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Gender-based analysis of medical and aesthetic intervention needs and priorities of trans and non-binary people in Québec, Canada

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ABSTRACT

This study explored gender-specific needs and priorities in gender-affirming care among trans and non-binary (TNB) people in Québec, Canada. A cross-sectional study was conducted using a questionnaire distributed through organizations working with TNB people. This questionnaire included questions on four categories of gender-affirming interventions (hormonal interventions, facial interventions, upper/lower body interventions, and genital interventions) and open-ended questions. Descriptive bivariate analyses and chi-square tests were performed to describe participants ($n=223$) and identify significant group differences. Participants identified as transmasculine (30.9%), transfeminine (37.7%), or non-binary (31.4%), with the greatest proportion (40.8%) aged between 26 and 40 years. Hormonal interventions represented the greatest need (95.5%) and the highest priority for all genders. Gendered differences were identified for all intervention needs, particularly for upper- and lower-body interventions (100% transmasculine, 63.1% transfeminine, 82.9% non-binary; $p<0.001$) and facial interventions (18.8% transmasculine, 97.6% transfeminine, 41.4% non-binary; $p<0.001$). Our study shows significant gendered differences in needs and priorities for gender-affirming interventions among TNB people in Québec. Our findings highlight the importance of inclusive, gender-responsive healthcare, and support broadening public coverage of gender-affirming interventions to ensure equitable access to care for TNB people.

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KEYWORDS

Trans and non-binary people; gender-affirming interventions; gendered differences

Introduction

In recent years, many medias have reported on gender-affirming care, especially in the case of trans and non-binary (TNB) youth. Particular attention is paid to hormone therapy, while many other interventions can help reduce the distress experienced by TNB populations. In Canada, TNB people represent approximately 0.33% of the population, a potentially underestimated proportion (Government of Canada, 2022; Zhang et al., 2020). Among this diverse population, many experience gender incongruence, i.e. a marked incongruence between gender identity and the sex assigned at birth. Gender incongruence can have significant negative impacts, both individually and socially (American Psychiatric Association, 2013; World Health Organization, 2023). Indeed, TNB people are at a greater risk of experiencing mental health issues, including suicidal thoughts (31%) and suicide attempts (6%) (Trans PULSE Canada, 2020). Moreover, TNB individuals are more likely to perceive their mental health as fair or poor (56%) than the rest of the population (8.9%) (Gouvernement du Canada, 2017; Trans PULSE Canada, 2020). Adversities are often explained by minority stress, i.e. identifying to a gender minority can lead to stigmatization and stress, resulting in mental and physical challenges (DuBois & Juster, 2022; Hatchel et al., 2019; Hidalgo & Chen, 2019). Therefore, the mental health issues experienced by TNB people are largely caused by societal factors such as a lack of social acceptance, rather than being intrinsically linked to the person.

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Despite these important issues, the health needs of TNB people remain largely unmet (45%) compared with the rest of the population (4%) (Trans PULSE Canada, 2020). Although the health challenges faced by TNB individuals are complex, addressing their needs through tailored interventions can contribute to significant improvements in their health. For example, having access to gender-affirming medical interventions, such as hormonal therapy or surgery, can lead to improvements in the mental health of TNB people (Almazan & Keuroghlian, 2021; Coleman et al., 2022; Kuper et al., 2020; Pullen Sansfaçon et al., 2019; Turban et al., 2020). Gender-affirming medical interventions can be aesthetic or physiological and can modify a person's physical characteristics. However, access to care remains poorly adapted to the reality of TNB people. In fact, recent data in Canada shows that 44% of trans women (vs. 13% of cisgender women), 48% of trans men (vs. 4% of cisgender men), and 34% of non-binary people have experienced discrimination in the Canadian healthcare system in recent years (Government of Canada, 2023).

