that listening to them reduces disaster risk (Mudavanhu et al., 2015).

## **Methods**

### **Participants**

The study was approved by a Quebec hospital ethics review board. Parents and their children (N=67, 36 boys and 31 girls, mean age=8.91, SD=2.64 years) were recruited to participate on a voluntary basis for a broader study conducted by author 2 et al. (2022). These families were recruited through convenience sampling using social media and web advertisements for a broader study on children and adolescents' perspectives on

socialization during COVID-19 (author 2 et al., 2022). Participants were also recruited through word of mouth and “snowball” or “network” recruitment, whereby a previously recruited participant suggests a potentially interested participant to the researcher. A sufficient number of participants to represent the broad age band was sought during recruitment. Inclusion criteria included a) children between 5 and 14 years of age, b) living in the province of Quebec, Canada and c) attending regular school. Exclusion criteria included: a) insufficient English or French language proficiency to respond to the interview questions and b) any diagnosed, severe neurodevelopmental, psychiatric, metabolic, genetic disorder or acquired brain injury.

Sample size was determined using the theoretical saturation criterion (Bowen, 2008; Glaser & Strauss, 1968). An *a priori* sample of 45 participants was initially determined based on recommendations for and examples of qualitative studies of this nature and sample representativeness (Morrow, 2005; Saunders et al., 2018). Once 67 interviews were conducted, it was found that the same terms were frequently used in participants’ responses and that no additional insights or issues emerged from the analysis of their experiences. All relevant conceptual categories were explored and identified thus achieving data saturation (Bryant & Charmaz, 2007).

### **Procedure and setting**

Parents and children provided written consent or assent where relevant to participate. Parents completed a socio-demographic questionnaire (see Table A1). Semi-structured interviews were conducted via telephone or videoconference with child participants between May 25<sup>th</sup> and June 22<sup>nd</sup>, 2020. Younger children were interviewed with their parents present. A state of health emergency was declared by the province of

Quebec on March 13<sup>th</sup> 2020. The interviews were conducted during the COVID-19 pandemic lockdown where schools, daycare centers and non-essential businesses or workplaces were primarily closed (Gouvernement du Québec, 2020a). Physical and social distancing (a minimum distance of two meters between individuals) were introduced as well as banning outdoor and indoor gatherings. Parks, playgrounds, and recreational facilities were also closed. Non-essential outings outside the home were restricted. Beginning in May 2020, various measures were eased or abolished as part of the government deconfinement plan. For greater details on the lockdown measures instated at this time, please refer to Gouvernement du Quebec (2020b).

### **Semi-structured interview**

The interview guide was developed by experienced clinician-researchers (author 2, author 3, author 5 & author 6) and revised by the research team in both a French and English version. Preliminary testing of the guide was conducted with two children of different ages to verify relevance and if the questions were properly understood. The interviews included 15 questions and sub-questions (about 10-20 minutes in duration) related to child perceptions concerning themes such as friendship, virtual communication and likes or dislikes since the start of the pandemic (see Table A2). The interview guide was initially created for a broader study conducted by author 2 and colleagues (2022). The objectives of the interview guide were to document the perspectives of children and adolescents regarding their friendships and social life during the COVID-19 pandemic. Questions thus did not specifically target positive experiences during COVID, however, through open discussion during the interview process, youth elaborated on positive elements of their current circumstances. This study more specifically aimed to draw out



these positive elements raised spontaneously by the participants using the same data set. All interviews were recorded either with audio and/or video.

### **Data analysis**

This research project falls within a constructivism-interpretivism research paradigm and thus follows an inductive and exploratory approach (data driven rather than hypothesis driven). A thematic qualitative analysis (Braun & Clarke, 2006; 2019) was conducted consisting of a flexible and fluid coding process that remained systematic. The authors first familiarized themselves with the data by transcribing the recorded interviews verbatim, repeatedly re-reading the transcriptions once completed (data immersion) and noting down initial ideas such as categories for interview responses. Next, initial codes were generated during data analysis and the interview coding was performed using QSR NVivo software. In the broader study from which our data set was taken, a coding guide, designed to structure the coding, was developed based on the analysis of the interviews, from which codes were generated in an open coding phase. Codes were then sorted into potential categories based on how they were related and linked at a semantic level. These categories were used to organize and group codes into meaningful clusters, and to systematically identify both recurring and central themes and sub-themes that accurately represent the data. For example, original themes such as “vacation time” became a subtheme “time to rest”, of a larger theme, “positivity from school changes”. The first author was primarily responsible for the coding and analysis process; however, active consultation with two authors of the article (author 2 & author 6) was performed to reduce subjective bias (Morrow, 2005) and to repeatedly review and refine themes and subthemes. Periodic checks of the agreement were carried out (Guest & MacQueen, 2008) and the

