

BMJ Open In their own words: experiences surrounding masculinising chest surgery among transgender and gender-diverse adolescents – a secondary analysis of GENDER-Q data

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ABSTRACT

Objective Masculinising chest surgery, also known as top surgery, is the most requested gender-affirming procedure among transgender and gender-diverse (TGD) adolescents, yet research on patient experiences remains limited. This study explored the experiences of TGD adolescents who were seeking or had undergone masculinising chest surgery.

Design Qualitative secondary analysis using existing themes framework and data from the GENDER-Q (GQ) and GENDER-Q Youth (GQY) research programmes, which aim to develop comprehensive patient-reported outcome measures for gender-affirming care.

Setting Participants were sampled from five high-volume gender-affirming care clinics, three in Canada and two in the United States. Interviews were conducted online.

Participants 35 GQ and GQY participants aged 13–18 years who were assigned female at birth, identified as trans men or non-binary, and were pursuing (n=19) or had undergone (n=16) masculinising chest surgery.

Results Three major themes emerged: chest appearance, health-related quality of life (HRQL) and gender practices. Most participants expected a flatter chest that aesthetically aligned with their gender identity. Presurgery participants anticipated that surgery would allow them to engage in previously avoided physical activities and would enhance their relationships. Postoperative participants reported increased physical activity, mental resilience, bodily connection and social comfort. Most reported binder use and related reliance or discomfort as motivators for pursuing surgery.

Conclusions This study highlights the multidimensional experiences surrounding masculinising chest surgery on TGD adolescents with impacts on chest appearance, HRQL and gender practices. Centering adolescents' perspectives, these findings underscore the importance of accessible, affirming surgical care and provide valuable insights for clinicians, policymakers and future research.

STRENGTHS AND LIMITATIONS OF THIS STUDY

- ⇒ This study uses in-depth qualitative interviews to capture the lived experiences and expectations of transgender and gender-diverse adolescents seeking masculinising chest surgery.
- ⇒ The analysis draws from the GENDER-Q and GENDER-Q Youths' rigorously developed data set, designed specifically to capture patient-reported outcome in gender-affirming care.
- ⇒ The study was limited to participants who were from Canada and the United States and willing to participate in the research, which may affect the generalisability of findings.
- ⇒ As a secondary analysis of existing interview data, the study was constrained by the original interview guide, which was not designed solely to specifically explore chest surgery experiences of adolescents.

INTRODUCTION

Transgender and gender diverse (TGD) individuals have gender identities that differ from their sex assigned at birth. Some transmasculine TGD adolescents seek gender-affirming medical care to align their bodies with their gender identity, including puberty blockers, hormone replacement therapy and/or masculinising chest surgery also known as 'top surgery'.^{1,2} Among TGD adolescents, the number of top surgeries has increased over the years.³ However, the number of these surgeries in TGD adolescents is relatively small: the vast majority of masculinising chest surgeries are performed in TGD adults, and a far greater number of chest-reducing procedures are performed in cisgender adolescents for other indications, such as gynecomastia or macromastia.⁴ Access to gender-affirming care for adolescents is increasingly shaped by



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shifting political and regulatory landscapes around the world. In several countries, including the USA, England and Sweden there have been recent efforts to regulate access to such care for adolescents.^{5–7} Against this backdrop, understanding the experiences of TGD youth may help inform ethical, patient-centred care and evidence-based policy discussions.

Significant gaps remain in understanding TGD patient experiences and patient-reported outcome measures (PROMs) are needed. To address this gap, the GENDER-Q (GQ) was developed as a comprehensive PROM for gender-affirming care.^{8–10} The GQ includes 54 independently scored scales and two checklists, including three relevant to masculinising chest surgery: satisfaction with chest appearance, health-related quality of life (HRQL) and gender practice. The GENDER-Q Youth (GQY) module, designed for individuals aged 12–25 years, has a distinct conceptual framework with some overlap with GQ scales. An important difference between the two modules is that the surgical scales are only included in the GQ study with adults aged 18 years and older. However, qualitative interviews revealed that most adolescents (35/36 eligible participants) in both concept elicitation studies directly referenced their expectations and experiences with masculinising chest surgery.