In 2023, the province of Québec published guidelines to promote the health and well-being of sexual and gender-diverse people in an attempt to better respond to their needs (Ministère de la Santé et des Services sociaux, 2023). Recognizing the discrimination experienced by LGBTQ+ populations in Québec's healthcare system, the government has developed these guidelines to better equip healthcare professionals and provide more inclusive care. Yet, there is no precise information on the needs of TNB individuals for gender-affirming interventions supporting their transition, and it is difficult to estimate whether the care offered and covered is sufficient to meet them. Available data suggest that the needs for gender-affirming medical or aesthetic interventions are heterogeneous and vary by gender (Huismans et al., 2023; Kennis et al., 2022). In the province, several types of gender-affirming medical interventions are available, but only some are covered by provincial health insurance, such as hormonal treatments and a limited number of surgeries (Éducaloi, 2024; Table 1 for more details). In Québec, puberty blockers are available from the onset of puberty, but TNB youth must be 16 years old for a mastectomy and 18 years old (the age of majority in Québec) for genital surgery.

Although the gender-specific needs for gender-affirming interventions are poorly documented, the impact of these interventions on TNB populations is significant. Gender-affirming interventions may have the potential to decrease symptoms of anxiety and depression, suicidal thoughts, and psychological distress while improving body satisfaction (Almazan & Keuroghlian, 2021; Kuper et al., 2020; Pullen Sansfaçon et al., 2019; Sammons, 2011). Hormones and puberty blockers can have positive psychological effects, including reduced gender incongruence (de Vries et al., 2011; Smith et al., 2005; Turban et al., 2020). Surgical interventions can also improve mental health, in addition to improving self-confidence (Almazan & Keuroghlian, 2021; Costa & Colizzi, 2016; Smith et al., 2005).

Considering the potential positive impacts of gender-affirming interventions on TNB people's mental health, it is essential to better understand gender-specific intervention needs for this population. The objective of this study was to better understand gender-specific needs and priorities for gender-affirming

Table 1. Detailed gender-affirming medical and aesthetic interventions categories used in the study.

HRT or hormones and puberty blockers ¹	Facial interventions ²	Upper/lower body interventions ³ (excluding facial and genitals)	Genital interventions ⁴
• Feminizing hormone therapy	• Facial feminization	• Breast augmentation	• Vaginoplasty
• Masculinizing hormone therapy	• Facial masculinization	• Breast reduction	• Vulvoplasty or clitoroplasty
• Hormones and puberty blockers	• Thyroid cartilage reduction • Hair implants • Laser/electrolysis hair removal • Beard transplant	• Mastectomy or torsoplasty • Shoulder reduction • Hip liposuction • Hip and/buttock lipofilling	• Orchidectomy • Hysterectomy • Ovariectomy • Metoidioplasty • Phalloplasty • Penile prosthetic/stage 2 phalloplasty • Scrotoplasty • Testicular implants

¹All hormonal therapy are covered by Québec's public provincial insurance (RAMQ).

²All facial interventions, which are considered aesthetic, are not covered.

³Upper or lower body interventions, excluding facial and genital interventions, are not covered except mastectomies or torsoplasties.

⁴Most genital interventions are covered, unless it is considered aesthetic (Éducaloi, 2024; GrS Montreal, s.d.).

care of TNB people in Québec. Our hypothesis was that gendered differences in needs and priorities of TNB people, reflecting gender diversity of this population.

Methods

Study context

The study "Becoming oneself through surgeries: a citizen exploration in gender-affirming research" was set up following a collaboration between APS, a senior researcher, and CA, a citizen, through the ENGAGEMENT program (Fonds de recherche du Québec, 2022). This Fonds de Recherche du Québec program enables citizens to submit research questions, offering the possibility of eventual collaboration with a research team if the question is selected. CA, a citizen who had begun her transition in her sixties, submitted a research question: *What gender-affirming interventions are prioritized by people who have experienced, are experiencing or are questioning their transition?* Interested in this question, APS and her team established a collaboration with CA. The results presented in this article stem from this collaborative research.

