SPECIAL SECTION ON EQUITY AND THE COVID-19 RESPONSE IN CANADA: QUALITATIVE RESEARCH



"It reflects the society in which we live, except now everything is accentuated": youth, social inequities, and the COVID-19 pandemic

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Abstract

Objectives The COVID-19 pandemic has been an extraordinary moment of uncertainty and rapid transformation. The effects lockdowns had on youths' mental and physical health, as well as the challenges they posed for young peoples' learning, were of great concern. It quickly became clear that government responses to COVID-19, in particular regarding the social determinants of health, were not equally experienced across all social groups. This paper adopts an interdisciplinary lens at the intersection of health and education and uses Max Weber's lifestyle theory to analyze the inequitable experience of the COVID-19 pandemic. We examine most directly social inequities in education during the first wave of COVID-19 and explore long-term effects on youths' educational opportunities, health, and well-being.

Methods We use focus group materials collected from our Spring 2020 study. This study explored how youth were differentially experiencing the pandemic. Participants included 18 youth between the ages of 13 and 18 (11 girls, 7 boys). Participants were stratified by private and public secondary schools and we ran focus groups in which experiences of the pandemic were discussed. **Results** Our results show (1) clear differences in early access to education for youth who attended public and private institutions in Quebec during the COVID-19 pandemic; (2) access to the internet and computers offset learning opportunities for students across Quebec throughout the COVID-19 pandemic; and (3) few of the differences experienced during the pandemic were based on youth's behaviours, or life choices, but rather stemmed from differences in material and structural opportunities, based largely, but not solely, on what type of school the youth attended (public or private).

Conclusion The way in which the COVID-19 pandemic was handled by the Quebec education system deepened existing social inequities in education between private and public school attendees. Given the importance of education as one of the main determinants of health, particularly during transition periods such as adolescence, we must ensure that future policies do not repeat past mistakes.

Résumé

Objectifs La pandémie de la COVID-19 a été un moment d'incertitude et de transformation rapide hors du commun, soulevant des questions inédites sur les effets du confinement sur la santé mentale et physique des jeunes ainsi que sur les défis engendrés en termes d'apprentissage chez les jeunes. Il s'est rapidement avéré que les réponses du gouvernement à la COVID-19, en particulier en ce qui concerne les déterminants sociaux de la santé, n'étaient pas vécues de la même manière dans tous les groupes sociaux. Cet article adopte une optique interdisciplinaire à l'intersection de la santé et de l'éducation et utilise la théorie du mode de vie de

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Max Weber pour analyser l'expérience inéquitable de la pandémie de COVID-19. Nous examinons plus directement les inégalités sociales dans l'éducation pendant la première vague de COVID-19 et explorons les effets à long terme sur la santé et le bien-être des jeunes.

Méthodes Nous utilisons les données recueillies lors de notre étude du printemps 2020 qui a exploré comment les jeunes vivaient différemment la pandémie. Les participants sont 18 jeunes âgés de 13 à 18 ans (11 filles, 7 garçons). Les participants ont été stratifiés par écoles secondaires privées et publiques et nous avons organisé des groupes de discussion dans lesquels les expériences de la pandémie ont été discutées.

Résultats Nos résultats montrent 1) de nouvelles et profondes inégalités sociales dans le système d'éducation qui ont été créées par les mesures de confinement gouvernementales au Québec et 2) un accès inéquitable aux ressources mobilisées pour s'adapter aux mesures gouvernementales.

Conclusion L'étude du cas des inégalités sociales en contexte d'éducation pendant la pandémie offre d'importants apprentissages sur les inégalités sociales en général. Nous concluons cette étude en réfléchissant à l'espace intersectoriel important entre l'éducation et la santé pour les jeunes.

Keywords Youth · Social inequities · COVID-19 · Education · Quebec

Mots-clés Jeunes · inéquités sociales · COVID-19 · éducation · Québec

Introduction

On March 11, 2020, the World Health Organization (WHO) declared the COVID-19 outbreak a global pandemic. The province of Quebec followed up by declaring a health emergency on March 13, 2020, with the following restrictions: physical distancing, closing of public spaces, and prohibition of private gatherings. On March 16, 2020, an announcement was made that all school and higher education institutions would also be closed. These changes to the social landscape culminated in a full lockdown announced on March 24, 2020, with only essential outings permitted (Alexander & Shareck, 2021).

The COVID-19 pandemic became an extraordinary moment of uncertainty and rapid transformation, with unprecedented questions about the effects the lockdowns would have on youths' mental and physical health as well as challenges for young peoples' learning (Brown et al., 2020; Van den Broucke, 2020). Education is one of the most critical social determinants of health. These determinants include nonmedical factors shaping health such as economic policies and systems, development agendas, social norms, social policies, and political systems (WHO, 2008). Inequities in education can be exacerbated during health emergencies, with long-lasting effects on education possibilities and health (Settersten et al., 2020). For adolescents and young adults (ages 12-18), it was surmised that the impact of lockdowns might be heightened due to their increased desire for autonomy and peer connection, both hindered when required to physically distance from friends and remain home (Ellis et al., 2020). Research since the first wave lockdown suggests that youth have especially suffered from the COVID-19 crisis (Pieh et al., 2020), with particular concerns voiced about their educational opportunities and mental and physical health (Pieh et al., 2020; Barrett, 2021).

While one of the particularities of the COVID-19 pandemic was that the restrictions were largely population-based, it quickly became clear that the effects of COVID-19, with regard to the social determinants of health, were not equally experienced across all social groups, and were deepening. Basic social inequities at the core of the WHO report on the Social Determinants of Health (2008), such as income, education, unemployment and job insecurity, working life conditions, food insecurity, housing and basic amenities, and the environment, all became daily subjects in news reports (Carde, 2020; Laughland, 2020). They were also quickly taken up as major concerns by scholars studying these inequities (Bambra et al., 2020), with some even terming the COVID-19 pandemic a syndemic (Horton, 2020).

