


Health and Access to Gender-Affirming Care During COVID-19: Experiences of transmasculine individuals and men assigned female sex at birth

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Abstract

Since the onset of the COVID-19 pandemic, global research has suggested that the pandemic has negatively affected lesbian, gay, bisexual, transgender, and queer or questioning (LGBTQ) populations, including by limiting health care access. There is little research on the impact of COVID-19 among transmasculine persons and men assigned female sex at birth (AFAB) in the United States, who face unique health care challenges outside of the pandemic context. Between May and June of 2020, 20 transmasculine individuals and AFAB men who have sex with men participated in semi-structured interviews about their experiences during the early months of the COVID-19 pandemic. Participants were asked how the pandemic affected their access to health care, overall health, and well-being. Interviews were analyzed using an inductive, thematic approach. Participants reported reduced access to in-person health care, which in some cases meant overdue hormone-related bloodwork and unmet health care needs. Most participants reported that they were able to maintain their testosterone regimen, although some were concerned about future access, citing anxiety about potential shortages. Three participants reported canceled or deferred gender-affirming procedures, which they were uncertain would be rescheduled soon. Participants generally reported that the expansion of telehealth improved access to care, particularly for gender-affirming psychotherapy that was otherwise inaccessible or inconvenient prior to the pandemic. Other salient themes include the pandemic's impact on health behaviors and daily routines. Although the COVID-19 pandemic created new challenges for maintaining health, it also expanded access to gender-affirming health care, largely through the expansion of telehealth. Our findings provide new insights for supporting the health of transmasculine individuals and AFAB men.

Keywords

qualitative research, trans men, telehealth, access to health care, gender-affirming care

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Introduction

As a result of the 2019 severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) pandemic, a multitude of changes to daily life occurred between the months of March and May of 2020 across the United States (Moreland et al., 2020). Stay-at-home orders, social distancing, and work-from-home conditions ushered in a new way of life for many, as public health measures went into place to minimize the spread of SARS-CoV-2. Social distancing measures led to increased isolation

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from nonhousehold friends, family, and social support networks, potentially negatively impacting mental health and well-being (Tyrrell & Williams, 2020). At the same time and in an effort to minimize the spread of SARS-CoV-2, many medical offices closed their doors to non-emergent care, including routine medical care and in-person, gender-affirming care (Carvalho Aguiar Melo & de Sousa Soares, 2020; Czeisler et al., 2020). These changes have had a profound impact on the general population but may have disproportionately impacted gender-expansive populations, including transmasculine persons and men assigned female sex at birth (AFAB; Czeisler et al., 2020; Kidd et al., 2021; Phillips Li et al., 2020).

At the start of the pandemic, researchers and advocates highlighted the importance of access to gender-affirming care, including hormone therapy, gender-affirming surgeries and procedures, and counseling services, and have raised the issue of the pandemic presenting new barriers to care for trans populations (Chatterjee et al., 2020; van der Miesen et al., 2020). Gender-affirming surgeries and hormone treatment can be protective against psychological distress, suicidal ideation (Almazan & Keuroghlian, 2021), depression (Aldridge et al., 2020), and anxiety and are associated with greater quality of life (Baker et al., 2021). However, with the onset of the pandemic, many providers shifted quickly to providing care via telehealth, including through video conference and phone calls in lieu of in-clinic visits.

Extant research suggests that transgender individuals already face health care barriers, including discrimination, structural stigma, financial barriers, inadequate access, and providers without sufficient knowledge to provide trans-inclusive care (Hsieh & Shuster, 2021; Johnson et al., 2019; Kcomt et al., 2020). A cross-sectional study using data from the 2015 Transgender Health Survey reported that 22.8% of trans participants reported avoiding health care due to anticipated stigma, and trans men were among the most likely to report avoiding care (Kcomt et al., 2020). Other studies have revealed similar and parallel findings. For example, Alizaga et al. (2021) demonstrated that trans men were 3 times as likely to report anticipated health care discrimination and were more likely to have experienced discrimination when compared with their trans counterparts. Stanton et al. (2021) reported that among a gender-expansive sample, trans men, AFAB nonbinary individuals, and trans women were most likely to report attending one behavioral health appointment. In the same study, trans men were among those attending the fewest number of behavioral health appointments, suggesting that even when trans men have access to care, they may face additional challenges that make attending appointments undesirable (Stanton et al., 2021). In addition, a U.S. nationally representative sample of trans individuals revealed that

nonbinary individuals were the most likely to report challenges accessing gender-affirming care compared with other trans individuals (Feldman et al., 2021). Together, these findings suggest that there are between-group differences with regard to gender-expansive persons' experiences navigating health care, including gender-affirming care.

There are limited data on the delivery of gender-affirming health care during the COVID-19 pandemic, including maintaining or starting gender-affirming hormone therapy and mental health counseling. However, the extant research suggests that telehealth helped maintain access to care in the United States and Australia, despite clinic-closures resulting from COVID-19 (Zwickl et al., 2021; Lock et al., 2021). For example, clinical data from 10 family planning clinics in the U.S. suggested that telehealth maintained individuals' access to gender-affirming care, while increasing the proportion of new patients seeking gender-affirming care (Lock et al., 2021). Furthermore, a cross-sectional study conducted prior to the pandemic, revealed that gender-expansive youth reported telehealth as largely acceptable for delivering gender-affirming care (Sequeira et al., 2021).