Study design and questionnaire

A cross-sectional study design was used to collect data from the TNB population of Québec (Canada). A questionnaire divided into three sections (sociodemographic information, transition-related medical and aesthetic desires and needs, and transition-related medical and aesthetic priorities) was developed, informed by a literature review, and partly inspired and adapted by the Trans PULSE survey (Bauer et al., 2015). Gender-affirming medical and aesthetic interventions were grouped into four categories: Hormone replacement therapy (HRT) or hormones and puberty blockers; Facial interventions; Upper and lower body interventions (excluding facial and genitals); Genital interventions (Table 1). HRT refers to the use of hormones to acquire sexual characteristics corresponding to gender identity, whereas hormone or puberty blockers refer to medications used to block the effects of sex steroids (Vandermorris & Metzger, 2023). The questionnaire was reviewed by the permanent advisory board of the Canada Research Chair on Partnership Research and Empowerment of Vulnerable Young People. Following revisions, 41 questions were included in the final questionnaire, with several open-ended questions allowing participants to elaborate on their experiences. Participants were asked to select the gender identity that most closely matched their own from the following options: "trans man or boy, or transmasculine person"; "trans woman or girl, or transfeminine person"; "non-binary, genderqueer, genderfluid, agender, bigender, or other similar identity"; "questioning". To promote inclusion and comfort among participants, and on the advice of the permanent consultation committee, sex assigned at birth was not asked.

Data collection

Between April and June 2023, we recruited 340 participants who started the questionnaire online. Inclusion criteria for participation were: 1) being over 14 years old; 2) residing in the province of Québec, Canada; 3) identifying as trans or non-binary (or any similar identity); and 4) having received or desire to receive one or more gender-affirming medical or aesthetic interventions. Recruitment was achieved through the support of 62 organizations with whom the questionnaire link had been shared. A final sample of 223 participants completed the entire questionnaire (response rate: 66%) and were included in the analysis.

Data analysis

We used a sequential explanatory mixed-methods design by drawing on qualitative data to illustrate the results of the quantitative analysis (Creswell & Plano Clark, 2018). Quantitative analyses described the needs of TNB participants, while qualitative responses were used to enrich the descriptive quantitative

analyses and gain a better understanding of participants' experiences in their own words, which is not possible by using only quantitative design.

Univariate and bivariate descriptive analyses were performed using SPSS software. Given the small sample size and complexity of the categories of certain variables, variable recategorizations was performed during data cleaning. For example, gender identity was grouped into three categories as follows: 1) transfeminine persons ("trans woman or girl, of transfeminine person"); 2) transmasculine persons ("trans man or boy, or transmasculine person"); and 3) non-binary persons (which included people who selected "non-binary, genderqueer, genderfluid, agender, bigender or other similar identity," "questioning," or a combination of labels). Bivariate analyses were conducted to explore gendered differences in needs, desires, and priorities for medical and aesthetic gender-affirming interventions among TNB people in Québec. Chi-square analyses were performed to determine whether differences between groups were significant at a level of 0.05. These analyses aim to verify whether the difference between expected and observed frequencies was dependent on gender identity. Qualitative responses were coded inductively and used to enrich the descriptive quantitative analyses for a better understanding of the participants' experiences. Data were collected in French or English and all French quotes were translated into English for this article.

Ethics

All participants provided written consent before completing the questionnaire. The questionnaire was anonymous and confidential; no personal identification information was asked (name, email, etc.) and participants were instructed not to provide any information that could identify them in the open-ended questions. The minimum age requirement for participation was 14, since parental consent is not required from that age onwards when circumstances warrant it (Université de Montréal, s.d.). No compensation was offered to participants. This study was approved by the Society and Culture Research Ethics Committee (CER-SC) of the University of Montreal (#2023-4122).

Results

Sociodemographic characteristics

Of the 223 participants, 30.9% identified as transmasculine, 37.7% as transfeminine, and 31.4% as non-binary or other genders (Table 2). A wide variety of sexual orientations was represented, with higher proportions of queer and bisexual orientations (27.4 and 23.8%, respectively). Most participants were aged between 26 and 40 years (40.8%) and 24.7% lived in the Montreal area. Only a few participants (2.2%) identified as racialized.

Medical and aesthetic interventions desires, needs and priorities

Among the gender-affirming intervention categories, significant gendered differences were observed for all interventions (Table 3). Despite HRT or blockers being desired or received by almost all participants (95.5%), non-binary participants had a significantly lower need for this intervention (87.1%; $p < 0.001$) than transmasculine (100%) and transfeminine (98.8%) participants. Upper- and lower-body interventions were desired or received by all transmasculine participants compared to 63.1% of transfeminine or 82.9% of non-binary participants ($p < 0.001$). More gendered variations were observed for facial intervention needs, with only 18.8% of transmasculine and 41.4% of non-binary participants compared with 97.6% of transfeminine participants ($p < 0.001$).