One of the most important social inequities in the province of Quebec during the first wave was quickly apparent regarding educational opportunities for youth, particularly those in high schools (aged 12-18). The private and public secondary systems in Quebec, a province of 8.5 million people, responded differently to school closures (see also Thompson et al., 2021). Across the province of Quebec, 21% of secondary school students attend private schools (Hurteau & Duclos, 2017). Students from upper middle-class and more advantaged families, in terms of economic and social resources, are overrepresented in these schools (Kamanzi, 2019). Many private schools also select students based on grades and testing, which contributes to explaining their higher achievement outcomes in most national and international performance assessments such as the PISA (Program for International Student Assessment; OECD, 2020).

In March 2020, private schools introduced distance learning within 2 weeks of school closures, while most public secondary schools took almost 2 months to return to any semblance of formal instruction, much of it without synchronous online methods (Thompson et al., 2021). Instead of formal instruction for public school children, the education minister decided to distribute online learning kits for students to use during the first 2 months of the pandemic, in their own time and at their own discretion. These differences in responses can be understood as a reflection of processes operating at the family and school levels (Russo et al., 2020). At the family level, the higher (average) socioeconomic means of the families sending their children to private schools translates into facilitated access to computers, high-speed internet, and adequate workspaces in the home. At the school level, private schools typically operate within smaller, more flexible administrative structures (e.g., outside of school boards, without being subject to public-sector union rules), thus rendering it simpler for them to move to online teaching than is the case within the public system.

The prolonged interruptions experienced by students in the public system are problematic considering evidence that summer breaks disproportionately impact the academic achievement of students from low-income households (Dupéré et al., 2020). These interruptions are considered a major factor explaining the gap in academic achievement between society's richest and poorest students (Brown et al., 2020). Corroborative evidence in many parts of the world in the first months of the pandemic revealed cleavages in educational opportunities based on whether one was a private or public school attendee (Brown et al., 2020).

Even when schooling moved online during the pandemic, with little time or training for teachers to adapt, research from Ontario showed how young peoples' experiences of distance learning during the pandemic were embedded within their sociopolitical contexts. Distance learning afforded inequitable learning opportunities and challenges linked to family configurations and family resources with the most vulnerable students facing disproportionate academic, psychological, and social consequences (Barrett, 2021). Additionally, as known from decades of research in life-course epidemiology, inequities in educational opportunities have both short- and longterm effects on health (Kuh & Ben-Shlomo, 2004). These inequities are particularly damaging to peoples' trajectories if such experiences take place during transition periods such as adolescence and young adulthood (Viner et al., 2015). The rapid physical and social development during adolescence suggests that this period may be a critical or sensitive period for later health and disease (Viner et al., 2015).

Additionally, the turn to distance learning during lockdown occurred with little consideration of social inequities in access to the resources that many youth needed to be able to conduct their classes from home. Inequities were increasingly documented regarding the space, privacy, and calm required to properly work at home. Lack of access to technology such as personal computers and high-speed, unlimited internet connection also occurred among certain families and their children, making some unable to fully engage in, and benefit from, distance teaching activities (Alexander & Shareck, 2021). As well as familiarity with the digital environment, online learning also requires additional skills in independent learning. These often include the availability of parents or other educated family members at home to help navigate this environment (Settersten et al., 2020).

There is a seemingly constant tension in the health inequalities literature regarding the role of material opportunities (life chances) versus behavioural practices (life choices) in the shaping of these inequalities (Macintyre, 1997; Townsend & Davidson, 1982; WHO, 2008). The emphasis we give to either material or behavioural explanations for explaining health inequities has profound impacts on both our etiologic understanding of the problem and the intervention and policy changes required. The former places emphasis on the reduction of inequities in material opportunities and resources, whereas the latter places emphasis on inequities in individual behaviours (Frenk et al., 1994). We endeavoured to explore the life chances and choices of youth in Quebec during the first wave of the pandemic to help us better understand what the relative roles of material opportunities versus behaviours were in shaping social inequities in education and well-being.

To do so, we adopted a theoretical lens based on Max Weber's notion of lifestyle (Weber, 1922), taken up by theorists of social inequities such as Pierre Bourdieu and, more recently, health sociologists and public health inequity thinkers (Cockerham et al., 1997; Frohlich et al., 2001). Weber believed that peoples' lifestyles can be understood in terms of the interplay of Lebensfuhrung (life conduct or life choices) and Lebenschancen (life chances). Lebensfuhrung refers to peoples' lifestyle choices and Lebenschancen are the likelihood of realizing their choices (Cockerham et al., 1997). Life chances include the opportunities individuals have to improve their lives. According to Weber's theory, life chances are positively correlated with one's socioeconomic status. Life choices, on the other hand, are not just autonomous, individualized decisions. Choices people make are structured by their income, occupation, education, and status.

In this article, we set out to explore how a small number of youth attending secondary school in the province of Quebec were differentially experiencing the government response to the pandemic. While there was much concern voiced about youth (United Nations Inter-Agency Network on Youth Development, 2020), the actual voices of youth themselves had seldom been heard, particularly regarding the social inequities they were experiencing. Therefore, we worked closely with a relatively small group of youth to create space for their voices and perspectives about the pandemic. We also explored through our participants how government responses or non-(slow) responses to the pandemic were viewed to be a loss or barrier to their future life chances.

Methodology, methods, and context

We conducted this pilot study as part of the research program of the Myriagone McConnell-University of Montreal Chair on Youth Knowledge Mobilization. Our Chair aims to create, share, and mobilize knowledge with, by, and for youth. In the spring of 2020 during the first wave of the COVID-19 pandemic, we recruited youth from different areas of Quebec to explore their experiences of the pandemic. Our project, entitled "Picturing Life during the Pandemic", used an interdisciplinary lens at the intersections of education and health studies. The study was approved by the institutional ethics review committee at the University of Montreal.