primary coder checked more than 50% of the interviews coded by a second coder to ensure similarity. Another researcher (and author of this article) performed an analysis of a portion (15%) of the raw data and this was comparable to that obtained by the primary coder. The analyses were then verified to relate back to the open research question, the perceived positive experiences during the pandemic from youth's perspectives, and previous literature on perceived positive experiences during the pandemic. In the current paper, we present data related only to consequences that can be perceived as positively associated with the pandemic. Detailed methods of the full study have been published elsewhere (author 2 et al., 2022).

## **Results**

Participants' answers were grouped into four main themes, each with their own sub-themes: 1) school changes, 2) bonding time, 3) free time and, 4) technology usage. Details regarding each theme and their corresponding subthemes are presented below. Examples of representative verbatims from the interviews can be found in Table A3.

### **1. School changes**

This theme includes routine changes that participants reported due to their schooling being predominantly online via video conferencing platforms such as Zoom or Microsoft Teams.

#### **a) Structure changes**

Almost all of the participants had switched to online learning during the lockdown. The majority of them said they preferred in-person school, however, many identified positive aspects of this switch despite the circumstances. For example, participants discussed the

positive impact of modifications in school structure. Some felt that online schooling allowed them to learn at their own rhythm, whereas in-person classes were conducted at a more hurried pace. Others felt that online learning provided more freedom to ask friends and classmates school-related questions during class time. A common change in school structure that participants appreciated was having less homework, later class start time and fewer obligations. The ability to choose what to wear and avoid judgement from peers on appearance was also mentioned as a benefit of online learning. There was a common appreciation of greater flexibility in daily routine where some participants felt they had both more autonomy over their schedules and less pressure to be punctual or consistently engaged in tasks. One child expressed this change as: “Uh I found I found that that my time was much more flexible and I could, like, organize it myself.” (P85, boy, 13 years).

**b) Time to rest**

Some participants described their day as less structured without regular schooling. This allowed them to feel more rested and able to tackle the day at their own leisure. The majority of participants expressed a positive response towards an increase in sleep. Some participants even viewed this period of time as a home vacation or a prolonged weekend. Advantages of staying home included increased comfort and situational calm as well as relief from school bullying. When asked what positivity they could draw from their current circumstances in the pandemic, some participants also expressed a positive outlook towards time spent alone, away from friends. One participant explained his situation as a “break from everything” while another participant appreciated the solitude of home life. One participant said: “Well, you can, uh, be more with your family. Hmmm and... well, since

when you were tired when you went to school, well, now you can rest more.” (P38, boy, 10 years).

## **2. Bonding time**

The second theme describes the greater time participants reported spending with others, such as family members and pets.

### **a) Family**

One of the main benefits for participants was the ability to spend more time with their family. Participants often mentioned having more time to spend specifically with their parents, seeing them more often and doing activities together. The activities they completed with their families were recounted in detail and were often described as activities that participants otherwise would not have had the opportunity to do under normal circumstances. For example, one participant explained how he and his father had the time to build an outdoor rock-climbing wall together. Some participants expressed a feeling of greater closeness to their family and viewed the extra time together as a way to create a greater bond with their parents. One participant stated feeling less isolated from his family as he previously had felt when in school. Feelings of support and well-being were also expressed as a result of increased time spent with siblings. Having siblings present to play with helped some participants feel less lonely. Playing with siblings and neighbours and visiting extended family such as grandparents and cousins were common *outdoor* pastimes during the lockdown. One participant expressed feeling as if the pandemic was not as

present when they were playing with their neighbours. Another mentioned: "...That I spent time with my mom and dad and sister. And that I was not always separated from them. Like at school." (P26, girl, 8 years).

### **b) Animals**

Some participants stated that being home from school allowed them to spend more time with their pets. When asked if animals or pets can be considered friends, some participants felt that pets could be viewed as friends with which they were able to play and spend time. Others viewed animals as members of the family or in need of care, not unlike a child. One participant stated viewing their pet as a source of comfort while others saw their pets as companions, they could play games with, such as fetch, and spend time with while going on walks during confinement. Another participant stated the following: "...You can always play with them, and if you're bored or something you can always go see them and play fetch with them or something like that." (P83, boy, 14 years).