For participants across genders, HRT or blockers scored the highest priority for gender-affirming interventions (Figure 1). While upper- and lower-body interventions were the second highest priority for transmasculine and non-binary participants, facial interventions were more important for transfeminine participants.

Table 2. Sociodemographic characteristics of participants (*n*=223).

Sociodemographic characteristics	<i>n</i>	%
Gender		
Transmasculine	69	30.9
Transfeminine	84	37.7
Non-binary (and other gender ¹)	70	31.4
Sexual orientation		
Queer	61	27.4
Bisexual	53	23.8
Other	51	22.9
Lesbian	40	17.9
Gay	34	15.2
Heterosexual	26	11.7
Demisexual	25	11.2
Asexual	24	10.8
Questioning	11	4.9
Age		
14–17	22	9.9
18–25	62	27.8
26–40	91	40.8
41–54	30	13.5
55+	18	8.1
Region of residence		
Montréal	55	24.7
Montérégie	29	13.0
Capitale Nationale	25	11.2
Mauricie	21	9.4
Estrie	18	8.1
Saguenay-Lac-Saint-Jean	17	7.6
Outaouais	14	6.3
Laurentides	11	4.9
Other regions ²	42	18.8
Racialized person		
Yes	5	2.2
No	213	95.5
Doesn't know	5	2.2
Education level		
Currently in high school	19	8.5
High school diploma	38	17
Professional diploma	17	7.6
College diploma (CÉGEP)	69	30.9
Undergraduate diploma	50	22.4
Graduate diploma	30	13.5
Income		
< \$20,000	50	22.4
\$20,000–\$39,999	37	16.6
\$40,000–\$59,999	59	26.5
\$60,000–\$79,999	19	8.5
\$80,000–\$99,999	8	3.6
> \$100,000	22	9.9
No income	19	8.5
Prefer not to answer	9	4.0

¹Non-binary, questioning, or a combination of non-binary, questioning transfeminine and/or transmasculine.²Centre-du-Québec, Chaudière-Appalaches, Lanaudière, Laval, Bas-Saint-Laurent, Gaspésie-Îles-de-la-Madeleine, Nord-du-Québec.**Table 3.** Overview of gender-affirming medical and aesthetic procedures desired or received by gender.

	By gender								
	All participants (<i>n</i> =223)		Transmasculine (<i>n</i> =69)		Transfeminine (<i>n</i> =84)		Non-binary (<i>n</i> =70)		<i>p</i> -value
Intervention	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	
HRT/blockers	213	95.5	69	100	83	98.8	61	87.1	<0.001
Upper/lower body	180	80.7	69	100	53	63.1	58	82.9	<0.001
Genitals	168	75.3	53	76.8	74	88.1	41	58.6	<0.001
Facial	124	55.6	13	18.8	82	97.6	29	41.4	<0.001

HRT and hormones or puberty blockers

HRT and hormones or puberty blockers were the most desired and received interventions, and were ranked as the highest priority across all genders (Table 3 and Figure 1). However, when examining specific interventions in that category, gendered differences were observed (Table 4). “Feminizing” hormones