Although there is a growing body of literature exploring the effects of the pandemic on lesbian, gay, bisexual, transgender, and queer or questioning (LGBTQ) populations, there remains a dearth of data on its effects on trans and nonbinary individuals. Much of the extant literature has focused on mental health outcomes and access to gender-affirming care, leveraging quantitative data to answer questions about self-reported health, access, and acceptability. Further qualitative research is needed to better understand the complex health and health care experiences of trans individuals during the ongoing COVID-19 pandemic. In this study, we explore how the pandemic has affected transmasculine persons and AFAB men—exploring how it has influenced their access to health care and overall health behaviors.

Method

Participants and Procedures

This study uses data collected as part of the *Together 5,000* study, a U.S. national, internet-based cohort study of cisgender men, transgender women, and transgender men who are vulnerable to HIV. The cohort study has been described in detail elsewhere (Groves et al., 2019; Nash et al., 2019). The purpose of the cohort study is to identify missed opportunities for HIV prevention and PrEP use. In brief, enrollment began in October 2017 using ads on men-for-men geosocial sexual networking phone applications and concluded in June 2018. Eligibility criteria specified that participants were cisgender men,

transgender men, or transgender women; aged 16 to 49 years; and at risk for HIV (see Nash et al., 2019, for full criteria). During the course of the cohort, we oversampled individuals on the transmasculine spectrum, all of whom were AFAB and now identify as male, trans male, nonbinary, or transmasculine—to allow us to contribute meaningful scientific observations for this vulnerable population. The current study sampled from these 334 transmasculine persons enrolled in the cohort. For the present analyses, we interviewed 20 transmasculine individuals about their experiences during the COVID-19 pandemic. With a goal of interviewing approximately 20 individuals, we invited a total of 58 participants and interviewed the first 20 to respond. During the period of interview completion, staff interviewers took notes and met regularly to compare themes arising. The interviewers agreed that during the final interviews, no new themes arose in the data and thus deduced that they had reached data saturation and could cease data collection. Interviews were conducted via video conference software and recorded. Participants provided written informed consent and were given a US\$40 Amazon gift card for their time. Interviews were conducted between May and June of 2020, approximately 2 to 3 months after the start of the pandemic in most states in the United States. All procedures were approved by the institutional review board (IRB) of the City University of New York (Approval No. 2017-0893).

Measures

Two staff members trained in qualitative methods conducted one-on-one, in-depth, semi-structured interviews via Zoom. The qualitative interview investigated how the pandemic affected participant's well-being, health care access, and social and sexual lives. Audio recordings were transcribed verbatim and transcripts were verified against audio recordings to ensure accuracy. Interviews followed a semi-structured interview guide, which required interviewers to cover 14 questions and allowed for individualized probing based on initial responses. In this manuscript, we present findings on how the pandemic affected participants' health behaviors and access to health care.

Demographics and behavioral characteristics (see Table 1) were derived from data collected (via online survey) during enrollment.

Data Analysis

An inductive, thematic approach was used to analyze participants' reflections on their experiences during the early months of the COVID-19 pandemic (Corbin & Strauss, 2014). Our analytic process was guided by our data, rather than prior literature, given the dearth of literature on

Table 1. Demographic Characteristics of Participants, N = 20.

Characteristics	M ± SD or n (%)
Age	33.55 ± 6.73
Race/ethnicity	
White	12 (60)
Latinx/Latino	1 (5)
Multiracial	7 (35)
Sexual orientation	
Gay, Queer	19 (95)
Pansexual	1 (5)
Gender	
Male	5 (25)
Trans male	11 (55)
Nonbinary	3 (15)
Transmasculine	1 (5)
Gender-affirming hormone therapy	
Yes	19 (95)
No	1 (5)
Primary care provider	
Yes	18 (90)
No	2 (10)
Health insurance	
Yes	17 (85)
No	3 (15)
U.S. region	
Northeast	7 (35)
Midwest	3 (15)
South	7 (35)
West	3 (15)

transmasculine individuals and the COVID-19 pandemic's effects on health care access and well-being at the time. After several close reads of the transcripts, initial codes were identified inductively by the second author. The first author then reviewed the codebook against the transcripts leading to codebook edits and reorganization of the codes. The final codebook consisted of nine codes and child codes (i.e., subcodes) and two broad themes. We used Dedoose, a qualitative software program, to code our data set. Codes were applied across all 20 transcripts by the first author and over 50% of code applications were reviewed by the second author. Quality assurance discussions between the first and second author resulted in 100% agreement of final code applications.

Results

Participants were on average 33.5 (range = 21–49) years old. Participants endorsed several gender identities, including male, trans male, transmasculine, and nonbinary (see Table 1 for descriptive statistics). The majority of participants were White (60%, $n = 12$) and most reported

having a primary care doctor (90%, $n = 18$) and being insured (85%, $n = 17$). Most participants reported using gender-affirming hormone therapy (i.e., testosterone; 95%, $n = 19$). Finally, most participants were from either the northeastern (35%, $n = 7$) or southern (35%, $n = 7$) United States.

Health Care Access

Although some participants reported no changes in their health care use, many reported interrupted use and access to health care during the early months of the pandemic. Barriers to health care were both a result of COVID-19 restrictions and personal avoidance of health care facilities as a voluntary measure to reduce exposure risk. Decreased use of in-person health care meant that participants had unmet medical needs, including overdue eye examinations, dental care, reproductive health care, and PrEP care, among other medical needs. One participant described their need for care, saying,

I haven't been able to see the person I go to for reproductive health. I haven't been able to see them since COVID has started. So I used to go get my bloodwork done while I was on hormones. I was looking into birth control as well, because like even though testosterone naturally stops certain things, it's not a surefire way of stopping pregnancy. And that [testosterone], essentially has also stopped. (trans male, age 25, South)

In-Person Care and Pharmacy Access. Barriers to in-person care meant that some participants were overdue for hormone-related and general bloodwork. Participants reported varied levels of concern regarding overdue bloodwork and other needed in-person health care. For example, one participant reported elevated concern regarding overdue bloodwork, saying,