## **3. Free time**

The third theme describes the greater amount of time participants reported having for their projects, hobbies and activities.

### **a) Playing outside**

The data frequently demonstrated the positivity participants derived from the increase in outdoor activities during the pandemic. During regular school time, participants felt they remained seated at their desks throughout the day; whereas, during the pandemic, they expressed satisfaction in playing outside more frequently. Biking, swimming and taking walks were enthusiastically mentioned as enjoyable outdoor activities. One participant

reported learning how to bike for the first time during the pandemic. Others mentioned playing outdoor sports, such as basketball and hockey, and going to the park with neighbours. Some participants expressed the positive impact on mood that outdoor play provided. Playing outdoors also provided many participants a break from screen time. Those who were isolating at home missed playing outside with friends and neighbours and were excited to resume these activities. A participant described his experience as: “..It’s that I can play outside much more often. Whereas at school you’re always sitting at your desk, you can’t ride your bike.” (P36, boy, 10 years).

#### **b) Educational programs**

Several participants mentioned listening to educational programs during the pandemic. Some educational and immersive programs were provided by the government for children and families and covered various topics available online and on television. These productions were enjoyed during participants’ free time as well. Some participants mentioned their preference for these educational shows over their more traditional classes and found they allowed for easier, more accessible learning. One participant stated the following: “...Before, we listened to Marie-Ève’s class, but I didn’t really find that fun. There was only French or math. All the time, all the time, all the time. It wasn’t really fun. But since I discovered “School at home” (a Quebec TV show that broadcast academic content during the pandemic), I...I really like it. No need to work, they explain everything to you!” (P07, girl, 10 years).

#### **c) Creative projects and hobbies**

Often, participants mentioned having greater time to complete projects and enjoy their hobbies. They appreciated having more time to spend on their hobbies such as reading books, writing stories, cooking, watching movies and playing video and/or board games. For example, one participant felt that the increase in free time allowed him to develop his passion for video games. Others found that the pandemic allowed them to create projects such as their own games and websites. Participants described these projects with enthusiasm and a creative voice. One participant described collaborating with her sister on a 70-question quiz. Another participant mentioned creating a website with a friend to help younger students at his school study. Benefits from completing these projects included the ability to learn new things as well as feelings of accomplishment and enjoyment. A representative excerpt from one participant suggests: “..In fact, what I did during my free time, well not my free time, what I did during confinement was write a lot, tons of stories and that’s what I liked the most.” (P80, boy, 13 years).

#### **4. Technology usage**

The fourth theme describes participants reported usage of technology to connect socially and to play and share with others. This theme also describes participants’ thoughts on their future usage of technology.

##### **a) To see friends, classmates, family members and teachers**

During the lockdown, many participants were introduced for the first time to video conferencing applications such as Zoom, Skype, Facetime and Microsoft Teams and chat applications such as Messenger Kids to contact friends and family or for online learning. Other participants were familiar with these means of virtual communication prior to the

pandemic. Despite a clear preference for seeing family and friends face to face, some participants nonetheless appreciated the opportunity to talk to friends and classmates virtually. Participants mentioned playing games with friends but also just relaxing, talking and eating with them virtually. For most, seeing friends and family made them feel better. Specifically, friends were generally seen as a source of support and comfort. Positive changes in friendships also developed during the pandemic. One participant stated that previously her group of friends did not spend much time together outside school hours, however, now with virtual platforms, they have begun talking and seeing each other online during the weekends. As with their friends, participants also utilized virtual communication to interact with extended family such as cousins and grandparents. Furthermore, participants enjoyed interacting with their teachers during online learning and expressed feeling better when able to stay in contact with them and fellow classmates. One participant stated the following: “Yeah, a lot. My friends talk to me all the time, and the last time I talked on Messenger with my friend, it lasted like three hours!” (P21, boy, 5 years)

**b) To play and share with friends and family**

Participants used technology in creative ways to play and share with friends. Together with friends or family members, participants would not only talk but also read books together, recount stories, play board and video games, help each other with schoolwork, build Lego, and work on projects together. Information was also exchanged between friends and family members by showing toys, games and drawings to one another on virtual platforms. One participant stated being able to continue taking their guitar lessons virtually. Several participants expressed completing homework together through online platforms. A



representative excerpt from one participant mentions: “I have an application on Messenger Kids and we have games that we can play together.” (P42, girl, 8 years).