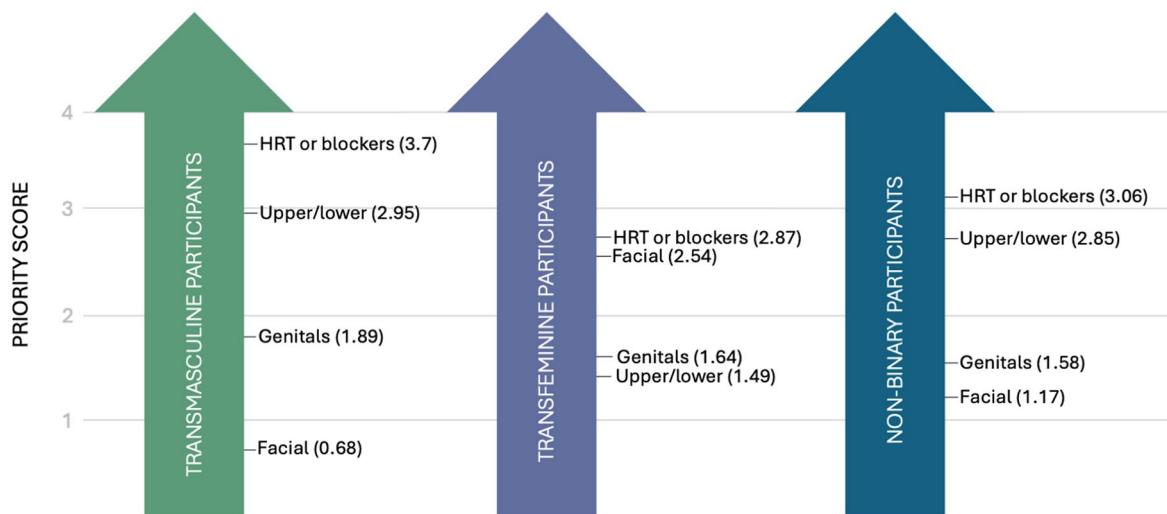


Figure 1. Priority scores for each category of interventions by gender. A priority score of 4 represents the highest priority. Scores were measured using this formula: $(n \text{ of participants who ranked } \#1 \times \text{score } 4 + n \text{ of participants who ranked } \#2 \times \text{score } 3 + n \text{ of participants who ranked } \#3 \times \text{score } 2 + n \text{ of participants who ranked } \#4 \times \text{score } 1) / \text{total } n \text{ of participants}$.

Table 4. Participants who desired or had received HRT and hormones or puberty blockers ($n=213/223$) by specific intervention and gender.

HRT and hormones or puberty blockers intervention	By gender							
	All participants ($n=223$)		Transmasculine ($n=69$)		Transfeminine ($n=84$)		Non-binary ($n=70$)	
	N	%	n	%	n	%	n	%
"Feminizing" hormones	97	43.5	1	1.5	83	98.8	13	18.6
"Masculinizing" hormones	120	53.8	68	98.6	0	0	52	74.3
Grouped hormones	213	95.5	69	100	83	98.8	61	87.1
Hormones and puberty blockers	53	23.8	8	11.6	36	42.9	9	12.9
None	10	4.5	0	0	1	1.2	9	11.4

were desired or received by almost all transfeminine participants (98.8%) while "masculinizing" hormones were desired or received by almost all transmasculine participants (98.6%). Hormone blockers and puberty blockers varied greatly between transmasculine (11.6%), non-binary participants (12.9%), and transfeminine participants (42.9%; $p < 0.001$). Furthermore, among non-binary participants, the need for "gendered" hormone treatments varied, with 18.6% wishing or having received "feminizing" hormones and 74.3% "masculinizing" hormones.

As expressed by many participants, HRT is often seen as a way to reduce gender dysphoria and improve self-esteem:

My physical characteristics meant that I was constantly being bullied. Taking testosterone completely solved my social dysphoria and made me feel really good about myself, happier and more confident. (Transmasculine participant, 26-40 years old)

For others, especially younger participants, HRT was perceived as a potential way to reduce the need for future interventions. Therefore, it is an important intervention that can foster the desired gendered characteristics while limiting undesired ones.

The effects of feminizing hormones are very attractive and crucial to my transition. They should also obviate the need for breast augmentation, which simplifies a lot of things. (Transfeminine participant, 14-17 years old)

Upper and lower body interventions

While 80.7% of participants desired or received upper- or lower-body interventions (Table 3), gendered differences were reflected by priority scores (Figure 1) and specific intervention needs in that category.

Table 5. Participants who desired or had received upper or lower body interventions ($n=180/223$) by specific intervention and gender.

Upper and lower body intervention	All participants ($n=223$)		By gender				<i>p</i> -value		
			Transmasculine ($n=69$)		Transfeminine ($n=84$)		Non-binary ($n=70$)		
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	
Breast augmentation	50	22.4	0	0	47	56	3	4.3	<0.001
Mastectomy/torsoplasty	118	52.9	67	97.1	0	0	51	72.9	<0.001
Breast reduction	12	5.4	2	2.9	0	0	10	14.3	<0.001
Shoulder reduction	17	7.6	1	1.5	15	17.9	1	1.4	<0.001
Hip liposuction	37	16.6	20	29	1	1.2	16	22.9	<0.001
Hips and/or buttocks lipofilling	21	9.4	1	1.5	20	23.8	0	0	<0.001
None	43	19.3	0	0	31	36.9	12	17.1	<0.001

Table 6. Participants who desired or had received genital interventions ($n=168/223$) by specific intervention and gender.

