Lived experiences of transgender and nonbinary people in the perioperative context: a qualitative study

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Abstract

Background: Transgender and nonbinary (TNB) people experience obstacles that create barriers to accessing health care, including stigmatization and health inequities. Our intention was to describe the lived experiences of TNB patients and identify potential gaps in the education of health care professionals.

Methods: We conducted a qualitative descriptive study influenced by phenomenology by interviewing with TNB adults who underwent surgery in Canada within the previous 5 years. We recruited participants using purposeful and snowball sampling via online social networking sites. Audio recordings were transcribed. Two authors coded the transcripts and derived the themes.

Results: We interviewed 21 participants, with a median interview duration of 49 minutes. Participants described positive and negative health care encounters that led to stress, confusion, and feelings of vulnerability. Major themes included having to justify their need for health care in the face of structural discrimination; fear and previous traumatic experiences; community as a source of support and information; and the impact of interactions with health care professionals.

Interpretation: Participants detailed barriers to accessing care, struggled to participate in shared decision-making, and desired trauma-informed care principles; they described strength in community and positive interactions with health care professionals, although barriers to accessing gender-affirming care often overshadowed other aspects of the perioperative experience. Additional research, increased education for health care professionals, and policy changes are necessary to improve access to competent care for TNB people.

Transgender and nonbinary (TNB) identities can be defined as when "gender identities and/or gender expressions are not what is typically expected for the sex to which they were assigned at birth" or are outside the binary of woman and man, respectively.[1] People who identify as TNB are more likely to delay or avoid seeking medical care because of fears and experiences of discrimination or mistreatment and lack of transgender-competent health care professionals.[2–5] They may also experience social, political, financial, and legal obstacles in accessing health care, further contributing to health inequities.[6] These obstacles are not exclusive to TNB adults. A systematic review of TNB youth detailed numerous barriers to accessing gender-affirming care — an umbrella term referring to all aspects of transgender-related health care, including both surgical and nonsurgical care — including long wait-lists, lack of qualified health care professionals, financial costs, discrimination, and lack of family support.[7]

A substantial knowledge gap persists among perioperative care professionals who care for transgender patients.[8–10] Throughout the United States and Canada, an increasing number of legislative and policy changes have further limited access to gender-affirming care.[11,12] Access to gender-affirming care is associated with improved mental health outcomes, including decreased suicidality.[13–16] To provide a safer health care environment for this at-risk population, the medical community must amplify transgender voices in efforts for inclusive perioperative care.

A growing body of literature addresses transgender-specific health needs, particularly in the context of primary care.[1,4,5,17–20] Although not all TNB people choose to transition medically with hormone therapy or gender-affirming surgery, all people have the potential to require non-gender-affirming surgery at some point. Makhoul and colleagues'[10] qualitative study characterized the experiences of transgender adults seeking gender-affirming surgery in the US, and Samuels and colleagues[21] described the experiences of transgender and gender-nonconforming patients in the emergency department setting. Both studies highlighted challenges and barriers in accessing health care and a need for increased education for health care professionals. However, Canadian studies that explore overall perioperative care, in addition to gender-affirming surgery, are needed. Many TNB communities have been underrepresented in the literature.[22] We sought to explore the lived experience of TNB patients in the perioperative context.

Methods

Study design

We conducted a qualitative descriptive study influenced by phenomenology to understand the lived experiences of TNB people in perioperative settings.[23–25] Using this approach, we relied on hearing from patients as they recalled their journeys through the perioperative period, and used these rich descriptions to explore and interpret their experiences. Phenomenology seeks to describe the overall essence of the experience and participants' interpretation of the events.[26] Our methodology allowed for detailed exploration of the perioperative experience, grounded in the worldview, vocabulary, and context-specific experiences of the participants themselves.

We purposefully assembled a research team comprising people with diverse lived experiences, including those self-identifying with a range of gender identities (cisgender, transgender, and nonbinary) and sexual orientations (queer and heterosexual), as well as those at various career stages (early, mid, and senior) and from various professions (anesthesiologists, researchers, and educators). Some authors hold postgraduate degrees and have expertise in qualitative research of this nature. Members of the team who collected and analyzed the data self-identify as queer, transgender, nonbinary, or a combination thereof. Throughout the research process, these authors remained reflexive in how their varied identities, experiences, power dynamics, societal oppression, and privilege may have influenced their interactions with participants, members of the research team, and all aspects of the research cycle.