### **c) Future usage**

Participants were asked if they would continue to use video conferencing and/or chat applications once the pandemic was over. Despite their preference for in person contact, most perceived advantages in continuing to occasionally use technology to speak with friends and family post-pandemic. Many participants found that these forms of maintaining contact would be useful as some friends and family members live further away and they cannot see them face to face very often. Others believed that it would allow them to spend time with friends on the weekend and outside of school hours if they cannot get together, if their friends are sick, or if they are on vacation. One participant mentioned using technology in the future, “just to see how my friends are doing”. Additionally, participants who spent time playing video or online games expressed the desire to continue using online platforms after the pandemic as well. One teenager said: “More FaceTime because I like to see their face! Uh... in general, I think it’s fun to see our friends again, even if you’re not face to face. But more face to screen! It’s a bit like that. Well... yes... Because sometimes, we can’t see each other, because... like if you travel, somewhere, far away, my friends it’s harder... Like to see them, to tell them: “hey hello”, also to see the image... of another country. Yeah, I’m gonna keep doing this...” (P18, boy, 13 years).

## **Discussion**

The objective of this qualitative analysis was to examine youth’s perspectives on what they perceived as positive consequences of the pandemic and how they made sense

of their daily lives and routines. The lockdown measures taken during the spring and summer months of 2020 impacted children and adolescents in unique ways. The adverse impacts of the pandemic should not be minimized or overshadowed in any way and are multiple and far reaching. However, despite its deleterious effects, youth were able to derive and recognize positivity during the adverse COVID-19 period.

An overarching theme represented by the data emphasized the increased time participants had to spend with family during the pandemic than previously possible. Participants highlighted the greater closeness they felt with their family, especially their parents, as well as the enjoyment they received from playing together. The quality of parent-child relationships is crucial for healthy child development and benefits health and well-being across the lifespan (Foran et al., 2020). Parents play an essential role in nurturing resilience in their children, allowing them to overcome adverse life events such as COVID-19 (Jiao et al., 2020). Furthermore, a redefinition of parent-child relationships may have occurred, allowing children and youth to make sense of their current situation and adapt (Procentese et al., 2021). Parent-child play provides direct attention and support from parents ultimately promoting enduring relationships (Cohn, 1990; Henry, 1990; Burriss & Tsao, 2002). Greater time spent with siblings during the pandemic was also perceived as positive. Playing with siblings helped some participants feel less lonely and more supported. Sibling relationships encourage social and emotional development across childhood and adolescence, allowing youth to develop competencies that can be generalized to other relationships (e.g. Lamb et al., 2014). Furthermore, positive sibling relationships can promote resilience and the ability to overcome adversity (Bowes et al., 2010; Wojciak et al., 2018) while acting as a source of protection during stressful life

events (Gass et al., 2007). These previous studies suggesting effects on resilience and well-being align with comments made by the participants in this study and underscore the benefits of sibling and family support more broadly during an adverse and stressful life event such as COVID-19. The findings of the current study accentuate the importance and need of parent-child and sibling bonding time during the pandemic and this should be encouraged in children and adolescents' daily lives post-pandemic.

Many participants mentioned that prior to the pandemic, they lacked free time and felt stressed to complete obligations, school related or otherwise. However, during the lockdown, participants felt more at ease and calmer with more free time to spend with family, rest or sleep in, and complete hobbies and projects. Children and adolescents may be (over)burdened with school and extracurricular activities, and raised in increasingly pressured lifestyles, often depriving youth of unstructured play or free time and the protective benefits it offers (Ginsburg, 2007; Rosenfeld & Wise, 2000; Elkind, 2001). Play has an important role in child development allowing children to create and explore the world around them (Hurwitz, 2003). Time spent in play has been shown to affect youth's social, emotional, cognitive and physical well-being (Erickson, 1985; Barnett, 1990; Pellegrini & Smith, 1998; Smith, 1995; Canadian Public Health Association, 2019). Having an increased amount of time to play outside and complete creative projects was a common response to what participants enjoyed about staying home during the pandemic. Biking, swimming, taking walks and playing sports outside were among the main activities that participants expressed enjoying during COVID-19. The importance of physical activity on health has been repeatedly demonstrated across the lifespan (e.g. Warburton et al., 2006). For youth, physical activity impacts healthy growth and development in

