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Research Article

Queering Public Health: A Critical Examination of Healthcare Access and Gender Expression among Trans, Nonbinary, and Other Gender Nonconforming People during COVID-19

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Research documenting the impact of COVID-19 on Two-Spirit, lesbian, gay, bisexual, transgender, and queer (2SLGBTQ+) populations in Canada is limited. Our objectives were to investigate the impact of COVID-19 lockdown measures on the lives of trans, nonbinary, and other gender nonconforming (TGNC) people. Engage COVID-19 is a mixed methods study examining the impact of COVID-19 on gay, bisexual, queer, and other men who have sex with men (GBQM) living in Vancouver, Toronto, and Montreal, Canada. Using purposive sampling, we conducted in-depth qualitative interviews (between November 2020–February 2021 and June–October 2021) with 93 participants who discussed the impact of COVID-19 on their lives. Seventeen participants were identified as TGNC. TGNC participants reported barriers to trans healthcare during the initial months of the COVID-19 pandemic. Several participants indicated that some public health interventions during COVID-19 (i.e., lockdowns) eased the pressure to "perform" gender due to fewer in-person interactions. During lockdowns, TGNC participants increasingly cultivated community networks online. Nevertheless, participants reported longing for the social support that was available to them during pre-COVID. Lack of access to community spaces during lockdowns had a negative impact on participants' mental health, despite reduced pressure to perform gender and opportunities for social engagement in online spaces.

1. Introduction

Many trans, nonbinary, and other gender nonconforming (TGNC) people (while we employ "TGNC" as a shorthand unit of analysis to describe the experiences of people who do not identify as cisgender, we recognize that trans, nonbinary, gender nonconforming, and other gender diverse people are not a monolith and that this category comprises multiple communities and people) face significant health disparities, including poor mental health, as well as barriers to medical care, such as transphobic stigma and lack of trans-specific medical expertise among care providers[1–4]. These barriers still exist for TGNC people who are linked with a primary care provider as many TGNC people are uncomfortable talking to their doctor about trans-specific health issues [5]. Coverage for trans healthcare in Canada varies widely by province [6], with some jurisdictions absorbing the costs of hormone replacement therapy and gender-affirming surgeries.

Recent research suggests that more individuals are coming out as trans in the United States and the United Kingdom [7, 8]. Estimates in the 2016 Canadian

Census suggested that there were 200,000 trans adults in Canada [9]. However, in 2021, the Canadian census asked about gender and assigned sex at birth, where 100,815 people marked their gender as different than what they were assigned at birth [10]. The census data allows a glimpse into the number of trans people in Canada, but is not conclusive as some trans people are hesitant to identify themselves to the government due to histories of colonialism and violence from the government [11]. While researchers have taken steps to examine the impact of COVID-19 on Two-Spirit, lesbian, gay, bisexual, transgender, and queer (2SLGBTQ+) populations in Canada [12–15], there is limited information focusing on the specific impacts among TGNC communities.

COVID-19 lockdowns fundamentally changed the way people interacted with each other. The implementation of stay-at-home orders, physical distancing guidelines, and self-isolation mandates meant that individuals were not subject to the same forms of social surveillance in their everyday lives [16]. However, the increasing use of virtual platforms invited new forms of both gender policing and community-building into people's lives. Our objective was to investigate the impact of lockdown measures on the lives of TGNC participants during the first three waves of COVID-19 in Canada, which included the period from January 2020 to August 2021 [17–19], specifically the direct and indirect impacts of COVID-19 prevention measures on their physical and mental health.

We recognize that traditional approaches in social sciences rely on the organization of data in discrete and often binary categories [20, 21]. In our analysis, we have attempted to grapple with the complexities and shifting conditions of our participants' lives by centering the individual narratives of participants, where possible. The data that follow are not intended to reify these seemingly fixed categories (e.g., cisgender/trans and gay/straight). At the same time, we recognize the significance of quantitatively measuring identities as a political strategy to maintain the visibility of underserved communities [22]. We provide the data below as descriptors that point to the uneven impacts of the COVID-19 pandemic, as well as an acknowledgment of participants' articulations of their identities and social locations.

1.1. Theoretical Framework. Queer theory emerged in the 1990s and has moved beyond literary studies and gay and lesbian studies [23–26], finding currency in fields like health sciences [27–29], political science [30], law [31, 32], and economics [33, 34]. As a theoretical framework, queer theory is not just concerned with sexual identities and practices; it is an analytical lens that challenges traditional beliefs about how we organize human life. Put differently, queer theory asks questions about how we come to define human phenomena as normative. Queer theory also offers an analysis of how power functions in a society [35]. Queer theory's key tenets include a rejection of unchanging and impermeable categories and a refusal of dualisms [36]. Nash [37] has argued that the lives of TGNC individuals are often shaped by institutional environments that uphold cisheteronormative values. Even within queer spaces, TGNC people are often conditionally accepted or ostracized if they do not adhere to binaristic and legible gendered performances (i.e., masculine/feminine).