We referred to the Canadian Professional Association for Transgender Health's guidelines and the Consolidated Criteria for Reporting Qualitative Research checklist to help guide the development and reporting of this study (Appendix 1, available at www.cmaj.ca/lookup/doi/10.1503/cmaj.240061/tab-related-content).[30,31]

Participant recruitment

Using purposive sampling, we recruited participants using flyers that were distributed via online transgender networks and websites, social media (Facebook, Instagram, and Twitter), physician offices, and national support or resource groups. These flyers were forwarded and reposted for a snowballing effect to increase our reach throughout recruitment efforts. Our choice to employ purposive and snowball sampling was intended to focus recruitment efforts to a specific population that could provide meaningful and relevant data for our study. We included people who identified as transgender or nonbinary, were at least 18 years of age, and spoke English; they must have undergone any surgical procedure (performed in an operating room in the presence of anesthesia providers) in Canada in the previous 5 years. We chose a period of 5 years to allow participants to sufficiently recall their experiences. One of the authors (D.B.) screened for eligibility and interviewed all participants. Participants were not eligible if they did not identify as transgender or nonbinary at the time of the perioperative experience. For our study, we defined the perioperative period as beginning at the time a decision was made to undergo surgery until the time of discharge postoperatively. We provided participants with a $25 gift certificate after they completed their interviews.

Data collection

We conducted 1-on-1, in-depth, semistructured interviews between October 2021 and June 2022. We audio-recorded interviews (Olympus Digital Voice Recorder, WS-852), conducted over Zoom, and had them subsequently anonymized and transcribed verbatim by an independent professional transcriptionist. We stored audio recordings in a secure drive according to our institutional policies. Participants completed 2 interviews to encourage reflection and increased depth during the second interview, as well as to minimize fatigue during a single interview session. Participants were in a private environment of their choice during the interviews. We developed a brief interview guide that included questions about participants' identities and background, surgical experiences, from the decision to have surgery through to recovery, and thoughts and feelings throughout the perioperative process (Appendix 2, available at www.cmaj.ca/lookup/doi/10.1503/cmaj.240061/tab-related-content). Before any participant interviews took place, we piloted the interview guide with members of the research team (D.B., L.T.J.). All interviews were conducted by D.B., who shared their role within the research team, their gender identity, and the team's motivations for this study with participants. Participants did not have a pre-existing relationship with the interviewer. Participant recruitment and data collection continued until no new themes were being identified within the data set. We gave participants the opportunity to review their transcripts for accuracy and as a form of member checking.

Given the potentially sensitive nature of the topics discussed, we employed several measures to protect participants' well-being. The electronic information and consent form included a list of mental health resources. We allowed participants to have a support person present during the interviews, although none chose to do so. The interviewer was instructed to stop the interview and offer support if participants appeared distressed. They encouraged participants to contact any member of the research team if they experienced any distress after the interview.

Data analysis

We engaged in an iterative and inductive process of thematic analysis, as described by Braun and Clarke.[27] First, 2 team members (H.M., L.T.J.) familiarized themselves with the data by listening to the audio or reading the transcribed interviews independently. They took handwritten notes of connections, notable phrases or statements, and trends. Next, they highlighted and described statements that addressed our research question. In the next phase of analysis, they coded these highlighted statements into short phrases or single words using NVivo qualitative data analysis software (version 14, QSR International), and grouped them into preliminary themes. Members of the research team (D.B., H.M., L.T.J.) met throughout the analysis phase to compare codes and finalize themes. Any differences in interpretation were resolved through discussion until agreement was achieved.

We followed Lincoln and Guba's criteria for trustworthiness.[28] The analysis process included investigator triangulation of the data, whereby 2 investigators collaborated in coding, analyzing, and interpreting the data, with prolonged engagement (i.e., completing a literature review at the beginning of study development, having personal connections to or membership within TNB communities, repeating interviews, and immersing themselves in the data over a period of months) and persistent observation of the data (i.e., listening to the audio recordings, reading and rereading the transcripts, and analyzing, theorizing, and revising themes throughout).[28,29] Verbatim participant language was used throughout. We then reanalyzed transcripts to ensure themes accurately reflected data and to code any data overlooked during the initial analysis.

Ethics approval

We obtained institutional ethics approval from IWK Health.