numerous functional domains (Janssen & Leblanc, 2010) and has been associated with protective factors related to resilience (Hjemdal et al., 2006; Strohle, 2009). Participants also emphasized the importance of having more time to create projects and spend time on their hobbies. Creativity in children is associated with better academic performance and learning (Epstein, 2008) and can help overcome unprecedented changes, global challenges and risks (e.g. Friedman & Mandelbaum, 2011; World Economic Forum, 2006). Arts and crafts activities where creativity emerges may also help youth and children process their emotions and thoughts, allowing them to make sense of their circumstances during the pandemic (Kilskar et al., 2018; Procentese et al., 2021). Participants' responses bring to light the capacity of youth to create novel projects including their own games and websites. Similarly, many participants noted the opportunity for extra sleep and rest during the pandemic. The benefits of adequate sleep have repeatedly been demonstrated in association with child and adolescent academic performance, mood, emotion regulation, cognitive functioning and attention (Vriend et al., 2012; 2013; Johnson et al., 2000; Fredriksen et al., 2004). Current pediatric guidelines already recommend optimal sleep and time for physical activities and play (Paruthi et al., 2016; Chaput et al., 2002; Yogman et al., 2018), however, the findings suggest that these may not be met. Greater attention should be focused on avoiding overburdened schedules and protecting time for unstructured play and rest post-pandemic for youth to build resilience and develop in a healthy manner.

Participants derived some positive benefits from technology use as it allowed them to stay in contact with friends, classmates, teachers and family members. Many participants also used technology to play games and video-games. As such, the results of this study should be considered alongside emerging work suggesting the rising trend of screen time

and video gaming during the pandemic and its possible negative effects on physical and mental health (e.g. Sultana et al., 2021). Nonetheless, in the current work, despite the majority of participants' preference for interacting with friends and family in person, they acknowledged virtual and screen-based interactions and play could be an alternative when in-person interactions were not possible. Participants expressed feeling better when seeing their friends even if it had to be online and the importance of friendship to counter loneliness, confirming the importance of friendship for well-being (Caprara et al., 2006; Rubin et al., 2005), especially during times of stress (Amichai-Hamburger et al., 2013). Other research suggests that feelings of loneliness have increased during the pandemic for youth (Loades et al., 2020). Interacting with friends, classmates or family members online may thus carry meaningful benefits when proximal interactions are not possible. Furthermore, using online platforms to connect with others may help youth and children share and process their emotions and thoughts in order to make sense of the pandemic measures they faced daily (Procentese et al., 2021). Online social groups can offer meaning and safety for users (Procentese et al., 2020, Gatti & Procentese, 2020). When participants were asked if they would continue to use technology to interact with peers and family, most responded that they would indeed continue to use this method of communication even once the pandemic ceased. Nonetheless, interacting online did not replace in person interactions which were still the preferred choice of participants.

When participants were asked to describe differences between siblings, animals and friends, animals were similarly viewed as family members and friends. Many expressed an appreciation of the increased time they had to spend with their pets during COVID-19. Relationships with animals or pets may positively impact youth development, especially

in times of stress where they may improve feelings of safety and assist youth in coping with and recovering from disaster (Nagengast et al., 1997; Australian Companion Animal Council Inc., 2009). Pets may also influence youth resilience by providing stability during traumatic or disruptive events (Travis, 2014). Furthermore, as expressed by several participants, pets may often act as a source of comfort for children and adolescents (e.g. Ross & Baron-Sorensen, 2007). The findings of this study suggest opportunities to form bonds with animals are valuable both during and post-pandemic.

Notably, results from this qualitative study are in line with qualitative studies conducted with youth outside of North America (Amrutha et al., 2021; Idoiaga et al., 2020; Tateo & Dario, 2020). Common themes such as the appreciation of greater family time, interacting with friends via technology and increased time for projects and creativity were again found in the current study, suggesting the significance of these factors for youth across cultures and contexts.

### **Limitations**

The main limitation of this study concerns the participant sample. The sample was predominantly from more favorable socio-economic environments and the majority of participants were Caucasian and are thus not representative of all families, children and adolescents. Future research should consider reaching a larger and more representative sample in order to examine the full range of experiences and attitudes on the pandemic. Families of lower-socio-economic status may not have access to technology to participate in online schooling or to see friends and family members via videoconferencing or other forms of virtual communication. Furthermore, these families may have less time to spend together or less free time in general due to a lack of resources to face pandemic-related

consequences or stressors such as loss of employment or home schooling (Masonbrink & Hurley, 2020). Additionally, the variability in age (5-14 years old) of participants may have affected their ability to describe their thoughts and feelings extensively. Younger participants who were interviewed alongside their parents may have responded differently than other participants who were interviewed alone. Additionally, participants who were more introverted or shy may have been more hesitant to share their views. Thus, their responses may be less well represented in the data. Lastly, as data collection was conducted during the first wave of the pandemic, perspectives on positive elements of COVID-19 may have changed as time elapsed and as novelty of the situation diminished. Future work specifically designed to draw out positive change in the wake of the COVID-19 pandemic would be beneficial to more specifically, and quantitatively, document potential positive impacts on self-efficacy or resilience. Furthermore, future research could delve into differences in perspective that may arise by age and gender.