Recruitment and participants

We recruited youth from public and private high school systems. We used public and private school attendance as a crude indicator of socioeconomic status in this study as, in Quebec, more than 21% of all high school students attend private school (30% in Montreal, Quebec's most populous city). Additionally, 37.3% of students from the regular programs offered through public schools in 2002–2003 versus 94.2% of the private school attendees from International Baccalaureate (IB) programs, continued to next levels of education (Kamanzi, 2019; Laplante et al., 2020).

Reaching young people virtually in the context and urgency of lockdown during the first wave of the crisis was challenging. After our initial efforts to recruit in Montreal through our personal networks, we extended our recruitment Quebec-wide through a youth organization's social media communication channels. We also approached an Indigenous community where our research chair has existing research collaborations and relationships, sought Band Council approval for the study, and recruited two youth through the community's youth mobilization agent. These approaches yielded limited numbers of private school students. Therefore, we returned again to recruit private school students through our personal networks in Montreal and Joliette (a small city in Quebec). All interested participants were accepted in the study.

In all, we recruited 18 participants attending secondary school between 13 and 18 years of age (11 girls, 7 boys). Five of the youth attended public secondary schools in Montreal (3 girls, 2 boys); eleven attended private secondary school in Montreal, Joliette, or Beauce (a region southeast of Montreal) (7 girls, 4 boys); and two youth were from a public secondary school in an Indigenous community (1 girl, 1 boy). We obtained informed and parental consent from all participants, and each was compensated \$50 for their participation.

We worked with participatory visual methodologies and invited research participants to produce images to identify, represent, and analyze their school and health-related experiences, although participants were not expected to demonstrate the interconnectivity between the two. These approaches seek to value the knowledge, agency, and voice of people by creating space for participants to represent their experience or point of view visually in ways that are concrete, engaging, and easily shared (Mitchell et al., 2017). Making and discussing images together with other participants works towards more democratic forms of knowledge production by rendering data visual and therefore more accessible for shared meaning making. Participatory visual methodologies also provide opportunities for participants to "speak back" to the dominant norms and images in society (Mitchell & de Lange, 2013, p. 1). Participatory visual methodologies are often used to understand issues from the perspectives of groups, such as youth, excluded or overlooked from research and decision-making about issues that concern them. The overall project's three objectives were to explore: (1) how youth were differentially experiencing the government response to the pandemic; (2) youth agency and creativity in coping with the crisis; and (3) youth hopes for the future. This paper addresses the first objective of the project, specifically using educational quality as an indicator for social inequities among youth during the COVID-19 pandemic.

Data collection and analysis

Working with participatory visual methods, photovoice, and "cellphilming" (videos on mobile devices), we invited youth to use everyday technologies (cellphones) to take photos or make short videos about their experiences related to the pandemic (MacEntee et al., 2016; Wang & Burris, 1997). Conducting this study during the first period of lockdown in Spring 2020, we adapted methods typically conducted through in-person workshops by combining synchronous and asynchronous approaches to support virtual youth engagement. We sought to find a balance regarding time commitments from youth, both in asking them to complete research tasks independently at home before and after group sessions and in wanting to limit group sessions to a maximum of 90 minutes each.

We facilitated group sessions with participants in French on Zoom in Spring 2020. Prior to the first meeting, we produced and emailed participants video tutorials to provide stepby-step instructions as well as cellphilm techniques (such as a "no faces" approach) for addressing ethical issues related to confidentiality and anonymity (Thompson et al., 2020a, b). In the first meeting, participants had the opportunity to meet each other and the facilitators, to learn about photovoice and cellphilming, and collectively brainstorm possible topics for their creations. Participants then worked individually over approximately 1 week to produce photos or a cellphilm in response to a prompt: My experiences during the pandemic. During this time, we provided virtual support and technical troubleshooting as needed. The Indigenous participants faced internet restrictions for streaming video and therefore took photos and participated in individual telephone interviews. Following image production, participants gave consent for the use and sharing of their visual creations through a separate Media Release process (distinct from informed consent such that participants could both consent to participating in the research and refuse the use of their visual production for research purposes). In a second session, participants shared and co-analyzed their photos and cellphilms by identifying the themes and areas of concern they saw emerging in the work. This participatory analysis involved a facilitated discussion around the following questions: What themes do you see in the data? What are the similarities and differences? What is missing? What lessons have you learned from the pandemic? What messages might you want to share with decision makers? How was your experience participating in the study?

Through the research process, participants shared their experiences regarding the first wave of the pandemic, including their own experiences regarding social inequities. The photos and cellphilms offered both representations of experience and springboards to critically discuss and reflect on their concerns about these experiences. The material analyzed in this paper yields from the focus group sessions held after participants made their cellphilms. We focus on what youth said about their images or in response to the images (not the images themselves). For this paper, the images offered a catalyst for critical reflection about the systemic implications of the COVID-19 pandemic. All participant names are pseudonyms. Participant quotations were translated from French to English by members of the research team who are fluent in both English and French.

Our data analysis involved several phases informed by a participatory framework: (1) We began with youths' analyses of their experiences as produced in their individual cellphilms and photos, as well as their collective analyses about their visual creations; (2) three researchers watched youths' visual creations and the workshop recordings and then went through the transcripts to identify the broad themes emerging in youths' analyses; (3) one researcher extracted the youths' analyses specific to education and health/well-being; and (4) we organized the findings around the similarities and differences in how youth from public and private schools experienced their education, ability to engage in learning, and well-being.