Now my health challenge is actually regulating my hormone levels within a safe range in my body. So I metabolize testosterone really fast . . . Moving to [City] is the first time I've ever had an endocrinologist. Everyone else was either a person I had to teach . . . Or a pediatrician who decided to see trans people because she was fascinated by it, you know what I mean? It was everyone's side project to try to figure this out. And not that that's bad. But the lady I see now she's like 'alright, I've seen people like you for 20 years. I understand what's happening, so not having access to her in-person is kind of hard . . . I can't wait 'till this is over so I can actually get my levels back where they need to be because it's dangerous . . . So it's just, that, to me is the worst part of all this. (trans male, age 39, Midwest)

Participants generally reported reliable access to masculinizing gender-affirming hormone therapy (i.e., testosterone) during the early pandemic. Some reported

that their testosterone prescription was delivered to their home, while others picked up their prescription at a local pharmacy. However, some participants reported discomfort picking up their prescription at their pharmacy due to concerns about SARS-CoV-2 exposure, while others were concerned about maintaining their hormone-related care, as well as potential testosterone shortages as the pandemic continued. For example, one participant expressed their concerns, saying,

Unfortunately, I have to get bloodwork done twice a year for everything else. Like that makes me anxious, not being sure when I can see the doctor—if and when I can refill my prescription. Really nothing I can do. I mean, I know that my partner has kind of a stockpile. So if worse came to worse—But I mean, let's say this drags on another three months. I can't use—I mean three months of medication is like you know, an entire bottle. (trans male, age 39, Northeast)

To cope with these concerns, participants reported reserve supplies of testosterone or rationing doses to stretch out of their prescription in case of supply chain issues or temporary lapses in access. Overall, most were confident that they could maintain their prescription, with some underlying anxieties emerging when the subject arose:

I was worried about it earlier on and I'd actually lowered my dose of testosterone because I wasn't sure what was going to happen with supply chains and everything. But since things seem to be operating alright, I've been taking the normal dose again . . . I was concerned that there would be disruptions in being able to get them and I would rather take a lower dose than to miss big chunks of time. (transmasculine, age 35, Northeast)

Although most participants did not report barriers to gender-affirming surgeries, three participants did report canceled, indefinitely delayed, or differed plans for gender-affirming surgeries or nonsurgical procedures. These included canceled and delayed hysterectomies and a liposuction treatment. One participant described the context around their canceled gender-affirming surgery, saying,

I did have a transition-related surgery planned that I've literally been working on having for 20 years and I finally had a date scheduled, and then everything . . . like we'll pick that up at some point. It'll be okay . . . I've been trying to have a hysterectomy since I was 12 years old because I knew that I never wanted kids . . . so I've asked every single doctor and OB-GYN that I've been to since I was 12 if I can have a hysterectomy, and I've heard every excuse under the sun, and now that I'm trans, I'm like, "guys I'm serious, I've been telling you this for 20 years." So I finally went to an OB and he was just like "okay," and I'm like, "What do you mean, okay?" And he's like, "I mean, yeah, sure, we can schedule you for it . . . I'm on board" and I'm like, "you're actually on board, holy crap." So I worked with him. And we

had a date scheduled. And then my insurance was being screwy because they don't want to pay for stuff like that. And so I had to go see a couple of therapists who were basically like, "yes, he's serious and stable and doesn't want a uterus, let's do this." And so I was getting all of that going. And we had a date, at least kind of tentatively scheduled. And that was right around the time that everything kind of hit the fan. And so it's just kind of ground to the halt. (trans male, age 32, Midwest)

Another participant reported that their top surgery (i.e., masculinizing chest reconstruction) was scheduled to proceed as usual. However, they were conflicted about going to the hospital during a pandemic for the procedure:

I don't want to go into a hospital with this going on. But I also don't want to put this off any longer. So I'm feeling like a weird, neutral . . . I really don't know and I'm just doing what I feel I'm supposed to do. (trans male, age 29, South)

Telehealth Experiences. In lieu of in-person health care, many participants reported utilizing telehealth appointments. As one participant related, "The only gender-affirming care I am getting right now is testosterone . . . I only have to see her once a year, I was able to do that through Zoom or telehealth or whatever, right? That wasn't interrupted at all" (trans male, age 38, Northeast). These appointments included routine care with primary care providers, as well as specialty care, including endocrinology. Most frequently, participants reported using telehealth for mental health counseling and psychiatry. For example, one participant explained, "I do regularly see a mental health care provider. And so we've had to do video chats through my health care app on my phone. And I've had to do therapy sessions over the phone" (nonbinary, age 26, West). Some participants explained that telehealth improved access to LGBTQ-inclusive mental health care, including by connecting participants with remote trans or queer therapists who otherwise would not be accessible without telehealth. As one multi-racial participant explained,

So I'm actually doing telehealth with a therapist who is about 130 miles from me or so. So anyway, a queer white trans guy, probably not quite as old as I am. So that's kind of exciting for me to be able to see a therapist who I don't have to explain everything. (trans male, age 49, South)

Others explained that telehealth was convenient and made accessing quality care easier, either by removing travel time or other barriers to care. One participant described the benefits of telehealth, saying, "My doctor that prescribes my hormones is an hour and a half away. So I am grateful that I don't have to do a three hour round trip drive" (trans male, age 32, Midwest). Another related,

". . . now people are doing the remote appointments so because of that I can get much better health care actually" (male, age 32, West).