## **Conclusions**

The findings of this research paper demonstrate that despite the extensive negative impacts of the COVID-19 pandemic, there is an opportunity to learn about aspects of child functioning and development that may protect or bolster well-being during adversity. Relationships with family members, friends, classmates, teachers and animals, the increased time to rest, create projects, work on hobbies and play outdoors emerged as essential to youth during the COVID-19 pandemic. Despite previous knowledge of the benefits reaped from these elements, our study suggests these needs are still not being met during youth's daily lives. The value of encouraging and promoting these behaviours and

actions will be an important lesson to retain post-pandemic and may be the focus of potential loci for interventions and policy development.

Among the many adaptations that can be made post-pandemic, some can be implemented at the school level. First, teaching resilience at school may be an important method for youth to learn how to manage future pandemics or hardships as well as support general child and youth well-being post-pandemic (National Academies of Sciences, Engineering and Medicine, 2021). For example, incorporating a curriculum including social emotional skill development, interactive teaching methods and parent and youth support groups, may bolster youth resilience (Khanlou & Wray, 2014; Wilke et al., 2020). Encouraging supportive and caring student-teacher and peer relationships at school can also promote resilience (Cahill & Dadvand, 2020) and better conflict resolution, school enjoyment, and motivation to learn (Ellerbrock, 2015). Optimizing and increasing recess time, both indoors and outdoors, with a variety of options for play may also help encourage social connectedness, creativity and play and the benefits they provide for development and well-being (United Nations Convention on the Rights of the Child, 2013; Canadian Public Health Association, 2019). Second, youth should be included in plans to resume everyday routines such as restarting in-person classes, organizing recreational activities and community involvement in order to help develop and restore self-efficacy, coping skills, hope, and purpose or meaning post-pandemic (Osofsky et al., 2018). Including youth in this planning may also allow policy development to have a greater focus on youth well-being when preparing for future pandemics or global disasters (Danese et al., 2020; Peek et al., 2018). Third, schools and community centers may wish to encourage more parent and family events or activities post-pandemic to continue to strengthen these important



relationships and the benefits they provide for youth development and resilience (e.g. Masten & Stefanidi, 2020). Fourth, improving digital and internet access in order to support online learning and social connectivity via online platforms is essential for future pandemics that could again lead to school closures and isolation. This may include loaning digital devices to students and families or providing internet hotspots for students living in close range to their school (e.g. Samba, 2020; McPhee, 2021). Collaboration between schools, families, community centers, and policy makers is essential in order to incorporate these suggestions and help children and youth develop and build resilience for the future.

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**Appendix A**

Table A1

*Socio-demographic data for participants (N =67)*

| Variables                              | Definition and description                            | Distribution |
|--|---|--------------|
| Age                                    | 5-6 years of age                                      | 16 (23.9%)   |
|  | 7-8 years of age                                      | 17 (25.4%)   |
|  | 9-10 years of age                                     | 16 (23.9%)   |
|  | 11-12 years of age                                    | 7 (10.4%)    |
|  | 13-14 years of age                                    | 11 (16.4%)   |
|  | M   | 8.91         |
| Gender                                 | SD  | 2.64         |
|  | Male  | 36 (54%)     |
|  | Female  | 31 (46%)     |
| Ethnicity of parents                   | Caucasian   | 50 (74.6%)   |
|  | Other   | 7 (10.5%)    |
|  | Unknown   | 10 (14.9%)   |
| Mother's years of schooling            | M   | 19.1         |
|  | SD  | 3.1          |
| Father's years of schooling            | M   | 17.3         |
|  | SD  | 3.2          |
| Mother's employment status             | Employed, including self-employed, full- or part-time | 50 (74.6%)   |
|  | Out-of-work, including homemaker, looking for job     | 5 (7.5%)     |
|  | N/A, including, retired, student and other            | 2 (3%)       |
|  | Unknown   | 10 (14.9%)   |
| Father's employment status             | Employed, including self-employed, full- or part-time | 55 (82.1%)   |
|  | Out-of-work, including homemaker, looking for job     | 0 (0%)       |
|  | N/A, including, retired, student and other            | 0 (0%)       |
|  | Unknown   | 12 (17.9%)   |
| Place of residence                     | Urban setting   | 44 (65.7%)   |
|  | Suburban setting                                      | 23 (34.3%)   |
|  |   |              |
| Schooling at the time of the interview | In person school attendance                           | 9 (13.4%)    |
|  | Home schooling or online schooling                    | 58 (86.6%)   |