Results

We interviewed 21 participants. Participant characteristics are listed in Table 1. Eighteen participants completed 2 interviews. Two people completed a single interview before withdrawing, citing personal reasons, but consented to keep their initial interview in the data set. One person had 3 interviews because of technical difficulties that caused sufficient delay to require rescheduling. Interviews ranged from 18 to 91 minutes, with a median interview duration of 49 minutes.

A coding tree is presented in Appendix 3, available at www.cmaj.ca/lookup/doi/10.1503/cmaj.240061/tab-related-content. We compiled codes into 4 themes (Table 2) Although many participant interviews recounted positive health care experiences, an additional overarching theme was the stress, confusion, and vulnerability that participants felt in navigating a perioperative environment in which they did not seem to fit. Although all participants experienced barriers in their surgical journeys, many appreciated — or were surprised by — the levels of individual and community support in some perioperative spaces.

Table 1: Participant characteristics

Characteristic	No. of participants *n* = 21
Gender identity*	
Transgender woman	3
Transgender man	11
Nonbinary/genderqueer	7
Surgery type†	
Gender-affirming top surgery (i.e., chest masculinization or feminization, mastectomy)	13
Gender-affirming bottom surgery (i.e., surgery relating to external genitalia or reproductive anatomy)	8
Unrelated to gender identity (i.e., orthopedic surgery, renal transplant, cesarean delivery)	3
Province of residence	
Alberta	2
British Columbia	1
Manitoba	1
New Brunswick	3
Nova Scotia	12
Ontario	1
Saskatchewan	1
Age, yr	
18–29	9
30–39	9
≥ 40	3
Race*	
White	17
South Asian or Southeast Asian	2
Indigenous	1
Mixed race	1

*The language used for gender identity and race detail the participants' own descriptions and self-identification. Some participants did not include the descriptor "trans" when describing their gender identity, but instead used single words of woman or female or of man, male, or transmasculine. These are included within the categories of "transgender woman" and "transgender man," respectively.
†Several participants shared experiences of more than 1 surgery and may be counted in multiple categories.

Justifying the need for health care in the face of structural discrimination

Barriers to accessing gender-affirming care were described by all participants. Participants described numerous scenarios where they felt burdened to educate health care professionals about trans health needs (Table 2, quotes 1 and 2). Many participants described feeling as though they had to be their own case worker to navigate a complex system with little to no external guidance (Table 2, quotes 3 and 4). One participant remarked, "It wasn't that the steps were overly difficult. Half the battle was figuring out what the steps were" (participant 18, woman/female and transgender, she/her).