According to Michel Foucault, one of the queer theory's most notable thinkers, discursive shifts in the field of medicine at the close of the 18th century resulted in a focus on "normality" rather than health [35, 38]. Here, we used the queer theory as a framework that questions normative approaches to gender, sexuality, and health [23, 35, 38, 39]. In doing so, we sought to understand the implications of COVID-19 public health interventions that imagine citizens as fixed, already knowable subjects. Verweij and Dawson [40] have argued that the "public" in "public health" refers to a collective, a population, and or a society. As researchers have noted, the lives and needs of marginalized populations (including 2SLGBTQ+ communities, racialized communities, people living with disabilities, and migrants) were not accounted for during the initial response to COVID-19 in Canada [41–43]. Building on this work, we employed a queer theoretical lens to highlight how the imagined "public" in public health is presumed to be cisgender and heterosexual.

2. Method

2.1. Research Design. The data presented are derived from the larger mixed methods Engage COVID-19 Study, which examines the impacts of the COVID-19 pandemic on the social and sexual lives of gay, bisexual, queer, and other men who have sex with men (GBQM) living in Montreal, Toronto, and Vancouver, Canada. Engage COVID-19 was launched in September 2020 and is part of an ongoing multicity cohort study examining HIV, sexually transmitted blood-borne infections (STBBI), and the sexual health of GBQM in Canada [44–46]. As part of the Engage COVID-19 Study, we conducted 93 in-depth qualitative interviews, in two rounds, with GBQM living in Montreal ($n = 30$), Toronto ($n = 33$), and Vancouver ($n = 30$). The first round of interviews ($n = 42$) was conducted between November 2020 and February 2021. The second round of interviews ($n = 51$) took place between June 2021 and October 2021 with different participants from the same cohort study.

2.2. Recruitment. In terms of gender, participants identified as either cisgender, trans, genderqueer, and/or Two-Spirit at the point of enrollment in the cohort study. To enroll in the study, participants must have identified as a "man." Some participants have, over time, reported changes in their gender. Our current study, however, does not include the experiences of participants who identified as cisgender at the point of enrollment, but now identify as trans women. Sociodemographic data for participants are updated during cyclical site visits and/or during the completion of study modules to reflect these changes. Purposive sampling was used to capture the diverse experiences of GBQM during the COVID-19 pandemic [47]. We sought to recruit participants along the following four key categories: age, ethno-racial

background, gender identity, and HIV status (see Table 1). We established a sample where at least 10% of participants identified as trans men; there were no specific targets set for nonbinary and gender nonconforming participants. Research ethics approval was provided by the research ethics boards of the University of Toronto, Toronto Metropolitan (formerly Ryerson) University, The University of Windsor, The McGill University Health Centre Research Institute, The University of British Columbia, The University of Victoria, and Simon Fraser University.

2.3. Data Collection. Interviews were conducted virtually using MS Teams [48]. Interviews in Montreal were conducted in English or French, based on the preferences of the interviewee. Interviews in Toronto and Vancouver were conducted in English only. Participants were given time to review the consent form, and consent was provided before interviews were conducted. Interviews lasted an average of 86 minutes and were digitally recorded using a recording device and/or through the MS Teams platform. Participants received a $50 CAD honorarium.

The interview guide had the following seven key domains: (1) introductions, sociodemographics, and rapport building; (2) experiences and risk factors for COVID-19, including understanding and uptake of public health and community COVID-19 messaging; (3) effects of the COVID-19 pandemic on finances, work, and everyday life; (4) access to health services during COVID-19; (5) sexual health and sexual decision-making; (6) psychological impacts, mental health, and substance use patterns; (7) additional issues of concern and closing reflections.

2.4. Data Analysis. The interviewers in each city were cisgender men. Data from the interviews were transcribed verbatim, and transcripts were subsequently reviewed for accuracy by the interviewers. Discrepancies were resolved by comparing transcripts to the original audio recording. Transcripts were imported into QSR NVivo 12 software and coded using constructivist grounded theory (CGT). Data analysis also included the perspectives of TGNC members on the research team. CGT focuses on experience as mediated by social contexts, attentive to the deployment of language, and requires reflexivity during the research process [49, 50]. CGT also positions the participant as a collaborator in knowledge production [51]. The idea for this paper was prompted by an interviewer's exchange with a participant who expressed concern about the extent to which their experiences would be captured under the category "GBQM." As a Black queer researcher, the interviewer (and lead author of this paper) was sensitive to how the experiences of multiply marginalized participants can be obscured by "GBQM" as a category (i.e., read as white, cisgender, and middle-class) and advocated for further examination of TGNC participants' experiences. With support from TGNC researchers on the team, we moved forward with the present analysis. TGNC researchers on our team provided important feedback on the theoretical framing of our study, including language regarding how TGNC participants are framed in relation to 2SLGBTQ+ communities. We arrived at "TGNC" as a category following discussions about the specificity of experience and concerns about the erasure of identity. TGNC members of the team also enhanced our discussion by alerting us to some of the broader challenges TGNC people when accessing care (e.g., barriers to gender-affirming surgery and drug shortages). Although the Engage study is focused on the experiences of GBQM, we do not employ this language in our analysis in acknowledgment of the fact that many of our participants do not identify as "men." Our use of "GBQM" as a category above, however, is meant to provide context for our study (i.e., study design and participant pool) and the analysis provided in this paper.