Results

We have two important findings regarding the experiences of our participants during the first wave of the pandemic: (1) new and deepened social inequities in the education system and their effects on youths' well-being; and (2) the role of inequitable access to resources for learning and well-being. Our results draw attention to the intersection of social inequities in education, housing, well-being, and eventually long-term health for youth from different areas of Quebec. While many of these inequities existed before the pandemic, participants voiced concerns about them deepening due to the pandemic response. Drawing on Weber's lifestyle theory, we found few of our findings were based on youths' behaviours, or life choices, but rather stemmed from differences in material and structural opportunities, based largely, but not solely, on what type of school the youth attended (public or private) and on youths' familial resources.

Navigating new inequities in the education system

There were important and divergent views on the experience of schooling between the public and private school youth during the first wave of the pandemic. The public school students spoke eloquently to the inequities they experienced in their schooling. Many of the private school students were also well aware of the discrepancies experienced in learning between the public and private spheres, despite experiencing less upheaval in their learning during the pandemic as their publicschool peers.

Melanie, a 14-year-old girl from a private school in Montreal, explored the inequities she thought her public school friends experienced:

I remark that injustices were more pronounced lately, for example, I have friends who have not had an efficient and stable school situation to continue their studies. It is as though we pressed on 'pause' for these youth. Me, in contrast, I had the chance to have almost as much of my classes as usual and the majority of them synchronously.

She followed up with another thought about these inequities:

There are some that haven't really had continuity in the learning and others that had lessons on Zoom [....] Well, I think that we should all have the chance to continue to learn and that some don't but it's not their fault, it bothers me [...] Especially friends who go, like, to public school, I think they have a little less school online [...] I feel like although I was lucky ... I feel like I almost learned as much as usual [...] It also makes them (my friends from public school) seem like less motivated in general.

Melanie and others involved in the project were not only aware of the limitations to public school students' learning caused by the government's pandemic response to public school education, but they were also aware that this made public school students seem unmotivated. It is as though the choices that public school students were able to make were interpreted as their being unmotivated, or as signs of their being less able to learn on their own. Public school students were thus bereft of the chance to learn but also seen to be somehow choosing not to learn on their own.

Eighteen-year-old Morris from a remote Indigenous community echoed Melanie's sentiments regarding public school students' motivation:

Zero motivation for, I don't know, zero motivation to finish high school. [...] I am disappointed, we could have had a big graduation party [...] That would be hot, but I have to finish secondary five (the end of high school in Quebec).

Fifteen-year-old Jonathan from a rural area concurred with others from private schools regarding what he saw as the inequities in the education system during the first wave:

After the government's announcement of lockdown, well three days later we had [school] work to do for next week, so [...] The public school was a little later, then you know it was 'learning kits' from the Ministry, so ... you know, it was not really rigorous then it was not followed, then there were teachers who gave (work), teachers who did not give (work), there are teachers who gave (work) then who did not follow the teaching. So, you know, it was a little all over the place. But being in a private school like me, well you have more rigour and you have more... it is more controlled.

Here Jonathan points to the role of choice imposed on public school students. Given that there was little to no formal opportunity to learn through online classes, public school students had to choose to use the learning kits if they wished to continue their education, despite the kits being largely unaccompanied by formal instruction, supervision, or evaluation from teachers. That private school students were immediately offered synchronous online learning, while public school students had no learning opportunities that involved direct interaction with their classmates and teachers until 2 months into the pandemic, was at the root of many of our participants' comments about educational inequities.

Ahmad, a 15-year-old boy studying in a Montreal public high school, cogently criticized the government's response to the pandemic, suggesting that preferential treatment was afforded to students within the private school system. Not only did this mean to Ahmad that his learning experience was less complete than that of his private school peers, but he feared that it would put him at a disadvantage for next steps in the educational system, CEGEP (the French acronym for Quebec's General and Vocational Colleges):

I think that private school should not have been prioritized over public schools at the beginning. We should have all started at the same time. The private schools started with their on-line classes right from the beginning and we, we had nothing ... Like, because they have more resources and money than public schools, they were able to start before us and they had the advantage and I think this will create a big inequity next year in the placement (for CEGEP) because they had time to learn all the necessary materials while we will start off with notions we did not even see this year.

The effect of this inequity in treatment between the two school systems also affected how public school students felt about how they were treated by society. Not only were public school students learning less, but they felt that they were less valorized as citizens.

Monica, a 15-year-old public school student in Montreal, related her disillusion with the treatment of public school students during the pandemic:

Yes, I feel like it is demotivating. It is a bit like they just neglected us. As if they forgot about us. Like, we are all adolescents and it is not just because someone goes to a private school that she deserves more attention.

Monica continues by summing up the situation succinctly, describing how the pandemic simply aggravated the inequities already present in the school system:

I think that the current situation represents what has always existed, but just more accentuated. Like the inequality between public and private schools, like this has always been a problem except that now it is really accentuated. We feel it more. But this has always been a problem, for a long time. It is nothing new. It reflects the society we are in, except things are more accentuated.

Harking back to Weber's lifestyle theory, and particularly to the notions of *Lebensfuhrung* and *Lebenschancen*, many of our participants point to the fact that the government's pandemic response to education for public school students had the potential to diminish their opportunities to improve their lives. Many stressed the long-term effects on their futures of spending protracted periods of time without access to opportunities to learn formal curriculum and benefit from direct, synchronous instructional support from their teachers. Due to government responses, public school students did not have the same education chances as private school students. These inequities differentially affected the choices that youth could make, and many public school students described becoming unmotivated, a critical detriment to young peoples' well-being.

COVID-related inequities in learning-related material resources

Not only were there inequities in the governmental responses to the provision of learning opportunities, but many of the youth shared their thoughts on the inequities they experienced in access to the material resources necessary to be able to learn and study. One of the most immediate issues in the first wave of the pandemic was the inequitable access to tablets, computers, and similar electronic devices necessary to be able to engage in distance learning. While many private schools across Quebec require the purchase of such devices by students beginning high-school education, the public system does not demand such acquisitions. Many students within the public system may not have the financial means to purchase such equipment. Due to this inequity, many of the public school students began the pandemic at a distinct disadvantage as they did not have, nor could they themselves acquire, the equipment necessary to be able to follow online learning at home.