Participants also highlighted challenges that came along with remote care via telehealth, including for those who eventually came to appreciate the platform. For example, some participants felt awkward or expressed difficulty adjusting to the new platform for health care. One participant explained how they felt during telehealth sessions, saying,

I guess [I feel] a little bit more awkward in a way and it feels especially like with certain things that are more physically related, you can't get as thorough care as you would be able to otherwise for sure. (male, age 30, South)

Others felt it difficult to emotionally connect with their mental health counselor or therapist via telehealth, affecting their quality of care negatively and even discontinuing mental health care. One participant emphasized the features of in-person care that could not be replicated remotely, saying, "the telehealth with my therapist is not as great as an in-person meeting, just the body language and eye contact and all that stuff is really different" (non-binary, age 34, Northeast). Another participant expanded upon these drawbacks, saying,

I don't feel connected to my therapist in the way that I do in-person. I kind of find that it's a little bit awkward to talk about deeper stuff virtually. I think it makes it a little bit more comfortable for me when we're in-person. (male, age 25, South)

Finally, participants acknowledged the practical limitations of telehealth, particularly when labs were needed, or physical examinations necessary.

Notably, some participants discussed telehealth utilization within the broader context of their experiences trying to access trans-inclusive health care. For example, participants pointed out that accessing medical services as a trans person often meant insurance coverage denials, doctor refusals, and a paucity of culturally competent local care. Some participants were hopeful that telehealth could improve gaps in access, particularly for rural individuals:

. . . in [City], you can get transition related care. I mean, if you know where you need to go, and it's a big city, so you have to travel and [there are] barriers to care, because if you don't live within one of these areas, you could have to travel quite a distance. But now with telehealth, people are seeing these providers—two of our Planned Parenthood [providers] just started doing transition-related care last year, and they have telehealth, which has vastly improved access to care for so many people. Why have we not been doing this? It's just

opening up options for us and I've seen my regular doctor twice over telehealth and a specialist last week, and so it's just different. (trans male, age 49, South)

In contrast to those who believed telehealth improved their health care experience, one participant explained that their medical care frequently required strong self-advocacy, including guiding providers through exactly what services were needed. This participant was concerned that telehealth would make this process more difficult and impact their ability to receive appropriate care. They explained,

I never get anything out of just—especially not for trans things . . . even when I sit in a room, I don't think people understand it sometimes, I really have to be adamant about—"This is what's wrong with me, and we need to test these things." And if I'm not sitting in front of the person and being really adamant about it, even if they're really supportive, it doesn't happen. And I get denied medical care in this state all the time. (trans male, age 39, Midwest)

Health Behaviors and Environment

Participants reported a number of changes to their daily life as a result of the COVID-19 pandemic that affected overall health and well-being. These included changes in health behaviors, daily routine and environment, and familial and career responsibilities. Unsurprisingly, participants described increased time spent at home during the pandemic. Participants acknowledged challenges that arose while working from home and with stay-at-home orders in place, which often converged work, family, and personal responsibilities into one space. Responsibilities were particularly heightened for parents and caretakers, who now had to juggle 24-hr care while meeting professional responsibilities in the home setting. In contrast, others reported reduced work and career-related responsibilities, with more time allotted to personal needs, including taking care of their health and well-being. Finally, participants also reported sleep disturbances, sometimes related to changes in employment and routine.

As a result of increased time spent at home, participants reported a number of improvements in their routine and behaviors that were deemed beneficial to their health and well-being. For example, some reported that the additional time spent at home allowed for more time to prepare and enjoy home-cooked meals, leading to intentional increases in fruit and vegetable consumption. Similarly, some individuals reported eating fewer processed foods and ordering less take-out as a result of increased time for preparing home-cooked meals. One participant reported that their diet improved, saying, "I guess my diet has gotten better. Because I am in more definite control of my intake of food and what I'm

cooking and it all is very intentional" (male, age 30, South). However, another participant acknowledged that the pandemic brought with it health benefits *and* drawbacks, saying,

. . . definitely some positives and some negatives. For positives I have started eating better and exercising more and walking my poor dogs feet off . . . I've been eating lower carb and stuff and cooking home all the time, obviously . . . And then my sleep schedule is all messed up. (trans male, age 32, Midwest)

Participants also reported engaging in increased physical activity and outdoor time during the early months of the pandemic. Physical activities mentioned included routine walks, running and other forms of exercise, and generally spending more time outdoors and in nature. Some participants reported that improved eating behaviors were accompanied by increased physical activity, like one participant explained, "I've actually lost like 20 pounds since COVID-19 started because I eat at set times and could pick what to eat because I don't go outside this house. And I walk like seven miles a day" (trans male, age 39, Midwest). Another participant explained that increased physical activity was inspiring diet-related changes, saying, "So my diet hasn't changed, but my exercise really has, which also impacts the fact that I want to eat healthier so that I can walk more" (trans male, age 49, South).

However, in contrast to some behavioral health improvements, some reported increased alcohol consumption and overeating as a coping mechanism, particularly at the beginning of the pandemic. Echoing others' experiences of the pandemic's health-related pros and cons, one participant explained, "I have been drinking more than usual to sort of numb the feelings do arise or sort of escape a little bit. And then also just trying to counter that with running. . ." (transmasculine, age 35, Northeast).