Table 1: Characteristics of participants ($N = 17$).

	Overall ($N = 17$) n (%)
Age in years	
<25	4 (23.5)
25–30	4 (23.5)
31+	9 (53.0)
Ethno-racial background	
East Asian	2 (11.8)
Mixed race/ethnicity	5 (29.4)
South Asian	1 (5.9)
White	9 (52.9)
Gender identity	
Genderqueer	4 (23.5)
Nonbinary	6 (35.3)
Trans	7 (41.2)
Sexual identity	
Bisexual	3 (17.6)
Gay	3 (17.6)
Pansexual	1 (5.9)
Queer	10 (58.8)
Living situation	
Lives alone	6 (35.3)
Lives with other people	11 (64.7)

Transcripts were reviewed and coded in consultation with interviewers in each city. Initial high-level codes were created to organize data from the interviews and provide coherency to our analysis (e.g., accessing health services, communities, and social life). Codes were then refined to help us understand the specific experiences of TGNC participants in our study. Our analysis was also supported by the contributions of TGNC members on the research team. Pseudonyms were created for participants as part of our analysis to highlight and contextualize the nuances of participants' experiences during COVID-19, as well as the multiple and compounding challenges they faced during the COVID-19 pandemic. These pseudonyms also protect participants' identities.

3. Results

3.1. Sample Characteristics. Table 1 details sample characteristics. The analytic sample included 17 participants who identified as TGNC. Ages ranged from 21 to 76 years. Approximately fifty percent of participants were 30 years of age

or under at the time of the interview. The average age of this sample was 34 years. Vancouver had the highest number of TGNC participants ($n = 7$). Montreal and Toronto had five TGNC participants each. Most individuals identified as white ($n = 9$) and trans (we use the term "trans" to include participants' description of themselves as "trans male," "trans man," and "transmasculine") ($n = 7$).

We identified three salient themes based on TGNC participants' discussions of gender identity, service access, and community support during COVID-19. These interrelated themes captured various changes in participants' access to gender-affirming health services and support systems during the pandemic. These tensions included (1) barriers to gender-affirming health services during COVID-19, which described disruptions in the provision of gender-affirming care, (2) shifting expressions of trans and non-binary identities during COVID-19 lockdowns, and (3) defining identity through community relationships. The latter highlighted some of the challenges faced by TGNC participants who were cut off from their support networks during COVID-19 and their employment of social media platforms to share resources about gender identity. Mental health was a consistent motif across all three themes.

3.2. Barriers to Gender-Affirming Health Services during COVID-19. Participants experienced multiple disruptions to gender-affirming care during the first three waves of COVID-19 in Canada [18]. COVID-19 lockdowns and travel restrictions affected the supply chain for medications nationwide [52, 53]. For our participants, this impacted their ability to access hormone therapy. An increase in COVID-19 cases, and the subsequent redistribution of resources in healthcare institutions like hospitals and clinics, caused delays for participants awaiting gender-affirming surgery. For several participants, the postponement of gender-affirming care posed significant challenges to their mental health. Participants also reflected on their past experiences with public health institutions and healthcare providers (HCPs), with some noting that their experiences have often been antagonistic or fraught with discomfort.

3.3. Hormone Replacement Therapy Disruptions. Participants described challenges starting and continuing hormone replacement therapy (HRT) during COVID-19. Limited access to HCPs and drug shortages negatively impacted TGNC participants' ability to proceed with HRT during lockdowns as reported as follows:

> [M]y doctor changed several times. I got you know, once I figured out what a lot of my needs were, I started seeking a doctor who I felt confident would prescribe me hormone therapy that I wanted. But she was reassigned during COVID. (Alex, 30s, non-binary, Toronto).

> I used to have a regular [HRT] appointment for upkeep, I guess [laughs], like, because I don't like giving myself shots [of testosterone], they would give me a shot so I would do that every couple of weeks, which stopped pretty early on. Like, I think I went once or maybe twice after the pandemic started, and then I just had to do it at home- . . .giving myself shots, I really have a problem with it. So, it kind of fucks up my schedule because often, like, I have–I really have to work myself up to it. (Casey, 40s, trans, Toronto).

> There was actually a shortage of my testosterone kind of a few months ago at the beginning of all this and I, I guess I missed one shot before I could get my medication. But I knew a lot of guys talking on some of the [online platforms] and stuff like that, a lot of guys were having trouble finding their normal medication. So, like I had switched to a different formulation and some other guys had to go back and forth and it seems to be OK now, but that was one concern. (Sam, 30s, trans, Vancouver).

TGNC participants not only experienced challenges accessing testosterone for HRT, but they also faced challenges accessing HCPs who could prescribe and/or administer treatment. COVID-19 lockdowns and drug shortages created conditions where participants had to change their medications and self-administer treatment via self-injection, all without the support of a HCP.