As explained by Eleanore, a public school student in Montreal, private schools were in part able to "get back to work" more quickly after the lockdown due to the ubiquity of tablets among the students:

One of the differences is also that... at the start of quarantine, the management of private schools asked the students if they had access to screens and all that, but it really took a long time in the public schools to ask if they had students who had access to that to be able to take the online courses. And that, it really happened earlier in the private schools and it was not the case in the public schools.

Melanie mused about how other jurisdictions had dealt better with this inherent inequity between the school systems:

I find maybe that all the schools that did not really have a lot of work and online courses, I think that the government could for example give tablets to people who do not have them so that they can keep learning. I think they did that in a few states in the US and I think it might be good here, too.

Monica, from the public school system, reinforces the points of Eleanore and Melanie about the perceived structural obstacles, or lack of chances, for the public school students to be able to pursue their studies due to a lack of computer-related resources, but from a more personal perspective:

I think they still put a lot of stress on us. Like right now we have a lot of work and I think schools don't think about people who don't have the right equipment at home. Like me, I don't have it...

In the Indigenous community, while our two participants did have access to mobile devices, the limited internet access meant that even when there were distance learning possibilities, they were often interrupted due to connection issues. The unreliable internet connection prevented us from communicating with either of the participants via Zoom or any internet platform in a stable way. This was, indeed, the only participating community in this study where we needed to use the telephone in order to discuss with participants. Elliot, a 16-year-old participant from this community, informed us that:

Yeah, [school] is all online, but the math teacher once called us on Zoom [...] Then he explained to us what to do and then all that [...] It's easier, but the internet connection doesn't always work.

The example given by Elliot regarding this remote Indigenous community is an important example of the structured lack of chances that youths in this community had for learning due to inadequate internet connection. This reflects wider infrastructural trends related the digital divide in Canada where rural and remote communities have a lack of access to reliable, high-speed internet connections.

Beyond inequitable access to electronic devices and internet connection, Ahmad shared the difficulties of living in crowded homes in which he now not only lived, but also did all of his "class-room" learning and homework:

Well, I still feel forgotten compared to the equality that we do not really have. Seeing that some people are living well during their quarantine because they have very large houses [...] And I find myself with six people in a small apartment that also made me feel that like there wasn't very much equality between people and like I felt a little like ... I'm here. I try not to complain too much and like there are people, they live in 'mansions' with swimming pools and everything and like they complain about the quarantine.

Echoing the sentiments of Ahmad, several of our private school participants acknowledged how lucky they were to not only have continuous schooling, but the housing and other material conditions permitting them to function well, despite the lockdown and other difficulties associated with the pandemic.

Olive, a 13-year-old girl from a private school in a semirural area, shared her thoughts about her privilege:

I will remember that we did school online for a really long time and it was not the most exciting thing. [...] I think that made us realize.... In any case, for me, it's really fun to live in a big house anyway because we each have our own space and well, we don't have to breathe each other's air all the time [...] We each have our space. I spend my day here, my sister is downstairs, and my brother is in the basement, so we have peace.

Overall the results regarding inequities in the education system, as well as in material resources required to learn, are more indicative of life chances than life choices. If we return to the notion of life chances as including the opportunities individuals have to improve their lives, it is clear that the governmental response to the first wave of the COVID-19 pandemic made it extremely difficult, if not impossible, for many public school students to do this. While the pandemic placed many citizens in a situation where life improvement was made difficult, the near abandonment of schooling for public school students could only deepen the already existing cleavages between these two school systems.

Discussion

Our paper set out to explore the experiences and views of a small group of secondary school youth from different areas of Quebec regarding social inequities in the experience of COVID-19 during the first wave of the pandemic. While the paper does not explore social inequities in *health* per se, it examines the experiences of youth and their education (including the material conditions related to their education) - one of, if not the most important social determinant of health inequities. We know from decades of life-course epidemiological and educational studies that inequities in education shape future life opportunities (Kuh & Ben-Shlomo, 2004; Settersten et al., 2020) and that transition periods, such as those from high school to university, play pivotal roles in determining future education, employment, and health prospects for youth (Kuh & Ben-Shlomo, 2004; Settersten et al., 2020). We took the first wave of the COVID-19 pandemic as a case study of how crises can bring to the fore social inequities for youth living through this critical period of the life-course. It is rare in public health that youth voices are heard on the subject of social inequities. This pilot study thus offers a unique contribution by documenting youths' experiences and perspectives on social inequities during an unprecedented public health crisis.

Framing this study using Max Weber's lifestyle theory permitted an analysis of the tensions between structural/material opportunities (life chances) and behavioural practices (life choices) in explaining life opportunities and potential future health inequities for youth. This distinction stems back to the dichotomy created between material and cultural/behavioural explanations for health inequities explored in the Black Report (Townsend & Davidson, 1982). These distinctions have important ramifications for public health policy and practice. If inequities are due to material differences between groups, then the focus needs to be on improvements to these factors, such as education, income, and housing. If inequities are due to behaviours or practices, then policies need to focus more on what people do and how they behave. Interestingly, even the youth themselves used the vocabulary of chance and choice.

Our discussions with youth brought out three main themes: (1) there were clear differences in early access to education for youth who attended public and private institutions in Quebec during the COVID-19 pandemic; (2) access to the internet and computers offset learning opportunities for students across Quebec throughout the COVID-19 pandemic; and 3) few of the differences experienced during the pandemic were based on youth's behaviours, or life choices, but rather stemmed from differences in material and structural opportunities, based largely, but not solely, on what type of school the youth attended (public or private). In this particular case, the Quebec government was responsible for two decisions impacting the lives of youths. The first of these decisions, the populationbased measure to close all schools, was a common global response to the highly infectious nature of this new virus. The second government decision, the decision by the education minister to not implement synchronous learning opportunities for public school students, but rather to distribute online learning kits for students to use in their own time and at their own discretion, was Quebec-specific.