Finally, participants reported regular engagement in counseling and other practices to improve their mental health and mood. For example, some reported regularly attending therapy and practicing therapeutic techniques, including cognitive behavioral therapy (CBT), while others reported regular meditation and mindfulness practices. Participants also reported gardening and creating art as practices that supported their well-being during the pandemic. One participant described their use of mindfulness and meditation as a strategy for maintaining their well-being during the pandemic, saying,

So I've really focused a lot right now on living in the present. What I mean by that is that it's a second-to-second interaction, it's not a day by day, it's a second by second, mindful awareness of what's going on . . . I've gotta live in

my body. So I do a lot of meditation. That helps. (trans male, age 39, Midwest)

Discussion

Our findings suggest that transmasculine individuals and AFAB men have experienced interruptions in routine health care, including gender-affirming care, but have mostly been able to maintain testosterone prescriptions throughout the pandemic. The limited prior literature suggests that trans and nonbinary individuals have experienced interruptions in gender-affirming care (Jarrett et al., 2020; Kidd et al., 2021). Our study largely mirrored these results, with some reporting overdue bloodwork, prescription concerns, and even canceled gender-affirming procedures. We also identified that expanded telehealth increased access and convenience of care, particularly for those geographically far from trans-inclusive health care resources. The expansion of telehealth for gender-affirming care, although imperfect, offers an opportunity to obviate burdensome commuting for trans patients, and can connect individuals with providers who may otherwise have been geographically inaccessible to them. For this reason, expansions of telehealth should be considered a legitimate avenue to increase access to care for trans and nonbinary patients both within the context of the COVID-19 pandemic and beyond it.

To that end, participants in our study discussed how telehealth connected them with culturally competent health care providers, sometimes those who shared their gender or sexual identity. Expansions of telehealth as a result of COVID-19 made geographically distant patient-provider connections possible, increasing options for transmasculine individuals seeking culturally and medically competent care. Previous literature has explored how trans patients often encounter a “knowledge deficit” from their medical providers (Hsieh & Shuster, 2021; Snelgrove et al., 2012). Too often, trans patients are tasked with educating their providers on their anatomy and medical needs as a result of knowledge deficits and inadequate medical training and clinical guidelines for treating trans patients (Hsieh & Shuster, 2021; Shuster, 2016, 2021; Snelgrove et al., 2012). Furthermore, prior qualitative studies have revealed that experiences of (or anticipation of) being misgendered, discriminated against, and experiencing stigmatizing interactions with medical providers and staff create barriers to care for trans individuals (Guss et al., 2019; Hsieh & Shuster, 2021; Johnson et al., 2019; Samuels et al., 2018; Xavier et al., 2013). Thus, expansions to telehealth may help facilitate connections between patients and providers who *are* equipped to treat trans populations while aiding in the removal of barriers to care for these groups. Nonetheless, as one participant noted, communication

via telehealth may make self-advocacy during appointments more difficult as a result of lost shared physical space and touch. The importance of self-advocacy and trans-competent medical providers are themes that have arisen in prior qualitative studies as well (Pratt-Chapman et al., 2021). Ultimately, improved medical education and trainings that address cis-normative biases are needed to address the root causes of culturally and medically incompetent care, and improve care for gender-expansive communities (Kcomt et al., 2020).

The telehealth regulatory landscape has changed dramatically since the onset of COVID-19, with many regulations temporarily lifted in an effort to continue the provision of care during the pandemic (Center for Connected Health Policy, 2021). For example, loosening of state-level licensure laws, audio-only telehealth allowances, compensation “parity,” and expansions to the providers allowed to deliver care via telehealth aided in expanding access to telehealth across states (Center for Connected Health Policy, 2021; Shachar et al., 2020). At the federal level, Medicare coverage for many services via telehealth at parity to in-person care also increased access to care, while in-person facilities maintained limited access. However, many of these developments are temporary and subject to change, or have already been rolled back in some states since the early months of the pandemic (The Federation of State Medical Boards, 2021; Nicol Turner Lee & Roberts, 2020). Ensuring reliable access to high-quality gender-affirming physical and mental health care is integral to the health and well-being of many trans and nonbinary individuals. One way that policymakers can maintain and improve access to care for trans and nonbinary persons is by continuing to allow for the delivery of telehealth across state lines and services while maintaining parity in compensation for providers. This is particularly urgent within the current climate of anti-trans legislation emerging at the state level that aims to limit and prevent the provision of gender-affirming care. The Human Rights Campaign reports that as of February 2021, there were at least 29 bills introduced across 17 states aimed at reducing or barring access to gender-affirming care, mostly for trans youth (Schneiberg, 2021). In Arkansas, HB 1570 passed in April 2021, making the provision of gender-affirming care to youth a felony for medical providers (Schneiberg, 2021). These bills will require advocacy and legal challenges to be reversed. In the meantime, allowing for the provision of care via telehealth across state lines and maintaining insurance coverage of telehealth could provide a temporary solution for maintaining care for trans youth in states that pass legislation limiting access.

Several studies have already evaluated the experiences and acceptability of telehealth among trans and

nonbinary persons. For example, among a sample of predominantly transmasculine youth receiving care at an in-person clinic, over half reported interest in receiving gender-affirming care via telehealth (Sequeira et al., 2021). In addition, the results of a mixed-methods study of gender-expansive youth suggested that most preferred in-person visits for their first gender-affirming care appointment, but also reported a high level of satisfaction with telehealth appointments (Sequeira et al., 2020). The same study revealed that patients enjoyed the convenience of telehealth, and time-saving associated with remote care, but also reported challenges like tech issues and privacy concerns (Sequeira et al., 2020). We also describe that although expansion of telehealth increased access to care, particularly mental health care, it also came with some downsides, including awkwardness and lack of connection with mental health providers. All told, further research is needed to optimize telehealth delivery of gender-affirming care for trans and nonbinary populations and to better understand patient preferences and acceptability.