Table 2 (part 1 of 2): Selected quotes related to themes*

Theme	Quote
Justifying need for health care in the face of structural discrimination	
	1. "I started to try to talk to my GP, my family doctor at the time, about starting HRT. And she was pretty resistant because she didn't know anything about it. Which I tried to push, you know, [local health organization] offers a free training like for doctors so that it's not bottlenecked through their doctors. And she wasn't really interested." — Participant 11, trans man (he/him)
	2. "Nobody is the expert of my body… I'm the one who lives it every day. And my voice is not centred in care. And that's a problem." — Participant 13, trans/nonbinary person (they/them)
	3. "It's like a burden on us to have to continuously put in that work when we do want to just be able to rely on our providers and our care team." — Participant 9, trans man (he/him)
	4. "Got approval for funding sometime later in the year. And then it's only valid for 2 years. So you have to get into surgery in [city] within this 2-year timeframe." — Participant 4, male (he/him)
	5. "Then you get charged to ask your doctor to fill out the forms. And sometimes it's $100, sometimes it's $200, depending on how many pages." — Participant 7, male (he/him)
	6. "They'll pay for [genital surgery], right. You have to do that electrolysis first. And that's thousands of dollars." — Participant 15, male (he/him)
	7. "I had my gender changed on my card. So they had struggles with that because the [electronic medical record]. The card says X, and there's no X on the [electronic medical record]." — Participant 14, genderqueer (they/them)
	8. "It was definitely difficult showing up in a women's ward as someone who's masc-presenting." — Participant 5, queer/nonbinary (he/they)
	9. "I don't know if it was just the fact that I didn't get to have that in-person consult with the team, or if it was because it was a bit of a language barrier thing, but… I remember asking a nurse something about risk of hematoma or what I should look out for. And that word did not translate well, and she kind of just brushed it off." — Participant 2, trans man (he/him)
	10. "Nobody was speaking to me. Everyone was speaking in French. And I can't speak French. I have nothing against Francophones. But you're laying on the table, and you're getting stuck 6, 7, 8, 9 times, and you're like, 'What the fuck is going on?' And nobody's talking to you." — Participant 13, trans/nonbinary person (they/them)
	11. "Because I'm trans, I had to go through that 2-letter process… that whole interview was nothing but invalidation of my identity and a complete ignorance to trans and non-binary folk." — Participant 3, transmasculine (he/him)
	12. "And [the mental health assessment to access gender-affirming surgery is] just a gruelling… it's just a very 'prove you're trans', type of thing." — Participant 20, trans man (he/him)
Fear and previous traumatic experiences	
	13. "I just have to deal with whoever I get, and hope to God they're not transphobic." — Participant 5, queer/nonbinary (he/they)
	14. "On a broad kind of swatch of trans folks, many folks experience multiple forms of oppression. So why aren't you operating from a trauma-informed lens? That doesn't happen. And part of the reason why that is, is because it's a shock. You're literally moved like you're on a conveyor belt from station to station." — Participant 13, trans/nonbinary person (they/them)
	15. "I feel like entering any type of medical setting, I'm always just a little bit on edge." — Participant 20, trans man (he/him)
	16. "And I hate say this, but… you don't want to correct anyone too hard because you need their help." — Participant 15, male (he/him)
	17. "In terms of informed consent, I'm not sure that there is such a thing when you want something so desperately that you really can't make [any other] decision." — Participant 8, trans man (they/he)
Community as a source of support and information	
	18. "It was so awesome to see other people who looked like me sitting in the waiting room. Representation is everything." — Participant 15, male (he/him)
	19. "I also just really liked being in a space with a bunch of trans people where, like, everyone was trans. And you could just be exposed to people like that, and feel in community, in little ways." — Participant 19, trans woman, transfeminine (she/her)
	20. "It all just felt, like, very normal. Like not there's something different about me or that anyone was treating me at all differently… it was just: you're a person, you're here for a procedure, and we're going to do it." — Participant 1, female (she/her)
	21. "I had to live with my parents for the first week after surgery. My dad wanted nothing to do with me during that week, and wouldn't even be around me or wouldn't really even look at me. My mom did help take care of me and get me what I need and made sure I was doing well. But it was tough because the surgery was really, really exciting for me and I just wanted to celebrate it." — Participant 9, trans man (he/him)
	22. "There isn't really a focus in general on mental health when it comes to giving birth and stuff. But what is there is so gendered that I would then be triggered in a different way if I tried to approach that. Because a lot of women will talk about this stuff together." — Participant 10, nonbinary transmasc (he/they)

Table 2 (part 2 of 2): Selected quotes related to themes*

Theme	Quote
Impact of interactions with health care professionals	
	23. "Do you want to lose time getting health care because you don't want to see a transphobic doctor? And you just put up with it? …It's really horrible." — Participant 14, genderqueer (they/them)
	24. "I was misgendered the whole time in front of a whole room of people. I know my body was being stared at… I felt like I was that sideshow attraction, and I didn't like it." — Participant 3, transmasculine (he/him)
	25. "It almost feels like the wait time is purposeful to some extent, where they want to give you that time to second guess yourself." — Participant 12, trans man (he/him)
	26. "In terms of trust within providers… referrals getting lost, things taking a long time, I feel a little bit jaded with the health care system." — Participant 9, trans man (he/him)
	27. "I'm always nervous about doctors…like how offensive will you be today? But she was really lovely." — Participant 20, trans man (he/him)
	28. "Not uncommon to have people react in ways that make you acutely aware that they're having some kind of an emotional reaction that is distracting to them taking care of you for the reason that you're there." — Participant 8, trans man (they/he)
	29. "I know what it's like to go in seeking help, feeling really scared and vulnerable, and then you meet some person who asks you if you have feeling in your penis…is that really a pertinent medical question to ask right now? Is that relevant to the treatment that I need? Or is that just your curiosity? Like put a lid on it. You can think that, but you don't have to say it." — Participant 8, trans man (they/he)
	30. "I never even thought about how affirming that would be to have someone say, 'I'm sorry that this is being gatekept from you. You should be able to just go do this.'" — Participant 10, nonbinary transmasc (he/they)
	31. "The room I ended up in was the room right across from, like, the nurses station, like meeting room for the staff. And so every morning I would hear them be like, 'The patient in a room whatever goes by [name] and uses they/them pronouns. If anyone has questions about that, we can practise here. You need to get this right.' And it was just so nice that people not only did it to my face, but they were doing it out of ear shot." — Participant 17, genderqueer (they/them)
	32. "Knowing that someone did that surgery on me because they wanted to makes me feel a lot better about my scars that I have. It makes me feel proud to have them because I was …excited, and the provider was excited." — Participant 9, trans man (he/him)