Table A2

*Interview guide*

|             |
|-------------|
| # Questions |
|-------------|

1. How old are you?
2. How are you doing?
3. Why is it important to have friends?
  - a. What do you like about your friends? How do you benefit from having friends?
4. Is it important to be able to see/play in person with your friends? Why is it important?
5. What do you miss the most since you have to stay home/the school is closed?
6. How do you feel since you can't play/interact/communicate in person with your friends?
7. Does it bother you to see your friends from a distance and not be able to play with them? Why?
  - a. How does it make you feel?
8. Since school closed, have you contacted or seen any friends?
  - a. How did you contact them (in person, in person 2m away, by phone, Skype, Zoom, Facetime, Messenger Kids, etc.)?
  - b. What do you do during your calls? (Chatting, Video Games, Sharing toys/crafts/etc?)
9. (If virtual contact) How do you feel about talking/playing with your friends on the phone/facetime/...?
  - a. What's different about seeing them in person?
  - b. Do you think you will continue to communicate this way with your friends?
10. What can you do with your friends even if you can't see them in person?
11. (If siblings at home) How have things been with your sister(s) and/or brother(s) at home?
  - a. Are siblings like friends?
  - b. Why? What's different/similar?
12. Do you have a pet?
  - a. Do you think a pet can be like a friend? Why?
13. What did you like most about staying home?
  - a. What did you like the least?
14. Can you tell me in your own words what a friend is?
15. What is the first thing you will do when the virus is "gone"/when you can go out of the house/see people again?
  - a. What are you most looking forward to?
  - b. Are you looking forward to going back to school? Why?
16. Did you have fun doing this interview with me today? How was it for you?

Table A3

*Representative verbatims by theme and sub-theme*

|                   |
|-------------------|
| 1. School changes |
|-------------------|

|   |   |   |
|---|---|---|
| <b>a) Structure changes</b>   |   |   |
| Um... but the fact that like the more I can I don't go to school, so like I can really I I don't have to do that all the time, do this, do that... I do what- I go at my own pace. Let's say because sometimes, like in French, I find that it goes really too fast and in math, it goes very slowly, I find. Now I can read my book all the time. (P61, boy, 11 years) | Not even a uniform anymore! You can do your work in a T-Rex costume, no one will judge you, you're not at school! In pajamas, no problem, I dress like I'm at school because I'm not lazy, even if my sister tells me otherwise. But...ya but that's it. (P81, boy, 10 years) | Uh I found I found that that my time was much more flexible and I could like organize it myself. (P85, boy, 13 years)   |
| <b>b) Time to rest</b>  |   |   |
| Well, you can, uh, be more with your family. Hmmm and... well, since when you were tired when you went to school, well, now you can' can rest more. (P38, boy, 10 years)  | Well, what I liked most about staying at home is that we don't have to do a lot of work, we're always free, we can play a lot more than before. And, especially, sometimes, we have subjects that we don't like at school, it can let us rest. (P47, boy, 10 years)           | It's kind of a break from everything. Like, I love going out, like going out with my friends and like going to their houses, you know. But it's a break. (P83, boy, 14 years) |
| <b>2. Bonding time</b>  |   |   |
| <b>a) Family</b>  |   |   |
| Yes, because you can stay at home and you have your parents next to you because my father is working online (teleworking). (P74 boy, 9 years)   | Uh... well... I like uh... because we spend more time with my parents. Usually I go to school all the time, it's... and we say "go, go, go, quick, quick", all the time! And that's it... (P13, girl, 9 years)  | That I spent time with my mom and dad and sister. And that I was not always separated from them. Like at school. (P26, girl, 8 years)   |
| <b>b) Animals</b>   |   |   |
| Um... I really enjoyed playing with my dog, um... also I like that we're doing school at home. (P04, girl, 8 years)   | But I have at least one friend... I have my little cat. Yes, I have my little cat, at least he's the one who keeps me busy the most. (P36, boy, 10 years)   | Yeah. You can always play with them, and if you're bored or something you can always go see them and play fetch with them or something like that. (P83, boy, 14 years)        |
| <b>3. Free time</b>   |   |   |
| <b>a) Playing outside</b>   |   |   |
| I don't know, it seems like at home I want to do a lot of things; I want to go play outside, I want to go do a lot of things, but at school like I have to do things. (P02, girl, 12 years)   | No. It's that I can play outside much more often. Whereas at school you're always sitting at your desk,   | To do...to go outside in the yard. To go in the pool...ah no the pool was open when school was open. Uh...to go bike riding more,   |