Participants reported a number of health behavior changes that resulted from stay-at-home conditions during the first year of the pandemic, including altering their diet and exercise. Much of the current literature on nutrition and eating behaviors among transgender populations has followed the biomedical disease model, focusing largely on eating disorders in lieu of broader explorations of nutrition and exercise among trans individuals (Gomes et al., 2021). Current nutritional guidelines rely on a narrow gender binary for making recommendations for daily nutrition, leaving trans and nonbinary individuals without adequate health and nutrient information, nor a sufficient body of literature to build culturally tailored recommendations upon (Gomes et al., 2021). In our study, participants reported that stay-at-home working conditions and additional time spent in the home allotted for more time to prepare food, more intentional control over their diet, and greater time spent exercising; behaviors that could improve physical health and well-being. Conversely, some individuals reported increased alcohol consumption and "comfort eating" during the early pandemic. Trans and nonbinary individuals experience disproportionate rates of substance use disorders, often the result of high rates of stigma and discrimination (Connolly & Gilchrist, 2020). Thus, increases in substance use as a result of the pandemic could have a deleterious effect on trans and nonbinary individuals, as both the loss of protective LGBTQ spaces and stay-at-home orders may leave trans and nonbinary individuals more vulnerable to mental health stress. Our findings require further replication and expansion to fully contextualize these themes within a larger body of literature on trans nutrition and substance use.

Finally, participants reported other home-based practices that were perceived as protective for participants health and well-being, including meditation, telehealth therapy, gardening and creating art, all activities that have been shown (with varying efficacy) to improve mental health and/or well-being (Clatworthy et al., 2013; Goyal et al., 2014; Stuckey & Nobel, 2010; Zhou et al., 2020). All told, these practices are likely to act as protective strategies for improving and supporting the mental health and well-being of trans individuals and thus deserve further study for how they may specifically benefit trans and nonbinary individuals, including by affirming gender identities, and coping with stigma and resulting stress.

Our findings should be understood in light of their limitations. First, these data were collected within the first 4 months of the pandemic, and circumstances have continued to change over time. Thus, further research on the experiences of trans individuals, including those on the transmasculine spectrum, is needed in this later stage of the pandemic to assess how access to care and overall well-being have changed over time, particularly in the context of broader access to vaccines. In addition, the majority of participants in this qualitative study were White, limiting the transferability of our findings to racially and ethnically diverse populations of transmasculine individuals and AFAB men. It is important to understand the experiences of trans people of color who experience intersecting identities that may put them at heightened vulnerability to the pandemic and its secondary economic and psychosocial effects. Finally, although this study included participants across U.S. regions and urban-rural environments, it was not designed to examine between-group differences. Thus, further research may benefit from studies that explore the experiences of transmasculine persons across regions and levels of rurality and urbanicity. The COVID-19 pandemic has affected the entire United States; however, experiences are likely to vary based on population density and regionality.

Conclusion

The COVID-19 pandemic has created unique barriers to health care access among transmasculine persons and AFAB men. This restricted health care landscape has also necessitated expansion of telehealth availability, improving access to gender-affirming services such as hormone therapy and mental health counseling, which have become increasingly crucial considering the mental health strain associated with the pandemic. These findings may suggest a new direction in which to focus efforts to improve the health and well-being of transmasculine individuals and AFAB men within and beyond the COVID-19 pandemic context.

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Ethics and Consent Statement

All procedures were approved by the institutional review board (IRB) of the City University of New York (Approval No. 2017-0893). Participants provided written informed consent before participating in this study.

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References

- Aldridge, Z., Patel, S., Guo, B., Nixon, E., Pierre Bouman, W., Witcomb, G. L., & Arcelus, J. (2020). Long-term effect of gender-affirming hormone treatment on depression and anxiety symptoms in transgender people: A prospective cohort study. *Andrology*, 9, 1808–1816. <https://doi.org/10.1111/andr.12884>
- Alizaga, N. M., Aguayo-Romero, R. A., & Glickman, C. P. (2021). Experiences of health care discrimination among transgender and gender nonconforming people of color: A latent class analysis. *Psychology of Sexual Orientation and Gender Diversity*. Advance online publication. <https://doi.org/10.1037/sgd0000479>
- Almazan, A. N., & Keuroghlian, A. S. (2021). Association between gender-affirming surgeries and mental health outcomes. *JAMA Surgery*, 156(7), 611–618. <https://doi.org/10.1001/jamasurg.2021.0952>
- Baker, K. E., Wilson, L. M., Sharma, R., Dukhanin, V., McArthur, K., & Robinson, K. A. (2021). Hormone therapy, mental health, and quality of life among transgender people: A systematic review. *Journal of the Endocrine Society*, 5(4), Article bvab011. <https://doi.org/10.1210/je-nds0/bvab011>
- Carvalho Aguiar Melo, M., & de Sousa Soares, D. (2020). Impact of social distancing on mental health during the COVID-19 pandemic: An urgent discussion. *International Journal of Social Psychiatry*, 66(6), 625–626. <https://doi.org/10.1177/0020764020927047>
- Center for Connected Health Policy. (2021). *CCHP*. <https://www.cchpca.org/topic/originating-site/>
- Chatterjee, S., Biswas, P., & Guria, R. T. (2020). LGBTQ care at the time of COVID-19. *Diabetes & Metabolic Syndrome*, 14(6), 1757–1758. <https://doi.org/10.1016/j.dsx.2020.09.001>
- Clatworthy, J., Hinds, J., & Camic, P. M. (2013). Gardening as a mental health intervention: A review. *Mental Health Review Journal*, 18(4), 214–225. <https://doi.org/10.1108/MHRJ-02-2013-0007>
- Connolly, D., & Gilchrist, G. (2020). Prevalence and correlates of substance use among transgender adults: A systematic review. *Addictive Behaviors*, 111, Article 106544. <https://doi.org/10.1016/j.addbeh.2020.106544>
- Corbin, J., & Strauss, A. (2014). *Basics of qualitative research: Techniques and procedures for developing grounded theory*. SAGE.
- Czeisler, M. É., Marynak, K., Clarke, K. E. N., Salah, Z., Shakya, I., Thierry, J. M., Ali, N., McMillan, H., Wiley, J. F., Weaver, M. D., Czeisler, C. A., Rajaratnam, S. M. W., & Howard, M. E. (2020). Delay or avoidance of medical care because of COVID-19-related concerns—United States, June 2020. *Morbidity and Mortality Weekly Report*, 69(36), 1250–1257. <https://doi.org/10.15585/mmwr.mm6936a4>
- The Federation of State Medical Boards. (2021). *U.S. states and territories modifying requirements for telehealth in response to COVID-19*. <https://www.fsmb.org/siteassets/advocacy/pdf/states-waiving-licensure-requirements-for-telehealth-in-response-to-covid-19.pdf>
- Feldman, J. L., Luhur, W. E., Herman, J. L., Poteat, T., & Meyer, I. H. (2021). Health and health care access in the us transgender population health (transpop) survey. *Andrology*, 9, 1707–1718. <https://doi.org/10.1111/andr.13052>
- Gomes, S. M., Jacob, M. C. M., Rocha, C., de Medeiros, M. F. A., Lyra, C. O., & Noro, L. R. A. (2021). Expanding the limits of sex: A systematic review concerning food and nutrition in transgender populations. *Public Health Nutrition*, 24(18), 6436–6449. <https://doi.org/10.1017/S1368980021001671>
- Goyal, M., Singh, S., Sibinga, E. M., Gould, N. F., Rowland-Seymour, A., Sharma, R., Berger, Z., Sleicher, D., Maron, D. D., & Shihab, H. M. (2014). Meditation programs for psychological stress and well-being: A systematic review and meta-analysis. *JAMA Internal Medicine*, 174(3), 357–368. <https://doi.org/10.1001/jamainternmed.2013.13018>
- Grov, C., Westmoreland, D. A., Carneiro, P. B., Stief, M., MacCrate, C., Mirzayi, C., Pantalone, D. W., Patel, V. V., & Nash, D. (2019). Recruiting vulnerable populations to participate in HIV prevention research: Findings from the together 5000 cohort study. *Annals of Epidemiology*, 35, 4–11. <https://doi.org/10.1016/j.annepidem.2019.05.003>