Note: GP = general practitioner, HRT = hormone replacement therapy.
*Gender identities are presented using the participants' own language.

Financial barriers further complicated access to gender-affirming surgery (Table 2, quotes 5 and 6). Some participants described paying out of pocket for private psychologists to meet criteria within specific timeframes. Electrolysis, which can cost thousands of dollars, was a strict requirement for some gender-affirming surgery procedures and was not always covered. Provincial health insurance failed to cover travel or accommodation costs for out-of-province surgeries. Further examples of structural discrimination included inaccurate options for gender markers within electronic medical records and gendered health care environments (e.g., describing obstetrics and gynecology services as "women's health") (Table 2, quotes 7 and 8). One of the hospitals specializing in gender-affirming surgery is in Quebec, so some English-speaking participants felt language presented an additional barrier (Table 2, quotes 9 and 10).

When faced with such challenges, participants described health care professionals as gatekeepers, which made them feel as though they had to fight for validation of their very existence (Table 2, quotes 11 and 12). One participant remarked about gender-affirming care, "It's more than cosmetics; it's our lives. It's who we are" (participant 6, male, he/him).

Fear and previous traumatic experiences

Most participants recounted an element of fear relating to interactions with the health care system. For some, this fear was the direct result of previous traumatic experiences both in health care and in other areas of life. For others, this fear related to knowledge of other TNB people who had experienced trauma or discrimination in health care settings. Fear affected various aspects of the perioperative period, with some participants describing feelings of heightened vulnerability and expressing a desire for a trauma-informed approach in the perioperative setting (Table 2, quotes 13–15). Some participants felt unable to participate fully in shared decision-making, particularly for gender-affirming surgery, for fear of being denied access to care (Table 2, quotes 16 and 17). Many experiences in the perioperative setting were described as impersonal or dehumanizing, with some participants feeling like "test subjects" (participant 5, queer/nonbinary, he/they) and others likening their experience in the operating room to feeling as though they were an object on a "conveyor belt" that was not designed for them (participant 13, trans/nonbinary person, they/them).

Community as a source of support and information

When detailing the frustration of accessing gender-affirming care and gender-affirming surgery, many participants spoke about the support and information they gained through connecting with other TNB people in person or through online networks. Participants who underwent surgery at hospitals that specialized in gender-affirming surgery reflected on the validation of meeting

many other TNB patients "going through the same thing" (participant 2, trans man, he/him) and valued the ability to discuss concerns or ask questions (Table 2, quotes 18–20). Those who underwent surgery at other hospitals did not have the same exposure to other TNB patients and did not describe the same sense of community support (Table 2, quotes 21 and 22).

Impact of interactions with health care professionals

Participants described encounters ranging from ignorance to ridicule (Table 2, quotes 23 and 24), as well as feeling their health care professionals "don't have the interest or confidence to take on" their health care (participant 4, male, he/him). Several participants relayed frustration with lost referrals or unreturned phone calls from physicians' offices, perceiving that their gender was the reason for these mistakes (Table 2, quotes 25 and 26). Often, participants described an expectation that health care professionals would be transphobic (intentionally or not), as evidenced by their surprise when they encountered health care professionals who were welcoming and affirming of their identity (Table 2, quote 27). This high emotional investment, combined with the previously mentioned barriers, led to increased anxiety in health care settings. In addition to misgendering, participants described mistreatment by health care professionals who dismissed health concerns and inappropriately fixated on aspects of their transition or gender identity (e.g., questioning patients about aspects of their health unrelated to their presenting concern; Table 2, quotes 28 and 29).