3.4. Gender-Affirming Surgeries. Disruptions to health services also included gender-affirming surgeries. Owing to increased demands on the Canadian healthcare system during the COVID-19 pandemic [54], thousands of surgeries deemed elective were postponed to prioritize patients suffering from COVID-19 symptoms. Gender-affirming surgeries were included in the list of "nonessential surgeries" [55], 4). Although they were deemed elective, participants whose surgeries were delayed by COVID-19 perceived them as important and urgent.

> I got top surgery this year. . .the surgery was supposed to happen a few months earlier, but because of the pandemic, it got pushed back with all the rest of the like, elective surgeries, I think they called them. (Jordan, 20s, trans, Toronto).

> COVID-19 has thrown a wrench into the gender affirmation surgeries I've been having and so, on my mental health and physical health. This is taking a lot longer than it should. So that's kind of my thing, it's like–it's [COVID-19] affecting the general health of our population, which is affecting surgeries and things moving along as they should. . .It's really, really frustrating. . . they were going to do the first surgery last March [2020]. And then it didn't happen. . . my big worry is that, because the medical system and COVID have slowed everything down, I might get sent back to work before my surgeries are done, which would just–I feel like throw another wrench into my mental health. (Lennox, 30s, trans, Vancouver).

For Lennox, ongoing delays in surgery have caused significant impacts on his mental health. He went on to share

his concerns regarding how health services for trans people were not prioritized and considered elective during COVID-19.

> [C]ould you imagine telling a cisgendered man that he can't have erections, because they're just waiting. Like, they would not do that. The sexual health of that would get bumped pretty quickly to the front of the line. Like, I don't know it's just–the double standards of, yeah, they're bizarre. (Lennox).

3.5. Past Experiences with Trans Healthcare in Canada. Other participants shared some of the challenges they had faced navigating the public health system in Canada, specifically as it relates to trans healthcare. Previous experiences of transphobia from HCPs negatively affected how participants perceived healthcare in Canada. TGNC people pose a challenge to the everyday operations of health and social services in Canada. Intake processes (i.e., filling out forms and ID verification) serve to distill patients' identities, histories, and bodies into discrete, easily digestible data. The lives of TGNC people run counter to this model that has been upheld in part by cisheteronormativity. Inconsistencies in identification documents, for example, create significant barriers for those who are seeking care as detailed by participants as follows:

> [E]very interaction with the medical system is . . . like, somehow becomes an issue because I'm trans basically [laughs]. . .I've had to go to the emergency room a lot of times for my allergies, and that's always, you know, you always–it's just always an issue with, like, especially before ID is all changed over and what not and misgendering and, like, the way that they treat you, the places they send you, the–yeah, just there's so many factors. And then, accessing treatment in the first place is a whole fucking nightmare (Casey, 40s, trans, Toronto).

> I think, with my friends, mostly–like, other queer trans–and just as a comparison is, you know, us accessing health care sometimes can be concerning, because even if it's these COVID vaccines back then, you know, I made sure to go with my friends. And just sometimes it's like health cards matching, information, they're much better. I'll give them that credit as it's due. I think that all the doctors' offices now have tried their best to be inclusive of queer and trans people, for sure. But there's always that underlying concern. (Taylor, 20s, trans, Toronto).

Although individuals in our sample noted some challenges in accessing trans healthcare during COVID-19, some participants acknowledged that HCPs took steps to improve the provision of care for their TGNC patients. Taylor also expressed excitement about securing a job during COVID-19 that includes HRT as part of the health benefits package.

> I just got my hormones covered for the first time. I've been on hormones for nine and a half years. So, this is, like, my very first time not paying out of pocket. And the company's so inclusive that it actually says, transgender hormone replacement therapy covered. (Taylor).

For many participants, COVID-19 exacerbated many of the challenges they were already facing when seeking care (i.e., transphobia, drug shortages, and surgery delays). In some cases, the pandemic worsened participants' perceptions of public health institutions. Our participants also conveyed the significant and ongoing impacts of these disruptions on their everyday lives.

3.6. Shifting Expressions of Trans and Nonbinary Identities. For TGNC participants in our study, taking HRT is one of several practices employed to affirm their gender identity. For example, Alex had just started making connections in the trans community when the first COVID-19 lockdown was implemented in March 2020. Although they experienced some difficulties securing a HCP who would prescribe HRT during COVID-19, Alex found the pandemic an opportunity to explore their femininity in other ways.

> I know that a dress doesn't make you a girl, but allowing myself to like, because like I do consider myself a girl in a halfway you know. But you know, doing feminine activities, "feminine activities" to alleviate stress and dysphoria has been something that I have engaged in more during the pandemic. . .lots of people have used this time where you're just like inside all day anyways so, why not wear a dress or a binder and like, feel good about yourself when you're at home in this space? So, I have been doing that. (Alex, 30s, non-binary, Toronto).

Alex noted that the proliferation of hate against marginalized groups during COVID-19 has affected their decision to come out at work, and so they felt safest to only express their femininity while not working on weekends. Whereas Alex selectively expressed their gender in safe settings, Bailey discontinued the use of testosterone during COVID-19 lockdowns in Quebec.