What is clear from our study is that the turn to (and lack of) distance learning during the lockdown in the first wave of the pandemic happened largely without governmental consideration of the inequities these population-based policies could create (Frohlich & Potvin, 2008). The results of our study point to the role of material differences (life chances) in shaping public school youths' possibilities to continue their studies during the first wave of the pandemic. Not only did the education minister's decision to not provide synchronous learning possibilities to youth in public schools directly affect their ability to learn, but there was a seeming lack of consideration for how the differences in material resources, such as computers, internet connection, and room to work at home, would disadvantage those without. Last, all the participants in our study spoke to the effects that these inequities in educational opportunities were having on the motivation of public school students. Motivation is an important aspect of youths' health and well-being, particularly during this crucial period of the life-course where longer-term decisions are being made scholastically and professionally.

Our first set of results align with the scientific literature regarding the effects of lockdowns on educational inequities experienced by youth during the pandemic (Colao et al., 2020). In a survey conducted in the United States, students in public school were nearly twice as likely as private school students to be concerned about keeping up with their schoolwork (61% vs. 34%) (Common Sense Media, 2020). In addition, students in private school reported more frequent contact with their teachers and more communication related to school in general than their public school peers.

Using the theoretical lens of Weber's lifestyle theory, we emphasize the structural aspect of these inequities. While the youth in our study may have made different choices in order to cope with, respond to, or resist the governmental responses to schooling during the first wave, no youth had chosen not to attend school. The public school participants simply did not have access to the same opportunities as the private school students did to engage in formal learning, although many public school youth shared with us their creative ways of learning new things during lockdown, despite having no school. In this respect, our results underscore the importance of examining the kinds of situations that youth in Quebec experienced as more of a life chance than a choice. Interestingly, several of the youth from private schools were cognizant of these chances given their school's quick turn to distance learning. The COVID-19 pandemic created a unique opportunity to explore this issue of educational inequity, as well as the interdependent process of social inequities in education, health, and well-being for these youth.

Our study also turns the spotlight on the important intersections that should be reinforced between education and health in Quebec's provincial policymaking and academia. While Health in All Policies (HiAPs) have been proposed as an intersectoral approach to addressing the social determinants of health and social inequities in health (de Leeuw, 2015; Hancock, 1985; Kickbusch & Buckett, 2010), questions of health equity are often considered marginal or unattainable (Holt & Frohlich, 2022). HiAP is sometimes referred to as an approach to public policies across sectors that systematically takes into account the health implications of decisions, seeks synergies, and avoids harmful health impacts in order to improve population health and health equity (WHO, 1986). It also generally involves a centralized and systematic approach to considering the health effects of (all government) policies using health impact assessments or similar arrangements. When the Education Minister decided not to provide any formal teaching to public school high school students during the first wave of the pandemic (from March to June 2020), evaluations should have been undertaken to determine what the well-being and health effects would be on this significant proportion of the population. Had this been done, at a minimum, a decision to more quickly provide asynchronous teaching to public school students might have been concluded.

Finally, a small caveat to our study was that our participants over-represented private school attendees compared to those from public schools. It is well known that socially advantaged people are more prone, however, to respond to research opportunities, so the over-representation of more privileged participants is not entirely surprising (Galea & Tracy, 2007; Robinson et al., 2016). Given the pilot nature of this study, and our qualitative and engaged approach to youth engagement in research, we were not seeking generalizability. Rather, we sought the opportunity to explore—with youth—the distinction between the experiences of private versus public school students.

While moments of crisis, such as the first wave of the COVID-19 pandemic, may not be the most opportune moments for health impact assessments, it is important to consider that governmental decisions regarding critical social determinants of health, such as education, must systematically take into account the inequitable impacts they may have on youth health and well-being. When such dramatic decisions were made about educational opportunities for youth across the province of Quebec in the spring of 2020, stronger considerations should have been made about potential long-term inequitable effects on their health and well-being as well. Our findings suggest that the COVID-19 pandemic crisis further exposes the gaps between policy and implementation. The decision to launch such an extraordinary population-level intervention, such as a lockdown, while entirely supported by infectious disease science, neglected the complexity of how social determinants of health such as education and health inequities interact.

Contributions to knowledge

What does this study add to existing knowledge?

- This exploratory pilot study documents the experiences and perspectives of 18 youth attending public and private secondary schools in different areas of Quebec during the first wave of the COVID-19 pandemic.
- Youth experienced social inequities regarding access to education as a result of population-level government lockdown measures that closed all secondary schools in March 2020.
- Public secondary school students experienced new and deepened social inequities in the education system and had inequitable access to resources such as housing, internet, and learning materials in order to deal with government lockdown measures.
- Youth perspectives offer critical insight about social inequities in education and resources necessary to learn overlooked by government responses during the first wave of COVID-19.

What are the key implications for public health interventions, practice, or policy?

- This study reinforces the importance of education as a social determinant of health.
- Public health policies, practice, and interventions need to take social inequities in education into account in order to address social inequities in health.
- The differentiation between life chances and life choices within public health practice offers an important way to understand the structural factors influencing social inequities in health.
- Intersectoral approaches to collaboration, such as Health in All Policies, are needed for more concerted consideration of the short- and long-term impacts of interventions affecting youths' education on future social inequities in health.
- Quebec's provincial policymaking needs to maintain an explicit focus on the complexity of the interaction between social determinants of health, such as education, and health inequities.

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Availability of data and material The focus group data contain identifying information about individual participants and remain confidential as per participants' expressed wishes as well as due to the age of the research participants.

Code availability Not applicable

Author contributions All authors whose names appear on the submission made substantial contributions to the conception or design of the work, to the acquisition, analysis, or interpretation of data or to the development or revision of the work for important intellectual content.