Transparent communication and a willingness to learn, especially without any expectation for the participant to educate the health care professional, contributed a feeling of safety and improved trust between participants and health care professionals. Examples of health care professionals acting as allies included acknowledgement and commiseration regarding the challenges involved in accessing gender-affirming care or gender-affirming surgery, and correcting other health care professionals who misgendered participants, especially when the provider was unaware that the participant could hear their conversation (Table 2, quotes 30 and 31). Participants appreciated when perioperative care professionals took the time to explicitly acknowledge the emotional importance of gender-affirming care and vulnerability they often experienced. Perioperative care professionals who displayed genuine enthusiasm and excitement when participants were undergoing gender-affirming surgery made an especially strong impression (Table 2, quote 32). These positive interactions led participants to be more confident in advocating for their own or community needs around gender-affirming care.

Interpretation

Our findings illustrate challenges to address in both the perioperative setting and the health care system overall. For participants in the study, the stress of negotiating presurgical bureaucracy often stood in sharp contrast to the positive feelings they experienced when deciding to seek gender-affirming surgery. Participants described the need to self-advocate when interacting with health care professionals who had a lack of experience with or negative attitude toward TNB people. All the major themes described had an underlying sentiment of a struggle to fit within a system that was not designed for TNB people. In the perioperative context, patients of any background may experience some degree of anxiety, fear, or frustration. However, a community that has been historically marginalized is likely to experience additional stress. As previously mentioned, TNB people experience stigmatization, discrimination, and marginalization within the hospital environment and the broader societal context. They often experience trauma as a result.[3,4,6]

Trauma-informed care describes an approach that "realizes the widespread impact of trauma and understands potential paths for recovery; recognizes the signs and symptoms of trauma in clients, families, staff, and others involved with the system; and responds by fully integrating knowledge about trauma into policies, procedures, and practices, and seeks to actively resist re-traumatization."[32] A trauma-informed approach follows 6 key principles, namely safety; trustworthiness and transparency; peer support; collaboration and mutuality; empowerment, voice, and choice; and cultural, historical, and gender issues.[32] The principles of trauma-informed care are widely applicable throughout health care, including the perioperative context, where people are inherently in a state of vulnerability. Participants relayed traumatic experiences and some explicitly stated a desire for a more widespread trauma-informed approach within health care systems.

Although our study was focused on the perioperative period, all participants described barriers in accessing gender-affirming care before the perioperative period, including surgical experiences that were unrelated to gender. Makhoul and colleagues[10] highlighted the importance of gender-affirming surgery as a major life event with unique barriers that must be addressed, including education for health care professionals, creation of safer care environments (i.e., multidisciplinary gender-affirming clinics), and policy changes. Chang and colleagues[33] described the impact of misgendering on the perioperative experience for patients after gender-affirming surgery. Although these studies were in the US — with a different health care system, legal system, and political landscape — we found similarities. Our findings highlight the need for health care professionals to receive education specific to working with TNB patients and providing safe and competent gender-affirming care throughout the perioperative context.

Interprovincial differences in requirements to access gender-affirming care can create challenges for TNB people who may move in the midst of receiving gender-affirming care. Moving to a new province typically necessitates restarting a lengthy process. The World Professional Association for Transgender Health (WPATH) updated their standards of care in 2022 and now suggests only a single opinion from a health care professional before initiation of gender-affirming medical and surgical care in adults.[1] They suggest a duration of 6 months of hormone therapy before gonadectomy, while acknowledging that "hormones are not clinically indicated for [TNB] adults who do not want them."[1] As of January 2024, only 3 provinces or territories in Canada have current and easily accessible websites outlining requirements for accessing gender-affirming surgery that are up to date with the current WPATH standards of care (Table 3).

Table 3 (part 1 of 2): Provincial requirements for gender-affirming surgeries for adults