Genital intervention	All participants ($n=223$)		By gender				<i>p</i> -value		
			Transmasculine ($n=69$)		Transfeminine ($n=84$)		Non-binary ($n=70$)		
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	
Vaginoplasty	68	30.5	1	1.5	63	75	4	5.7	<0.001
Orchidectomy	17	7.6	0	0	15	17.9	2	2.9	<0.001
Hysterectomy	71	31.8	42	60.9	0	0	29	41.4	<0.001
Ovariectomy	24	10.8	19	27.5	0	0	5	7.1	<0.001
Metoidioplasty	35	15.7	21	30.4	0	0	14	20	<0.001
Phalloplasty	27	12.1	23	33.3	0	0	4	5.7	<0.001
Penile prosthesis/Stage 2 phalloplasty	24	10.8	19	27.5	0	0	5	7.1	<0.001
Scrotoplasty	21	9.4	19	27.5	0	0	2	2.9	<0.001
Testicular implants	22	9.9	20	29	0	0	2	2.9	<0.001
None	55	24.7	16	23.2	10	11.9	29	41.4	<0.001

Breasts are strongly associated with feminine expression, and this is reflected in the proportion of TNB people who wanted to enlarge, reduce, or completely remove their breasts (Table 5). Significant gender differences were observed for breast augmentation (56% of transfeminine participants), mastectomy or torsoplasty (97.1% of transmasculine and 72.9% of non-binary participants), and breast reduction (14.3% of non-binary participants). Similarly, hip liposuction and lipofilling varied by gender, with a greater proportion of transmasculine (29%) and non-binary (22.9%) participants desiring liposuction and a greater proportion of transfeminine participants desiring lipofilling (23.8%).

Participants widely expressed their desire for upper-body surgery to alleviate gender dysphoria, reduce the negative impact on their mental health, and eliminate the need for temporary solutions such as binder use.

For too long I've lived with a body that doesn't reflect who I am. My "feminine attributes" are too important, and I want to stop using a binder. I've been using it for decades and it's affecting my body and mind. (Non-binary participant, 41-54 years old)

Gender dysphoria is no joke. I hurt my ribs using a binder because I don't like my body. I don't want people to see my chest. [...] Top surgery could save my life. (Transmasculine participant, 14-17 years old)

Genital interventions

Genital interventions include a variety of specific interventions of the internal and external genitalia; consequently, the desires and needs for these interventions vary according to type and gender (Table 6). Among transfeminine participants, the most desired or performed intervention was vaginoplasty (75%). In the case of transmasculine participants, there was a wide range of possible interventions, including hysterectomy (60.9%), phalloplasty (33.3%), and metoidioplasty (30.4%). Among non-binary participants, there was also a strong need for hysterectomy (41.4%), while the same proportion wanted no genital intervention.

While genital interventions were ranked third in priority scores for all genders (Figure 1), many participants still expressed wanting interventions in that category for various reasons, even though it was not

Table 7. Participants who desired or had received facial interventions ($n=124/223$) by specific intervention and gender.

	All participants ($n=223$)		By gender				p -value		
	N	%	n	%	n	%			
Facial intervention									
Facial feminization	63	28.3	1	1.5	59	70.2	3	4.3	<0.001
Facial masculinization	9	4	3	4.4	0	0	6	8.6	0.03
Thyroid cartilage reduction	34	15.3	1	1.5	31	36.9	2	2.9	<0.001
Hair implants	34	15.3	6	8.7	20	23.8	8	11.4	0.02
Laser hair removal/electrolysis	102	45.7	3	4.4	78	92.9	21	30	<0.001
None	99	44.4	56	81.2	2	2.4	41	58.6	<0.001

the most important intervention to obtain. For some, having their periods, risking a pregnancy, and gynecological follow-ups cause distress that can be avoided by genital interventions.

I wanted to avoid a potentially very difficult situation mentally... I absolutely didn't want to have children. (Non-binary participant, 26–40 years old)

I am not comfortable receiving pap tests and would like to avoid a possible return of menstruation/cramps and pregnancy. (Transmasculine participant, 26–40 years old)

For others, sexuality and feeling comfortable in their body are the main reasons for wanting genital intervention.