|   |   |   |
|---|---|---|
|   | you can't ride your bike.<br>(P36, boy, 10 years)   | um...to go for walks... (P06, boy, 8 years)   |
| b) Educational programs   |   |   |
| Well, I'm fine...I'm finding things to do. And I did a little bit of..., I played a little bit with dominoes. I played with (inaudible) with my brother. I listen to my educational programs on Télé-Québec in the morning. (P03, girl, 10 years)   | Uh...what about the programs that we listen to...that are like doing school at home?<br>That...that's... Before, we listened to Marie-Ève's class, but I didn't really find that fun. There was only French or math. All the time, all the time, all the time. It wasn't really fun. But since I discovered "School at home" (from Télé-Québec), I...I really like it. No need to work, they explain everything to you! (P07, girl, 10 years) | Well um, with one of my friends we did a project. It's a website well it's to help uh...the third and fourth years to study. (P38, boy, 10 years)   |
| c) Creative projects and hobbies  |   |   |
| Hm of school at home. Well, at the beginning of the pandemic we had the freedom of projects, me and my sister, we made, we concocted, a quiz of more than 70 questions grouped by different themes. (P81, boy, 10 years)  | Well, I liked that I had more to do my projects, what I had to do. I was really more free in what I had to do. We didn't have...we don't have as strict a schedule. I have more time to play, to do my projects. (P03, girl, 10 years)  | Ya so that's it, my brothers... we did some nice projects at the beginning of the pandemic together, all as a team, but then my brothers wanted...let's say my brothers play more together than I do with them. In fact, what I did during my free time, well not my free time, what I did during confinement was write a lot, tons of stories and that's what I liked the most. (P80, boy, 13 years) |
| 4. Technology usage   |   |   |
| a) To see friends, classmates, family members and teachers  |   |   |
| Yeah, yeah. I'm sure we'll keep using them. So what it's really going to have done is, before, we weren't really a group of friends that went out on the weekends, that went to the park for an afternoon. But now, this is the way we see each other and it's pretty good (online), so we tried it, and it was really fun. And we all liked it. So, we'll probably do that. It's going to bring another way of | I did Zoom with my class. So now I can see friends, and... (P34, girl, 7 years)   | Yeah, a lot. My friends talk to me all the time, and the last time I talked on Messenger with my friend, it lasted like three hours! (P21, boy, 5 years)  |

|   |   |   |
|---|---|---|
| <p>seeing each other probably. (P46, girl, 13 years)</p>  |   |   |
| <p>b) To play and share with friends and family</p>   |   |   |
| <p>Ehh yes, I've seen my whole class on conference calls. Ohh eh we, we played games, we do eh lots of things. (P44, boy, 6 years)</p>  | <p>I have an application on Messenger Kids and we have games that we can play together. (P42, girl, 8 years)</p>  | <p>...Let's say, in what we don't like, we help each other a little bit, it's because there's something that we don't understand if- if not -no yes I sometimes I send them I send some of my friends like I have challenges in Legos that I have like making something in Lego there and they ask me to show them how to build it and I send them several photos to show how to build it and that's it. And if not - no, I also send them a few little ideas that they could do there so that we send each other little things so that we don't get bored there, little things with Legos, things like that. (P62, girl, 13 years)</p> |
| <p>c) Future usage</p>  |   |   |
| <p>Because sometimes I want to see people. Sometimes I want to FaceTime. Sometimes FaceTime is a little bit the same thing. Yes, when they're sick. I could still FaceTime them. (P04, girl, 8 years)</p> | <p>More FaceTime because I like to see their face! Uh... in general, I think it's fun to see our friends again, even if you're not face to face. But more face to screen! It's a bit like that. Well... yes... Because sometimes, we can't see each other, because... like if you travel, somewhere, far away, my friends it's harder... Like to see them, to tell them: "hey hello", also to see the image... of another country. Yeah, I'm gonna keep doing this...(P18, boy, 13 years)</p> | <p>Like, let's say, on the weekend... when well... I can't invite them over, but I can at least FaceTime them to see how they're doing. (P19, boy, 9 years)</p>   |