Understanding adolescents' preoperative and postoperative experiences is essential for preoperative education, expectation setting and shared decision-making.¹¹ While quantitative research provides valuable insights into how chest surgery impacts chest satisfaction and HRQL, qualitative research contextualises these findings by capturing lived experiences.¹² This paper is a secondary analysis of broader concept elicitation interviews from the GQ and GQY, specifically exploring the preoperative and postoperative experiences of TGD adolescents who were seeking or had undergone masculinising chest surgery, offering important insights into the broader impact of gender-affirming care.

METHODS

This qualitative study is a secondary analysis using the existing broader themes framework from a larger psychometric research project aiming to develop PROMs for individuals seeking gender-affirming care and services, called the GQ (18 years and older) and the GQY (12–19 years).^{8,9} Detailed methods and results of the GQ and GQY studies are reported elsewhere.^{8,9}

STUDY SAMPLE AND RECRUITMENT

For the concept elicitation interviews from the GQY study, English-speaking participants aged 12–18 were recruited through purposeful sampling at five high-volume gender-affirming care clinics (three in Canada, two in the USA), as well as through limited snowball sampling of eligible youth outside of these clinical settings.⁹ The research coordinator provided study details, obtained written

informed consent (involving parents/caregivers when appropriate based on regional age requirements for consent), and scheduled interviews. Individuals seeking gender-affirming care for reasons other than gender dysphoria (e.g., disorder of sexual development) were not eligible. Qualitative data from interviews with adolescents as part of the GQ study for this age group was also included (n=6). This study focused on a subset of GQY and GQ participants who were aged 13–18 years who were assigned female at birth, identified as trans men or non-binary, and were pursuing (n=19) or had undergone (n=16) masculinising chest surgery. Of the 47 GQY participants, 30 were trans men or non-binary individuals assigned female at birth (AFAB); 29 of them directly referenced 'top surgery' in their concept elicitation interview. This study included 6 interviews from the GQ study (February 2019–February 2020) and 29 interviews from the GQY study (November 2021–October 2023).

STUDY PROCEDURES

An experienced qualitative researcher conducted one-on-one concept elicitation interviews with each participant using Zoom V.5.8.4. Using an interview guide (included in online supplemental file), the interviewer elicited participants' experiences with gender-affirming care, surgical procedures, surgical recovery, appearance, voice, psychological well-being, body image, social life and physical function.^{8,9} All interviews were digitally recorded and transcribed verbatim with all identifying information removed. Interviews continued until thematic saturation was reached, with no new themes emerging. All interview data were anonymised prior to access by this secondary analysis team. The data were stored on a secure cloud-based drive associated with McMaster University.

ANALYSIS

Interviews were conducted and analysed concurrently using a line-by-line approach, allowing for iterative refinement of the interview guide (available as online supplemental material).^{13,14} The analysis resulted in a conceptual framework and an item pool that informed the development of the GQ and the GQY.^{8,9} For this secondary analysis, all coded quotes mentioning 'top surgery' were extracted and independently reviewed by two additional researchers. The secondary analysis team included clinicians and qualitative researchers with experience in gender-affirming care and PROM development. Analytic discussions included reflexive consideration of how researchers' clinical and disciplinary perspectives could shape interpretation of the data. We applied an interpretive description approach which serves to understand phenomena through how participants experience them.¹⁵ The existing coding structure from the GQ and GQY modules was maintained, including top-level themes and primary subthemes, while secondary and tertiary subthemes were refined as needed. To ensure rigour, the

Table 1 Participant demographics (n=35)