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Declarations

Ethics approval All procedures performed involving human participants were in accordance with the ethical standards of the University of Montreal's institutional research committee (Comité d'éthique de la recherche en sciences et en santé, Certificate #CERSES-20-063-D) and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards. The study was also approved by the Wemotaci Band Council according to Indigenous community ethical principles.

Consent to participate Informed consent was obtained from all research participants, including parental/guardian consent for research participants under the age of 18 years old. Additional informed consent was obtained from all individual participants for whom identifying information is included in this article.

Consent for publication Informed consent for publication of personal data was obtained from all research participants, including parental/guardian consent for research participants under the age of 18 years old.

Conflict of interest The authors declare no competing interests.

References

- Alexander, S. A., & Shareck, M. (2021). Widening the gap? Unintended consequences of health promotion measures for young people during COVID-19 lockdown. *Health Promotion International*, 1–13. https://doi.org/10.1093/heapro/daab015
- Bambra, C., Riordan, R., Ford, J., & Matthews, F. (2020). The COVID-19 pandemic and health inequalities. *Journal of Epidemiology & Community Health*, 74(11), 964–968 https://jech.bmj.com/content/ 74/11/964.
- Barrett, S. E. (2021). Maintaining equitable and inclusive classroom communities online during the COVID-19 pandemic. *Journal of Teaching and Learning*, 15(2), 102–116. https://doi.org/10.22329/ jtl.v15i2.6683
- Brown, N., te Riele, K., Shelley, B. & Woodroffe, J. (2020). Learning at home during COVID-19: Effects on vulnerable young Australians. Independent rapid response report. Peter Underwood Centre for Educational Attainment, University of Tasmania. https:// www.utas.edu.au/__data/assets/pdf_file/0008/1324268/Learningat-home-during-COVID-19-updated.pdf
- Carde, E. (2020, 27 Avril). Les inégalités face au coronavirus. Le Devoir. https://www.ledevoir.com/opinion/idees/577749/les-inegalitesface-au-coronavirus
- Cockerham, W. C., Rutten, A., & Abel, T. (1997). Conceptualizing contemporary health lifestyles: Moving beyond Weber. *The Sociological Quarterly*, 38, 321–342.
- Colao, A., Pisceitelli, P., Pulimeno, M., Colazzo, S., Miani, A., & Giannini, S. (2020). Rethinking the role of the school after COVID-19. *The Lancet Public Health*, 5(7), e370. https://doi.org/ 10.1016/S2468-2667(20)30124-9
- Common Sense Media. (2020). Common Sense Media | SurveyMonkey Poll: How teens are coping and connecting in the time of Coronavirus. https://www.commonsensemedia.org/sites/default/ files/uploads/pdfs/2020_surveymonkey-key-findings-toplinesteens-and-coronavirus.pdf
- de Leeuw, E. (2015). Intersectoral action, policy and governance in European healthy cities. *Public Health Panorama*, 1(2), 175–182.
- Dupéré, V., Archambault, I., & Tardif-Grenier, K. (2020, May 7). Interruptions scolaires: Que nous disent les études sur le 'recul estival' et que peut-on en déduire dans le contexte de l'interruption liée aux mesures sanitaires? Réseau Réussite Montréal. https://www. reseaureussitemontreal.ca/dossiers-thematiques/covid-19-etreussite-educative/la-perte-des-acquis-pendant-les-interruptionsscolaires/
- Ellis, W. E., Dumas, T. M., & Forbes, L. M. (2020). Physically isolated but socially connected: Psychological adjustment and stress among adolescents during the initial COVID-19 crisis. *Canadian Journal of Behavioural Science*, 52(3), 177–187. https://doi.org/10.1037/ cbs0000215

- Frenk, J., Bobadilla, J.-L., Stem, C., Frejka, T., & Lazano, R. (1994). Elements for a theory of the health transition. In L. C. Chen, A. Kleinman, & N. C. Ware (Eds.), *Health and social change in international perspective* (pp. 25–49). Harvard University Press.
- Frohlich, K. L., & Potvin, L. (2008). The inequality paradox: The population approach and vulnerable populations. *American Journal of Public Health*, 98(2), 216–221. https://doi.org/10.2105/AJPH. 2007.114777
- Frohlich, K. L., Corin, E., & Potvin, L. (2001). A theoretical proposal for the relationship between context and disease. *Sociology of Health & Illness*, 23(6), 776–797. https://doi.org/10.1111/1467-9566.00275
- Galea, S., & Tracy, M. (2007). Participation rates in epidemiologic studies. Annals of Epidemiology, 17(9), 643–653.
- Hancock, T. (1985). Beyond health care: from public health policy to healthy public policy. *Canadian Journal of Public Health*, 76(Suppl 1), 9–11.
- Holt, D., & Frohlich, K. L. (2022). Moving beyond Health in All Policies: Exploring how policy could front and centre the reduction of social inequities in health. In P. Fafard, A. Cassola, & E. de Leeuw (Eds.), *Integrating science and politics for public health, Palgrave Studies in Public Health Policy Research.* Palgrave Macmillan. https://doi. org/10.1007/978-3-030-98985-9 12
- Horton, R. (2020). Offline: COVID-19 is not a pandemic. *The Lancet*, 396(10255), 874. https://doi.org/10.1016/S0140-6736(20)32000-6
- Hurteau, P., & Duclos, A.-M. (2017). *Inégalité scolaire : le Québec dernier de classe*? Institut de recherche et d'informations socioéconomiques.
- Kamanzi, P. C. (2019). School market in Quebec and the reproduction of social inequalities in higher education. *Social Inclusion*, 7(1), 18– 27. https://doi.org/10.17645/si.v7i1.1613
- Kickbusch, I., & Buckett, K. (2010). Implementing health in all policies: Adelaide 2010. Government of South Australia.
- Kuh, D., & Ben-Shlomo, Y. (2004). A life course approach to chronic disease epidemiology. Oxford University Press.
- Laplante, B., Doray, P., Tremblay, É., Kamanzi, P. C., Pilote, A., & Lafontaine, O. (2020). L'accès à l'enseignement postsecondaire: l'effet de la segmentation scolaire au Québec. Chaire-réseau de recherche sur la jeunesse du Québec.
- Laughland, O. (2020, April 12). 'A perfect storm': poverty and race add to Covid-19 toll in US deep south. The Guardian. https:// www.theguardian.com/us-news/2020/apr/12/coronavirus-us-deepsouth-poverty-race-perfect-storm
- MacEntee, K., Burkholder, C., & Schwab-Cartas, J. (Eds.). (2016). What's a cellphilm? Integrating mobile technology into participatory visual research and activism. Sense.
- Macintyre, S. (1997). The Black Report and beyond: What are the issues? Social Science and Medicine, 44, 723–745. https://doi.org/10.1016/ S0277-9536(96)00183-9
- Mitchell, C., & de Lange, N. (2013). What can a teacher do with a cellphone? Using participatory visual research to speak back in addressing HIV & AIDS. *South African Journal of Education*, 33(4), 1–13 http://www.scielo.org.za/pdf/saje/v33n4/10.pdf.
- Mitchell, C., de Lange, N., & Moletsane, R. (2017). Participatory visual methodologies: Social change, community, and policy. SAGE.
- OECD. (2020). Private schools and school choice. In PISA 2018 Results (Volume V): Effective Policies, Successful Schools. OECD Publishing. https://doi.org/10.1787/14bbef20-en
- Pieh, C., Budimir, S., & Probst, T. (2020). The effect of age, gender, income, work, and physical activity on mental health during coronavirus disease (COVID-19) lockdown in Austria. *Journal of Psychosomatic Research*, 136, 110186. https://doi.org/10.1016/j. jpsychores.2020.110186
- Robinson, L., Adair, P., Coffey, M., Harris, R., & Burnside, G. (2016). Identifying the participant characteristics that predict recruitment