> To be honest, if I didn't see my endocrinologist, I would not really care because I stopped taking testosterone during the lockdown, because I don't feel the need to take it if I'm not seeing people. You know, I took it before, mostly to make other people comfortable, so at this point, you know, I don't take testosterone since March [2020] basically, and by choice. (Bailey, 20s, trans, Montreal).

Bailey went on to share some of the reasons why he stopped taking testosterone, noting that he felt pressured to maintain a palatable image of masculinity when navigating public spaces prepandemic:

> I stopped taking testosterone during the lockdown, because I don't feel the need to take it if I'm not seeing people. You know, I took it before, mostly to make other people comfortable, so at this point, you know, I don't

take testosterone since March basically, and by choice. . .I mean, for me, the goals for myself to take testosterone was to deepen my voice a bit and then to stop my period. And then, when my period stopped and my voice got a bit deeper, I was pretty much satisfied. And then, I sort of kept it up just because I was interacting with the public every day and I didn't want to be misgendered. But at this point, everything is online, it doesn't really change my life.

The narrative accounts of our participants indicate that some TGNC individuals not only experienced challenges in accessing gender-affirming health services, but they were also conscious of how their bodies and images were regulated in public spaces (e.g., the workplace, school, and bars). TGNC people were aware of how their bodies are perceived and judged in different social environments and took conscious steps to mitigate the pressures of gender performance in their personal lives. The implementation of COVID-19 lockdowns during the first two waves in Canada eased the pressure to adhere to transnormative gender expressions for several participants. As the accounts above elucidate, participants' concerns about gender policing had a negative impact on their mental health, including their self-confidence, stress levels, and sense of safety.

3.7. Defining Identity through Community Relationships. COVID-19 lockdowns in Canada, particularly during the first few months of the pandemic, largely prohibited participants from having in-person gatherings with individuals who lived outside their homes. These restrictions created a sense of unease among some participants who felt that their families of origin could not provide the kinds of support or understanding that they needed. For some participants, online platforms provided an outlet to connect with other members of the TGNC communities.

3.8. Loss of Queer Spaces. Restrictions to the social gathering during lockdowns led to feelings of isolation among many participants. As Bailey and Lennox note below, having opportunities to connect with friends who understand and affirm their identities and experiences is important for their overall well-being.

[B]eing a queer trans person in an all cis[gender] and straight family is really difficult, and so, I've always survived by surrounding myself with the community and with chosen family, with a lot of friends and great people in my life. And so, I really look forward to being able to reconnect with those people again that I have not been able to see for nine months. And I'm sure, you know, until 2022, I will not be able to see all my friends yet, but I really look forward to seeing the friends that I can, when I can. (Bailey, 20s, trans, Montreal).

[M]y family really wants me to move home. They always have. And they supported me my whole life, but I've been in Vancouver for like ten years. And they don't understand the community part. Like, they don't quite get that if I [move home], I don't have a lot of friends. And the Internet dating is quite different up there too. (Lennox, 30s, trans, Vancouver).

In other cases, TGNC participants reported feeling isolated following the mandated closure of community spaces where they could gather with other queer and trans people.

I mean, yeah, my–so, I play. . .in a gay/queer [sports] league, so that was a huge part of my social life, as well. So, that has been pretty much cut off completely. So, I'm, like, just very isolated from queer community, I think, other than my few friends who I speak with, you know, text with or whatnot." (Casey, 40s, trans, Toronto).

I went to an event prior to the [COVID-19] pandemic with just like people who like also had like trans experience and like being in a room with people who just like get it. And like it was so liberating, and instead I'm stuck in an apartment with like you know, I love [my partner], but he's a cisgender guy and he doesn't get it. (Alex, 30s, non-binary, Toronto).

COVID-19 lockdowns resulted in varying degrees of social isolation as TGNC participants could not meet in person with members of their communities.

3.9. Virtual Engagement. In the wake of lockdowns, participants in our study explored online opportunities to connect with other TGNC individuals, build relationships, and share resources. The participants below shared some of the ways they used social media to engage with members of the TGNC community. During lockdowns, social media platforms became important spaces where participants could access gender-affirming content and meet new people.

I mean I'm not old but, like, I think sometimes technology gets beyond me but, like, TikTok, Instagram all that stuff just has amazing–especially trans content. Like there's lots of great transgender boys I've learned that are amazing TikTok videos for other transgender boys to see. And I'm going yay. It's just good, overall–like, just a lot of queer content." (Taylor, 20s, trans, Toronto).

[D]uring the beginning [of the COVID-19 pandemic my partner and I] kind of started doing a lot more social media, we started giving trans awareness on Instagram and stuff like that. But that, yeah, it just kind of build up more social interaction that way to go online, stuff like that. So, that definitely. (Logan, 30s, trans, Vancouver).

Virtual platforms also served as a space where TGNC individuals shared resources about their transition process and received affirmation about their gender identity and expression. However, participants also highlighted the limitations of these platforms, including concerns about privacy and confidentiality on these websites.