Province or territory	Provincially insured procedures	No. of required assessments	Provider who can perform assessment	Preoperative hormone therapy requirements	Preoperative social transition requirements	Aligned with WPATH version 8
Alberta*	Phalloplasty, metoidioplasty, vaginoplasty, breast augmentation, mastectomy	1 for chest surgery; 2 for genital surgery	"Physicians with extensive training or clinical experience in assessing and managing the mental health needs of the transgender population"	1 yr; document refers to WPATH 2001	1 yr of "real-life experience"; document refers to WPATH 2001	No
British Columbia†	Breast augmentation, chest reduction, orchiectomy, hysterectomy, bilateral salpingo-oophorectomy, vaginoplasty, vulvoplasty, erectile tissue release, metoidioplasty, phalloplasty	1	"A clinician who meets the qualifications and competencies outlined in the WPATH Standards of Care 8", but for vaginoplasty, vulvoplasty, erectile tissue release, metoidioplasty, and phalloplasty, the single referral must be from TransCare BC's list of approved clinicians for genital surgery	18 mo before breast augmentation (exemption possible); 6 mo before genital surgery (exemption possible)	No	Yes
Manitoba‡	Chest augmentation, chest reduction, chest masculinization, orchiectomy, hysterectomy with or without oophorectomy, vaginoplasty, phalloplasty, metoidioplasty	2	1 letter from a provider on their approved list, plus confirmation of gender dysphoria diagnosis from a mental health professional	Unavailable	Unavailable	No
New Brunswick§	Mastectomy with chest masculinization, hysterectomy, salpingo-oophorectomy, vaginoplasty, vaginectomy, penectomy, orchiectomy, metoidioplasty, phalloplasty, erectile and testicular implants	1 for chest surgery; 2 for genital surgery	Gender-confirming surgery–trained physicians, nurse practitioners, psychologists, specialized registered nurses, and registered social workers with a master's degree. If 2 letters needed, the second must be from a physician, nurse practitioner, or psychologist.	1 yr before genital surgery (exemption possible)	1 yr before genital surgery (exemption possible)	No
Newfoundland & Labrador¶	Breast augmentation, mastectomy with chest masculinization (excluding implants or liposuction), hysterectomy, orchiectomy, salpingo-oophorectomy, vaginoplasty, metoidioplasty, phalloplasty	1 for chest surgery; 2 for genital surgery	Health care professional meeting criteria in WPATH version 7, list of contacts is provided	1 yr before breast augmentation or genital surgery	1 yr before genital surgery	No
Northwest Territories**	Breast augmentation, mastectomy, vaginoplasty, metoidioplasty, phalloplasty, clitoral release, hysterectomy	1 for chest surgery; 2 for genital surgery	Clinical expert (primary care practitioner, medical practitioner, nurse practitioner, psychologist, or registered social worker)	1 yr before breast surgery (not required); 1 yr before genital surgery	1 yr before genital surgery	No
Nova Scotia††	Breast augmentation, breast or chest reduction, chest masculinization or mastectomy, hysterectomy, oophorectomy, phalloplasty, metoidioplasty, vaginoplasty	1	Health care professional meeting criteria in WPATH version 8	6 mo (not required)	No	Yes
Nunavut‡‡	Unavailable	Unavailable	Unavailable	Unavailable	Unavailable	Unsure

Table 3 (part 2 of 2): Provincial requirements for gender-affirming surgeries for adults

Province or territory	Provincially insured procedures	No. of required assessments	Provider who can perform assessment	Preoperative hormone therapy requirements	Preoperative social transition requirements	Aligned with WPATH version 8
Ontario§§	Genital and chest	1 for chest surgery; 2 for genital surgery	A provider trained in the assessment, diagnosis, and treatment of gender dysphoria; references WPATH (no version indicated)	1 yr before breast augmentation or genital surgery	1 yr before genital surgery	No
Prince Edward Island¶¶	Mastectomy with chest masculinization, chest feminization, hysterectomy or bilateral oophorectomy, clitoral release, erectile or testicular implant, metoidioplasty, phalloplasty, scrotoplasty, vaginectomy, clitoroplasty, labiaplasty, orchiectomy, penectomy, vaginoplasty, facial surgery, hair removal and hair replacement therapy as clinically indicated	1	Physician or nurse practitioner (does not have to be specifically trained but must have consulted with someone who is); references WPATH version 8	6 mo (not required)	No	Yes
Quebec***	Unavailable	Unavailable	At least 1 evaluation by a psychiatrist or clinical psychologist	Unavailable	Unavailable	No
Saskatchewan†††	Unavailable	Unavailable	Psychiatrist must initiate the referral or assessment process	Unavailable	Unavailable	No
Yukon‡‡‡	Breast augmentation or construction, chest construction, hysterectomy with bilateral salpingo-oophorectomy, metoidioplasty, orchiectomy, penectomy, phalloplasty, vaginoplasty, tracheal shave, facial feminization, body contouring, vocal surgery	Unavailable	Health care practitioner	Unavailable	Unavailable	Unsure