I want to be able to reclaim my sexuality, to not have to explain to every partner why everything is different for a trans person, to no longer have complications and mental barriers towards my sexuality and live a fulfilled life. (Transfeminine participant, 26–40 years old)

Some participants expressed a desire to stop taking testosterone and were therefore considering hysterectomy to prevent the return of their periods, like non-binary people wishing to achieve androgynous expression.

A hysterectomy without removing my ovaries would possibly allow me to stop taking hormones or at least have a smaller dose without getting my period again, which might help me feel more androgynous. (Non-binary participant, 18–25 years old)

Some participants also expressed the desire to have a hysterectomy to avoid some feminizing effects in case they stop hormones:

A hysterectomy is most likely my next step. Stopping my periods with testosterone is one of the changes that gives me the most peace of mind. I want to make sure that continues, even if I decide to stop hormone therapy. (Transmasculine participant, 26–40 years old)

Facial interventions

Gendered variations were strongly marked in the desire and need for facial interventions, as shown in Table 3. Moreover, priority scores greatly varied across genders, with transfeminine participants ranking them as the second highest priority, and transmasculine participants and non-binary participants as last (Figure 1). Facial feminization interventions were desired or received by 70.2% of transfeminine participants (Table 7). However, facial masculinization interventions were desired by only 4.4% of transmasculine participants.

The most desired or performed facial intervention was laser hair removal (45.7%), with a very high proportion among transfeminine people (92.9%) and around a third of non-binary people (30%). This was largely highlighted in the participants' testimonies, raising the importance of removing hair not only to improve their "passing" as a woman, but also to increase their safety.

This is important to me because I want my face to reflect who I am, a woman, not a man pretending to be a woman. I also don't want it to reflect my past as a man. It would also make me feel safer from transphobes. (Transfeminine participant, 26–40 years old)

In addition, many non-binary participants expressed a desire for more gender-neutral expressions. However, some interventions can accentuate unwanted gendered characteristics, resulting in additional intervention needs.

I wonder about taking testosterone and its effects, mainly an overly masculine appearance, which is not what I'm looking for. [...] If I'm taking testosterone and I have a lot of facial hair, which I don't want, I'll almost certainly have electrolysis to remove it. (Non-binary participant, 26–40 years old)

Discussion

Our findings highlight gendered differences and similarities in the needs for gender-affirming medical and aesthetic interventions among TNB people in Québec, Canada. HRT and hormones or puberty blockers were the most desired interventions across all genders, and significant differences appeared between genders, particularly within the upper and lower body and facial interventions. However, these differences regarding needs do not seem to be reflected in current public policies surrounding access to such care, notably in the coverage offered by provincial health insurance in Québec.

Not surprisingly, significant differences were identified in the need for certain interventions offered to specific genders. These differences should be considered when offering gender-affirming interventions. For example, facial laser hair removal is an important need among transfeminine people, which is considered aesthetic and is not covered in most Canadian provinces (Ross & Fraser, 2023). This highlights a gap between TNB people needs and the offer of interventions in the public system. Indeed, approximately 93% of transfeminine participants expressed the need for facial hair removal, a result similar to that of the 2015 US Transgender Survey (90%) (James et al., 2016). Our results and other studies also highlight that TNB people's motivations for hair removal are not only for aesthetic reasons, but in most part for safety and being able to be oneself without fear of experiencing violence and discrimination due to facial hair (Ross & Fraser, 2023). In fact, in Canada, the Yukon government recently approved public funding for procedures considered cosmetic in most other provinces and territories, paving the way for more inclusive public healthcare funding (Maine et al., 2025).

Regarding hormonal interventions, among participants, there appeared to be a greater need for hormones or puberty blockers in transfeminine people. This could be because some transfeminine people may need to take blockers throughout their lives, unlike transmasculine people, who generally take it at the onset of puberty to delay it (Coleman et al., 2022). Gendered differences were also reflected in the upper- and lower-body interventions. Indeed, our findings show an important need for mastectomies in transmasculine and non-binary people, while the need for breast augmentation in transfeminine people is more limited. Supporting this, our qualitative results suggest that having breasts could have a more negative impact on transmasculine people, both in terms of gender dysphoria and physical pain, than not having breasts in transfeminine people. Considering this, it is relevant that mastectomies, which are considered gender-reassignment surgeries, are covered by provincial health insurance in Québec. However, this does not justify breast augmentation not being covered simply because it is considered aesthetic (GrS Montreal, s.d.) as it can promote self-esteem and reduce psychological distress (Almazan & Keuroghlian, 2021).