> [T]here are Discords and Reddit communities but they're pseudo-anonymous and you never really know who is in there, and like I have paranoia now and it's like is this person actually engaging me in good faith or are they collecting information on me... Like you know, for like obvious reasons, but I do want to talk actually with somebody about HRT is going to do to my genitals because like everybody's experience is different and like there are like exciting aspects and scary aspects and like it's a lot, right. (Alex).

Overall, virtual platforms were used as tools to overcome TGNC individuals' feelings of isolation during COVID-19.

4. Discussion

TGNC participants in our study experienced significant barriers to healthcare during COVID-19 lockdowns in Canada. The implementation of prevention measures to curb the spread of the coronavirus resulted in disruptions to multiple industries that negatively impacted the health and well-being of TGNC individuals. Participants reported shortages in hormone supply, limited access to HCPs for trans healthcare, and delays for multiple gender-affirming surgeries [55–58]. These barriers caused great discomfort for participants, particularly those who needed access to these services to maintain or achieve their desired gender expression. Although participants noted that the loss of community spaces and support networks during lockdowns was difficult to deal with, many individuals demonstrated resourcefulness and innovation by making use of virtual spaces to connect with community members. COVID-19 lockdowns also created an environment where several participants could pursue different forms of gender expression without fear of judgment.

Existing barriers to care for TGNC people were exacerbated within the context of COVID-19. Similar to participants in our study, TGNC individuals across Canada reported difficulties accessing medication for HRT, and mental health struggles following surgery delays [59]. TGNC individuals typically wait a long time to access gender-affirming surgery. Although TGNC individuals can typically schedule a gender-affirming procedure within a year of securing a surgeon [60, 61], a BC report found that some patients have waited as long as nine years between approval and their surgery date [62]. Gender-affirming genital surgeries in Canada are only provided at three clinics in Canada [63, 64]. Surgery cancellations during COVID-19 can therefore be extremely frustrating and discouraging for those who have been waiting for such a long time. Surgery delays have accumulating impacts on how TGNC people organize their lives because patients not only have to make time for the surgery itself, but they must also schedule time off to recover and readjust before re-entering their social worlds. Some individuals may also defer professional plans and/or personal goals until they have access to gender-affirming care to minimize exposure to transphobic violence. This is demonstrated by Lennox, who expressed concerns about returning to work before their gender-affirming treatment was completed.

Although gender-affirming surgeries are considered elective procedures by public health institutions in Canada, delays can have serious implications for patients' mental health [65]. Flaherty et al. [66] note that these concerns may be downplayed by HCPs who argue that TGNC patients are already accustomed to waiting long periods for medical care and that the focus on surgical interventions diminishes the importance of other aspects of gender-affirming care. A US-based study found that delays in gender-affirming care were not associated with negative health outcomes for TGNC people [67]. Data in this study were collected March-June 2020 and participants, as well as HCPs, may not have anticipated the extent to which COVID-19 would affect access to gender-affirming care in the months to come. Our current study benefits from tracking TGNC participants' experiences over a longer period to understand how their lives were affected at different stages of the pandemic. Interruptions to gender-affirming care might also have more profound implications for TGNC people in Canada considering the small number of HCPs who provide genital surgeries (as noted above). The majority of participants in the US-based study lived in cities with a high distribution of HCPs offering gender-affirming surgery [68].

Although we recognize that surgery is one component of gender-affirming care that not all TGNC people may want, we disagree that surgery is not important for mental health outcomes. Access to these services has a significant impact on TGNC people's mental health, such as reducing the risk of suicide [69]. More recently, scholars pursuing work on trans healthcare have argued that gender-affirming procedures are "not cosmetic or elective; it is essential and necessary" [70]. In Foucauldian terms, the designation of gender-affirming surgeries as cosmetic or elective raises important questions about how TGNC people's lives are valued. As Lennox asked, "could you imagine telling a cisgendered man that he can't have erections?" Lennox's question makes visible a hierarchy of value in healthcare spaces, one where the needs of TGNC individuals are rarely prioritized. Policies, practices, and cultural norms that render the healthcare needs of TGNC people as nonurgent help shape our collective understanding of (and investment in) TGNC communities. In fact, these discourses have profound implications for the lives of TGNC people. Taylor (30s, Toronto), for example, worked for a business that included HRT coverage because these forms of care were perceived as *essential* and *necessary* to maintain the health of employees.

As we have argued, the presumed subject of public health is cisgender. They are also white, heterosexual, able-bodied, middle-class, and relatively young. Although our present analysis focuses on the experiences of TGNC people in Canada, our interrogation of "essential" vs "elective" procedures is meant to highlight the (potential) impacts of these labels on multiple communities that may not be the imagined or intended "public" in public health. In light of this, we argue that queer theory can be mobilized to redefine essential care for people who are 2SLGBTQ+, living with disabilities, elderly, or who otherwise occupy positions of marginality. While we argue for the elimination of all

barriers to trans healthcare [9, 71, 72], the experiences of participants like Bailey (who stopped taking HRT during lockdowns) remind us that their gender identities are not dependent on, nor defined by biomedical interventions. In other words, while some TGNC individuals undergo gender-affirming surgeries and seek HRT, our participants noted that their identities and experiences as TGNC people were not made more legitimate because of these procedures or treatments.