Note: WPATH = World Professional Association for Transgender Health.
*https://www.albertahealthservices.ca/dvi/Page15676.aspx ; https://open.alberta.ca/dataset/edc7a76a-df4c-4596-9a93-e5d16be1c22a/resource/2e4db6e9-b9b5-4a9e-9451-6e0265fe872c/download/ahcip-bulletin-med-166a-2012.pdf
†http://www.phsa.ca/transcarebc/surgery/how-to-get-surgery
‡https://klinic.mb.ca/health-care/transhealthklinic/health-care-providers/#:~:text=Manitoba%20Health%20Requirements,Health%20Professional%20to%20confirm%20GD
§https://www2.gnb.ca/content/dam/gnb/Departments/h-s/pdf/en/Patients/GenderConfirmingSurgeryPriorApprovalRequest.pdf
¶https://www.gov.nl.ca/hcs/files/Request-for-Prior-Approval-Form.pdf
**https://www.hss.gov.nt.ca/professionals/sites/professionals/files/resources/health-care-transgender-non-binary-gender-nonconforming-people-guidelines-nwt.pdf
††https://novascotia.ca/dhw/gender-affirming-care/gender-affirming-care-policy.pdf
‡‡Unavailable.
§§https://www.ontario.ca/page/gender-confirming-surgery and https://forms.mgcs.gov.on.ca/en/dataset/5041-77
¶¶https://www.princeedwardisland.ca/sites/default/files/forms/gender_confirming_surgery_prior_approval_request_form.pdf
***https://educaloi.qc.ca/en/capsules/are-sex-transitions-covered-by-public-health-insurance/
†††https://www.saskatchewan.ca/residents/health/accessing-health-care-services/gender-identity-gender-diversity-and-transgender-support
‡‡‡https://yukon.ca/sites/yukon.ca/files/hss/hss-b14-gender-affirming-care-surgery-policy.pdf

Our data show gaps in Canada's health care systems, with TNB people reporting that they did not experience a safe environment. The WPATH suggests that "institutions involved in the training of health professionals develop competencies and learning objectives for transgender and gender diverse health within each of the competency areas for their specialty."[1] Our data support the development and inclusion of transgender health competencies at all levels of medical training. Along with

efforts to increase knowledge among health care professionals, policy changes should be implemented to increase access to transgender-competent care that aligns with the most current WPATH guidance for standards of care. This requires advocacy at several levels, including provincial and federal legislation.

Limitations

We recruited participants who identify as TNB, so we may have inadvertently excluded people who are not cisgender but do not identify as transgender or nonbinary. Although the word "transgender" can be seen as an umbrella term that includes all gender identities other than cisgender, the choice of language in this realm can be deeply personal and it may not be possible to use terminology that is universally agreed upon. Despite our attempts to recruit participants from diverse backgrounds and perspectives, most participants were English-speaking, White transgender men from Nova Scotia. Snowball sampling inherently has the potential to reach people who share similar characteristics, which could contribute to this relative lack of diversity. Much of our recruitment was achieved via Internet-based social media, possibly excluding participants without access. Most surgical experiences described by participants involved gender-affirming surgery, which may be a unique perioperative experience from instances when the surgery in question is unrelated to gender. The barriers to accessing gender-affirming care and gender-affirming surgery overshadowed participants' experiences to the extent that recollection and discussion of the remainder of the perioperative period were more limited. Conducting video interviews, instead of in-person interviews, represents another limitation, as nonverbal cues may be missed in this format. However, given the cross-country recruitment of our study and the ongoing pandemic, in-person interviews were not feasible.

Conclusion

Barriers to accessing safe, inclusive perioperative care for TNB people in Canada persist. Participants faced challenges in accessing gender-affirming care, regardless of whether they were ultimately seeking gender-affirming surgery, which overshadowed much of their overall experiences with health care systems. They often self-managed their care and educated their providers in health care situations, including the perioperative environment. Our data support the need for more in-depth and nuanced discussions surrounding shared decision-making, and consideration of potential effects of past traumas, instances of invalidation, or negative interactions within health care. Trauma-informed care principles may be especially valuable in TNB care. Future research on the development of role-specific educational content and competencies should incorporate an explanation of the various roles within the perioperative team and involve direct input from TNB community members.

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