- Guss, C. E., Woolverton, G. A., Borus, J., Austin, S. B., Reisner, S. L., & Katz-Wise, S. L. (2019). Transgender adolescents' experiences in primary care: A qualitative study. *Journal of Adolescent Health, 65*(3), 344–349. <https://doi.org/10.1016/j.jadohealth.2019.03.009>
- Hsieh, N., & Shuster, S. M. (2021). Health and health care of sexual and gender minorities. *Journal of Health and Social Behavior, 62*(3), 318–333. <https://doi.org/10.1177/00221465211016436>
- Jarrett, B., Peitzmeier, S. M., Restar, A., Adamson, T., Howell, S., Baral, S., & Beckham, S. W. (2020). Gender-affirming care, mental health, and economic stability in the time of COVID-19: A global cross-sectional study of transgender and non-binary people. *PLoS One, 16*(7), e0254215. Advance online publication. <https://doi.org/10.1101/2020.11.02.20224709>
- Johnson, A. H., Hill, I., Beach-Ferrara, J., Rogers, B. A., & Bradford, A. (2019). Common barriers to healthcare for transgender people in the U.S. Southeast. *International Journal of Transgender Health, 21*(1), 70–78. <https://doi.org/10.1080/15532739.2019.1700203>
- Kcomt, L., Gorey, K. M., Barrett, B. J., & McCabe, S. E. (2020). Healthcare avoidance due to anticipated discrimination among transgender people: A call to create trans-affirmative environments. *SSM-Population Health, 11*, Article 100608. <https://doi.org/10.1016/j.ssmph.2020.100608>
- Kidd, J. D., Jackman, K. B., Barucco, R., Dworkin, J. D., Dolezal, C., Navalta, T. V., Belloir, J., & Bockting, W. O. (2021). Understanding the impact of the COVID-19 pandemic on the mental health of transgender and gender non-binary individuals engaged in a longitudinal cohort study. *Journal of Homosexuality, 68*(4), 592–611. <https://doi.org/10.1080/00918369.2020.1868185>
- Lock, L., Anderson, B., & Hill, B. J. (2021). Transgender care and the covid-19 pandemic: Exploring the initiation and continuation of transgender care in-person and through telehealth. *Transgender Health*. Advance online publication. <https://doi.org/10.1089/trgh.2020.0161>
- Moreland, A., Herlihy, C., Tynan, M. A., Sunshine, G., McCord, R. F., Hilton, C., Poovey, J., Werner, A. K., Jones, C. D., & Fulmer, E. B. (2020). Timing of state and territorial COVID-19 stay-at-home orders and changes in population movement—United States, March 1–May 31, 2020. *Morbidity and Mortality Weekly Report, 69*(35), 1198–1203. <https://doi.org/10.15585/mmwr.mm6935a2>
- Nash, D., Stief, M., MacCrate, C., Mirzayi, C., Patel, V. V., Hoover, D., Pantalone, D. W., Golub, S. A., Millett, G., D'Angelo, A., Westmoreland, D. A., & Grov, C. (2019). A web-based study of HIV prevention in the era of pre-exposure prophylaxis among vulnerable HIV-negative gay and bisexual men, transmen, and transwomen who have sex with men: Protocol for an observational cohort study. *JMIR Research Protocols, 8*(9), Article e13715. <https://doi.org/10.2196/13715>
- Nicol Turner Lee, J. K., & Roberts, J. (2020). *Removing regulatory barriers to telehealth before and after COVID-19*. <https://www.brookings.edu/research/removing-regulatory-barriers-to-telehealth-before-and-after-covid-19/>
- Phillips Ii, G., Felt, D., Ruprecht, M. M., Wang, X., Xu, J., Pérez-Bill, E., Bagnarol, R. M., Roth, J., Curry, C. W., & Beach, L. B. (2020). Addressing the disproportionate impacts of the COVID-19 pandemic on sexual and gender minority populations in the United States: Actions toward equity. *LGBT Health, 7*(6), 279–282. <https://doi.org/10.1089/lgbt.2020.0187>
- Pratt-Chapman, M. L., Murphy, J., Hines, D., Brazinskaite, R., Warren, A. R., & Radix, A. (2021). “When the pain is so acute or if I think that I’m going to die”: Health care seeking behaviors and experiences of transgender and gender diverse people in an urban area. *PLOS ONE, 16*(2), Article e0246883. <https://doi.org/10.1371/journal.pone.0246883>
- Samuels, E. A., Tape, C., Garber, N., Bowman, S., & Choo, E. K. (2018). “Sometimes you feel like the freak show”: A qualitative assessment of emergency care experiences among transgender and gender-nonconforming patients. *Annals of Emergency Medicine, 71*(2), 170–182.e171. <https://doi.org/10.1016/j.annemergmed.2017.05.002>
- Schneiberg, E. (2021, February 12). These are the states attempting to pass anti-trans health care bills. *Human Rights Campaign*. <https://www.hrc.org/news/these-are-the-states-attempting-to-pass-anti-trans-health-care-bills>
- Sequeira, G. M., Kidd, K. M., Coulter, R. W., Miller, E., Fortenberry, D., Garofalo, R., Richardson, L. P., & Ray, K. N. (2020). Transgender youths' perspectives on telehealth for delivery of gender-affirming care. *Journal of Adolescent Health, 68*(6), 1207–1210. <https://doi.org/10.1016/j.jadohealth.2020.08.028>
- Sequeira, G. M., Kidd, K. M., Rankine, J., Miller, E., Ray, K. N., Fortenberry, J. D., & Richardson, L. P. (2021). Gender-diverse youth's experiences and satisfaction with telemedicine for gender-affirming care during the COVID-19 pandemic. *Transgender Health*. Advance online publication. <https://doi.org/10.1089/trgh.2020.0148>
- Shachar, C., Engel, J., & Elwyn, G. (2020). Implications for telehealth in a postpandemic future: Regulatory and privacy issues. *Journal of the American Medical Association, 323*(23), 2375–2376. <https://doi.org/10.1001/jama.2020.7943>
- Shuster, S. M. (2016). Uncertain expertise and the limitations of clinical guidelines in transgender healthcare. *Journal of Health and Social Behavior, 57*(3), 319–332. <https://doi.org/10.1177/0022146516660343>
- Shuster, S. M. (2021). *Trans medicine: The emergence and practice of treating gender*. New York University Press.
- Snelgrove, J. W., Jasudavicius, A. M., Rowe, B. W., Head, E. M., & Bauer, G. R. (2012). “Completely out-at-sea” with “two-gender medicine”: A qualitative analysis of physician-side barriers to providing healthcare for transgender patients. *BMC Health Services Research, 12*(1), Article 110. <https://doi.org/10.1186/1472-6963-12-110>
- Stanton, A. M., Batchelder, A. W., Kirakosian, N., Scholl, J., King, D., Grasso, C., Potter, J., Mayer, K. H., & O’Cleirigh, C. (2021). Differences in mental health symptom severity and care engagement among transgender and gender