Our participants' perceptions of trans healthcare (and health services more broadly) during the COVID-19 pandemic were informed by previous experiences navigating public health institutions in Canada. Although Taylor noted that HCPs are trying to be more inclusive of queer and trans individuals, they required the physical support of friends when accessing in-person care. Participants also emphasized that barriers to healthcare persist in other forms, such as a failure to update personal documents to reflect patients' current gender identity [73]. Casey described similar challenges seeking care, adding that misgendering and bureaucratic factors significantly impact the quality of care they had received in the past.

Drug shortages during the COVID-19 pandemic were not unique to patients on HRT [74]. Nor are drug shortages in Canada unique to COVID-19 [75–77]. It is critical that future pandemic preparedness include strategies to minimize supply interruptions in the provision of medication for Canadians, including people on HRT. Drug shortages during pandemics like COVID-19 and the lack of HCPs who can prescribe and administer drugs undermine TGNC people's adherence to their HRT regimen, and can negatively impact their mental health, including self-image. Furthermore, abrupt changes (i.e. sudden stoppage) in one's HRT regimen can adversely affect a person's physical and mental health [78]. Despite the challenges associated with seeking care during COVID-19, Taylor was happy to have secured a job that covers the cost of HRT–a cost that he was otherwise incurring personally.

At present, Yukon has the most comprehensive health coverage for TGNC people in North America following an expansion of covered services in 2021 [79]. All provinces and territories in Canada provide coverage for genital reassignment surgery, as noted above, there are only three locations where TGNC people can access these procedures. Otherwise, health coverage varies widely across the provinces and territories. For example, British Columbia covers psychiatric services, but only partial or conditional coverage for hormone therapy. Ontario covers the cost of counseling and assessment for hormone therapy, but hormones are only covered through the Ontario Drug Benefit program. Quebec also provides partial or conditional coverage for HRT [79]. In addition to stark differences in health coverage, patients must also navigate time-consuming bureaucratic processes involving multiple healthcare providers.

The economic impact of COVID-19 on Canadians' lives has been severe, however, 2SLGBTQ+ people are more likely to work in industries that have been disproportionately affected by COVID-19 lockdowns [80]. Taylor, for example, was employed in one such industry and experienced several disruptions to their employment (work hours, location, etc.) during the pandemic. The lack of comprehensive (and consistent) coverage for trans healthcare across Canada creates a burden for TGNC individuals who are already navigating multiple economic pressures during COVID-19. Although participants in our study were more concerned with HRT supply rather than cost, their experiences highlight some of the ongoing financial obstacles that TGNC individuals face when seeking care.

COVID-19 lockdowns in Ontario provided Alex, a nonbinary participant in Toronto, the time and space to explore their gender expression in ways that were largely unavailable to them prior to the pandemic. The prevalence of transphobia and gender policing in institutional spaces cultivates inhospitable environments for TGNC people to be honest about their gender identity. Furthermore, the specific investment in transnormative representations of gender alienates individuals who do not adhere to a binaristic understanding of gender [81]. While at home, Alex could more freely explore and embrace traditionally feminine performances of their gender expression. However, the cis-heteronormative pressures of the workplace affected the extent to which Alex was willing to visibly present as a nonbinary person outside of their home. In contrast, Bailey, a Montreal participant, stopped using testosterone during the first COVID-19 lockdown in Quebec primarily because he was no longer interacting with people in person. Bailey reported maintaining his HRT routine (pre-COVID) to accommodate the feelings of the people he interacted with. HRT, then, was a method by which Bailey tried to mitigate exposure to gender policing and transphobia in his everyday life. Alex and Bailey's practices during COVID-19 also alert us to the violence of femmephobia in the lives of trans men and nonbinary people. Bailey's assertion that he used testosterone to make other people feel comfortable suggests that he was concerned about his health and safety. In other words, he was mindful of the consequences of not being seen as sufficiently masculine. Alex, on the other hand, felt that they could only embrace femininity at home. These two examples shed light on some of the ways a society's preoccupation with traditional performances of masculinity (as a function of cisheteropatriarchy) creates an increased risk for TGNC people [82].

Provincial lockdowns, social distancing, and self-isolation guidelines from public health institutions created what Quathamer and Joy [16] refer to as a "queer time" for 2SLGBTQ+ people. Although some 2SLGBTQ+individuals (particularly those who are young and live with family) experienced social surveillance in domestic spaces [16], time away from social environments that demand consistent and legible performances of gender allowed TGNC people to connect with and explore their bodies without external pressure. While comprehensive quantitative data is not yet available, there is some evidence to suggest that COVID-19 lockdowns (specifically, opportunities for remote work) have made it easier for more people to come out as TGNC [83, 84]. Our current study does not fully capture the experiences of

TGNC people who returned to in-person activities post-lockdown; however, our findings suggest that there may be increased demand for gender-affirming care and mental health services, particularly for those who came out as TGNC during lockdowns.