Our findings also highlight the need for gender-affirming interventions. Indeed, the need for genital interventions is present for all genders, although they are less of a priority than other categories of interventions. The reasons vary according to gender, with transmasculine people who no longer wish to have their periods or do not want to risk getting pregnant, while transfeminine people who wish to improve their love life and feel comfortable in their body. Some people also mentioned wanting a hysterectomy to be able to stop HRT without having feminizing effects, highlighting the need for good information and follow-up to ensure a balance between desired effects and the maintenance of sufficiently high hormone levels. That said, even if they come with a lower priority, it is important to highlight that these interventions remain important for many.

Our study has implications for future studies and for inclusive interventions adapted to the needs of TNB people. First, although our sample was quite small, our results still allowed us to identify trends in the needs of people of various genders. Future studies could focus even more on gender specificities with a larger

sample to capture nuances that we may have missed, particularly for our group of non-binary participants in which other genders were included. In addition, the open-ended questions were highly informative, and a full qualitative study could be relevant to deepen our understanding of needs. Intersectional identities can also influence access to gender-affirming interventions, such rural/urban setting. Indeed, eligible gender affirmation surgeries must be performed at GRS Montreal to be covered by Québec provincial health coverage, which can represent a geographical limitation. Intersecting identities could be further explored in future studies. Then, health coverage should be expanded to include interventions that are considered aesthetic but are equally beneficial and essential for TNB people. This would avoid creating gender inequalities while promoting the well-being and safety of those concerned. Finally, care providers should be aware of the gendered differences in the needs of TNB people and be adequately trained to support them. This would ensure that TNB individuals receive all the information they need to make informed decisions.

An important limitation of our study is that we did not ask participants about their sex assigned at birth. This was advised by community members of the permanent consultation committee to reduce discomfort as much as possible while completing the survey. That said, this decision limits our interpretation of the data, particularly for non-binary people, and could have been relevant for a better understanding of participants' needs. On the other hand, one of the strengths of the study is its inclusion of more qualitative open-ended questions. This counterbalanced, at least in part, the fact that we did not ask about sex assigned at birth by giving us access to more details and a better understanding of the experiences of non-binary participants, in particular. In this way, we were able to identify subtleties in the participants' testimonies, enabling us to deepen our interpretation of quantitative data. Another important limitation is the grouping of gender identities into three categories, limiting more specific gender differences beyond these categories. However, the small sample size did not allow for analysis of the data by each group, given the low number of participants in some categories, hence the grouping of a diversity of participants under "non-binary participants." We recognize that this limits the understanding of more specific gendered nuances.

In conclusion, our study identified gendered differences in the need for gender-affirming interventions for TNB people in Québec. While various policies related to TNB populations are being proposed and implemented by some provinces in Canada, some of which are considered discriminatory (Community-Based Research Centre, 2024), it is all the more important to support and move forward with inclusive and better-adapted public health policies. Our findings contribute to provide a portrait of the needs of this population and identify possible solutions to promote their health and well-being.

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Ethics statement

All procedures performed in this study involving human participants were in accordance with the ethical standards of the Society and Culture Research Ethics Committee (CER-SC) of the University of Montreal (#2023-4122) and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards.

Authors' contribution

Claude Amiot and Annie Pullen Sansfaçon contributed to the conception and design of the study. The data collection tools and materials were developed by Claude Amiot and Annie Pullen Sansfaçon. Claude Amiot and Annie Pullen Sansfaçon contributed to data collection and analysis. Morgane Gelly contributed to data analysis, with the contribution of Geneviève Fortin. Geneviève Fortin contributed to the writing and review of the manuscript. All authors have contributed to, read and approved the final manuscript.

Disclosure statement

None to declare.

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Data availability statement

The participants of this study did not provide written consent for their data to be shared publicly, so due to the sensitive nature of the research supporting data is not available.

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