- diverse individuals: Findings from a large community health center. *PLOS ONE*, *16*(1), Article e0245872. <https://doi.org/10.1371/journal.pone.0245872>
- Stuckey, H. L., & Nobel, J. (2010). The connection between art, healing, and public health: A review of current literature. *American Journal of Public Health*, *100*(2), 254–263. <https://doi.org/10.2105/AJPH.2008.156497>
- Tyrrell, C. J., & Williams, K. N. (2020). The paradox of social distancing: Implications for older adults in the context of COVID-19. *Psychological Trauma*, *12*(S1), S214–S216. <https://doi.org/10.1037/tra0000845>
- van der Miesen, A. I., Raaijmakers, D., & van de Grift, T. C. (2020). “You have to wait a little longer”: Transgender (mental) health at risk as a consequence of deferring gender-affirming treatments during COVID-19. *Archives of Sexual Behavior*, *49*, 1395–1399. <https://doi.org/10.1007/s10508-020-01754-3>
- Xavier, J., Bradford, J., Hendricks, M., Safford, L., McKee, R., Martin, E., & Honnold, J. A. (2013). Transgender health care access in Virginia: A qualitative study. *International Journal of Transgenderism*, *14*(1), 3–17. <https://doi.org/10.1080/15532739.2013.689513>
- Zhou, X., Snoswell, C. L., Harding, L. E., Bambling, M., Edirippulige, S., Bai, X., & Smith, A. C. (2020). The role of telehealth in reducing the mental health burden from COVID-19. *Telemedicine and e-health*, *26*(4), 377–379. <https://doi.org/10.1089/tmj.2020.0068>
- Zwickl, S., Angus, L. M., Qi, A. W. F., Ginger, A., Eshin, K., Cook, T., Leemaqz, S. Y., Dowers, E., Zajac, J. D., & Cheung, A. S. (2021). The impact of the first three months of the COVID-19 pandemic on the Australian trans community. *International Journal of Transgender Health*, 1–11. Advance online publication. <https://doi.org/10.1080/26895269.2021.1890659>