Although COVID-19 lockdowns eased some of the societal pressures to adhere to traditional forms of gender expression, these COVID-19 prevention measures generated other problems that impacted our participants' mental health. One cross-Canadian study found that COVID-19 had negatively impacted access to community spaces for TGNC people [85]. The absence of in-person queer spaces of support particularly affected young TGNC individuals [86]. The closure of these spaces and limitations to social gatherings meant that TGNC individuals were cut off from vital and affirming support networks. A third of the TGNC participants in our study lived alone and lacked access to communal spaces that would have eased some pandemic-related stressors. Many TGNC people who cohabitated with relatives during COVID-19 lockdowns faced transphobic violence from family members [87]. Although these experiences were not widely reported by participants in our study, participants who lived with and/or maintained contact with relatives during the pandemic desired opportunities to spend time with other TGNC people and members of the 2SLGBTQ+ community more broadly.

TGNC people demonstrated a great deal of resourcefulness during lockdowns, using social media to share information about the availability of HRT medication locally and sharing strategies to extend use. For many participants, online spaces offered recourse to the negative impacts of pandemic restrictions [88–90]. Participants noted that there were opportunities to connect with TGNC individuals online during the lockdown and that these platforms allowed for the dissemination of important resources. However, these virtual spaces did not provide the same sense of safety or camaraderie as physical spaces.

5. Limitations and Future Directions

Our sample is relatively small. However, we assert the importance of this work in shedding light on the experiences of TGNC individuals during COVID-19. Scholars who employ queer methodologies in their work have noted that the social sciences favor positivist research with low *p*-values and high sample sizes [91, 92]. Queer theory is not without its limitations. Several theorists have taken issue with how trans people are taken up in queer theory [37, 93]. Nash [37]; for example, has argued that some deployments of performativity have "rendered the transgendered [sic] subject an imaginary, fictional and merely metaphorical presence in the service of a larger intellectual project" (p. 583). Every theory has its limitations. In our study, a queer theoretical framework served as an important tool to examine how public health practices construct normative subjects and exclude TGNC people. It also alerted us to important discursive practices that position some forms of care as elective or optional, and others as necessary.

Our objective was to make a timely exploration in understanding the specific experiences of TGNC individuals during COVID-19, however, this study would benefit from increased engagement from TGNC participants. Specifically, our study has some capacity to focus on the experiences of trans men, but the design of our cohort study, focusing on gay, bisexual, queer, and other men who have sex with men, regardless of gender identity, limited our capacity to purposively recruit participants who identified as nonbinary and/or gender nonconforming [45]. We recognized, however, that some participants reported changes in their gender identity over time. Our participants also resided in major urban centers and so our study is unable to investigate the impact of COVID-19 on health services in places where there is less infrastructure and resources for trans healthcare, such as rural towns and some suburban communities. It is anticipated that TGNC participants living in rural or small urban centers will face similar challenges outlined above but will also have unique experiences that have not been captured by these findings. Finally, our understanding of service disruption during COVID-19 and its longer-term impacts would be enhanced by speaking with TGNC individuals who were at different stages in their transition. Considering the chronic barriers to care that TGNC people face in Canada, we are less concerned with when TGNC people were facing challenges relative to the progression of the COVID-19 pandemic (first wave, second wave, etc.), but rather how these COVID-specific disruptions affected their lives relative to their gender journey (i.e., connecting with a healthcare provider, starting HRT, scheduling surgery, and postsurgery recovery).

6. Conclusion

Our study contributes to the growing body of public health scholarship on COVID-19 which, as our participants noted, has largely rendered TGNC people invisible. Our findings indicate that research and policy interventions focused on advancing the health of 2SLGBTQ+ communities must adapt their approaches to appropriately address and respond to the specific needs of TGNC communities. TGNC communities faced chronic barriers to healthcare before the COVID-19 pandemic. The barriers increased as lockdowns were implemented, and public health resources were redistributed to tackle the spread of the virus. As Canada's approach to COVID-19 shifts and members of the public move towards a "new normal," we must push public health leaders, policymakers, healthcare providers, and employers to resist gender normativity in their operations. It is vital that places of employment and public health institutions take meaningful and sustained steps to address transphobia within their organizations. Recent evidence suggests that more people have come out as TGNC during COVID-19 and proactive steps must be taken to support the health of TGNC employees and patients. As our population and public health systems transform in response to health crises, it is important that we continue to interrogate the subject around whom public health is organized, and advance a more capacious model of health.

7. Disclosure

The Engage Cohort Study is led by Principal Investigators in Montréal by Joseph Cox & Gilles Lambert; in Toronto by Trevor A. Hart & Daniel Grace; and in Vancouver by Jody Jollimore, Nathan Lachowsky, and David M. Moore. More information about the Engage Cohort Study can be found here: https://www.engage-men.ca/.

Data Availability

The qualitative data used to support the findings of this study are included in the article. Due to privacy concerns, full transcripts are not available to the public.

Conflicts of Interest

The authors declare that they have no conflicts of interest.

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