and retention of participants to randomised controlled trials involving children: A systematic review. *Trials*, 17(1), 294.

- Russo, K., Soares, R., Magnan, M.-O., & Borri-Anadon, C. (2020). Droit à la santé ou droit à l'éducation? Inégalités en éducation pendant la première vague de la Covid-19 au Québec. Québec. Chaire-réseau de recherche sur la jeunesse du Québec (CRJ).
- Settersten, R. A., Bernardi, L., Härkönen, J., Antonucci, T. C., Dykstra, P. A., Heckhausen, J., Kuh, D., Mayer, K. U., Moen, P., Mortimer, J. T., Mulder, C. H., Smeeding, T. M., van der Lippe, T., Hagestad, G. O., Kohli, M., Levy, R., Schoon, I., & Thomson, E. (2020). Understanding the effects of Covid-19 through a life course lens. Advances in Life Course Research, 45(100360). https://doi.org/10. 1016/j.alcr.2020.100360
- Thompson, J., Fraser, S. L., Macabena Perez, R., Paquette, C., & Frohlich, K. L. (2020a). Girls and young women negotiate wellbeing during the COVID-19 pandemic. *Girlhood Studies: An Interdisciplinary Journal*, 13(3), 48–63. https://doi.org/10.3167/ghs.2020.130305
- Thompson, J., Macabena Perez, R., Paquette, C., Levitt, B., Holland, N. (2020b). How to make a cellphilm [Video, 15 mins]. Montreal: Myriagone Chaire McConnell-UdeM en mobilisation des connaissances jeunesse. https://www.youtube.com/ playlist?list=PL0t7A9ItFghOPkGEPhEvLUYb13kpIJc_F
- Thompson, J., Fraser, S., Archambault, I., Beauregard, N., Dupéré, V., & Frohlich, K. (2021). Schooling, interrupted: A critical account of motivation and education during the COVID-19 pandemic in Quebec. *Journal of Teaching and Learning*, 15(2), 60–80. https:// doi.org/10.22329/jtl.v15i2.6722
- Townsend, P., & Davidson, N. (Eds.). (1982). *Inequalities in health: Black report, pelican series.* Penguin Books.
- United Nations Inter-Agency Network on Youth Development. (2020, April 23). Statement on COVID-19 and youth. https://www.un. org/development/desa/youth/wp-content/uploads/sites/21/2020/04/ IAYND-Statement-COVID19-Youth.pdf
- Van den Broucke, S. (2020). Why health promotion matters to the COVID-19 pandemic, and vice-versa. *Health Promotion International*, 35(2), 181–186. https://doi.org/10.1093/heapro/daaa042
- Viner, R. M., Ross, D., Hardy, R., Kuh, D., Power, C., Johnson, A., Wellings, K., McCambridge, J., Cole, T. J., Kelly, Y., & Batty, G. D. (2015). Life course epidemiology: Recognising the importance of adolescence. *Journal of Epidemiology and Community Health*, 69(8), 719–720. https://doi.org/10.1136/jech-2014-205300
- Wang, C., & Burris, M. A. (1997). Photovoice: Concept, methodology, and use for participatory needs assessment. *Health Education & Behavior*, 24(3), 369. https://doi.org/10.1177/ 109019819702400309
- Weber, M. (1922). Wirtschaft und Gesellschaft (Economy and Society). Mohr.
- WHO. (2008). Closing the gap in a generation: Health equity through action on the social determinants of health. Commission on Social Determinants of Health Final Report. https://www.who.int/publications/i/item/WHO-IER-CSDH-08.1
- WHO, Canadian Public Health Association, & Health Canada. (1986). The Ottawa charter for health promotion. Health Promotion, 1, i - v. Retrieved from http://www.who.int/healthpromotion/conferences/ previous/ottawa/en/

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