Characteristic	No. (%)
Country	
Canada	23 (65.7)
USA	12 (34.3)
Age range (years)	
13–15	7 (20)
16–18	28 (80)
Gender identity	
Male	24 (68.6)
Non-binary	10 (28.6)
Prefer not to answer (N-A)	1 (2.9)
Race/ethnicity	
African American	1 (2.9)
Latin American	2 (5.8)
Caucasian	31 (88.6)
Multiracial	1 (2.9)
Chest surgery status	
Wants	19 (54.3)
Had	16 (45.7)
N-A, not available.	

team held regular debriefing sessions to review coding decisions and establish conceptual consensus.

RESULTS

Demographics

Qualitative interviews from 35 trans male and non-binary individuals AFAB who were considering or had undergone masculinising chest surgery were included in the analyses. The time since surgery ranged from 1.5 to 18.9 months. The demographic data are shown in [table 1](#).

THEMES

The analysis showed the following three major themes: chest appearance, HRQL and gender practices. We constructed a chart of themes and subthemes visualised with [figure 1](#).

The three main themes and their subthemes form a dynamic, interconnected network shaped by individual experiences. For clarity, we distinguish ‘body image’ as self-perception, ‘social’ as relationships with others, and ‘appearance’ as outward presentation. The following sections detail these themes, with verbatim quotes minimally edited of filler words and hesitations for clarity. This approach maintains authenticity while aligning with qualitative research standards.¹⁶

[Table 2](#) illustrates a diversity of quotations and experiences across the themes and subthemes.

CHEST APPEARANCE

Chest appearance emerged as a major theme in the data, with most participants sharing the expectation that their chest would aesthetically align with their gender identity. This theme encompassed three subthemes: chest contour, nipples, and scars. Most participants desired a flat chest as a surgical outcome.

“Really all I want out of it is a flat chest and if there are complications along the way, then so be it.” [Wants chest surgery (CS), Age 17]

“I decided to go with the more masculine, which means that they cut off your nipples completely, reshape them, and then stick them back on top of your skin and they do a graft. [...] I want more of the appearance than the feeling.” [Had CS, Age 15]

In contrast to the consistency of chest contour goals, participants expressed varied perspectives on scarring, ranging from acceptance and indifference to concern. Some viewed their scars as tokens of their surgery journey, while others considered them an aesthetic concern.

“The scars are prominent. I don’t mind them necessarily, because to me I think that scars are kind of...the idea of scars are cool.” [Had CS, Age 17]

HEALTH-RELATED QUALITY OF LIFE

HRQL was used to capture subthemes related to physical activity, social, and psychological well-being, and body image.

Physical activity/Movement

Adolescents reported feeling that their chest restricted their ability to participate in physical activities, such as gym class, personal exercise or specific sports. A common sentiment was that running, jumping, or moving freely felt difficult prior to chest surgery. For many, the desire to engage in these activities more comfortably served as key motivators for undergoing chest surgery.

“I felt really dysphoric while doing [physical activities] and I had to wear sports bras that were compact but not necessarily, quote, ‘binding’. So it was really uncomfortable to move in that way where my chest would move.” [Wants CS, Age 15]

Adolescents who participated in sports and bound their chest often found binding during physical activity challenging.

“The reason I stopped [sports] initially was because I didn’t want to go out and have people see me in a sports bra. But I also didn’t want to run in a chest binder.” [Wants CS, Age 17]

“I did track and field and I did cross country and I binded while doing that and it was a lot harder, I think, definitely than if I hadn’t been. Breathing was very hard when exercising and I would get hot and not be able to breathe but, I would still do it, I would still wear them, ‘cause I didn’t really feel like I had anything else I could do.” [Had CS, Age 16]

Many adolescents avoided swimming pre-operatively. While some attempted to use swim-specific binders, they still found them uncomfortable. Many adolescents expressed a strong desire to swim shirtless, highlighting this as a motivator for chest surgery.

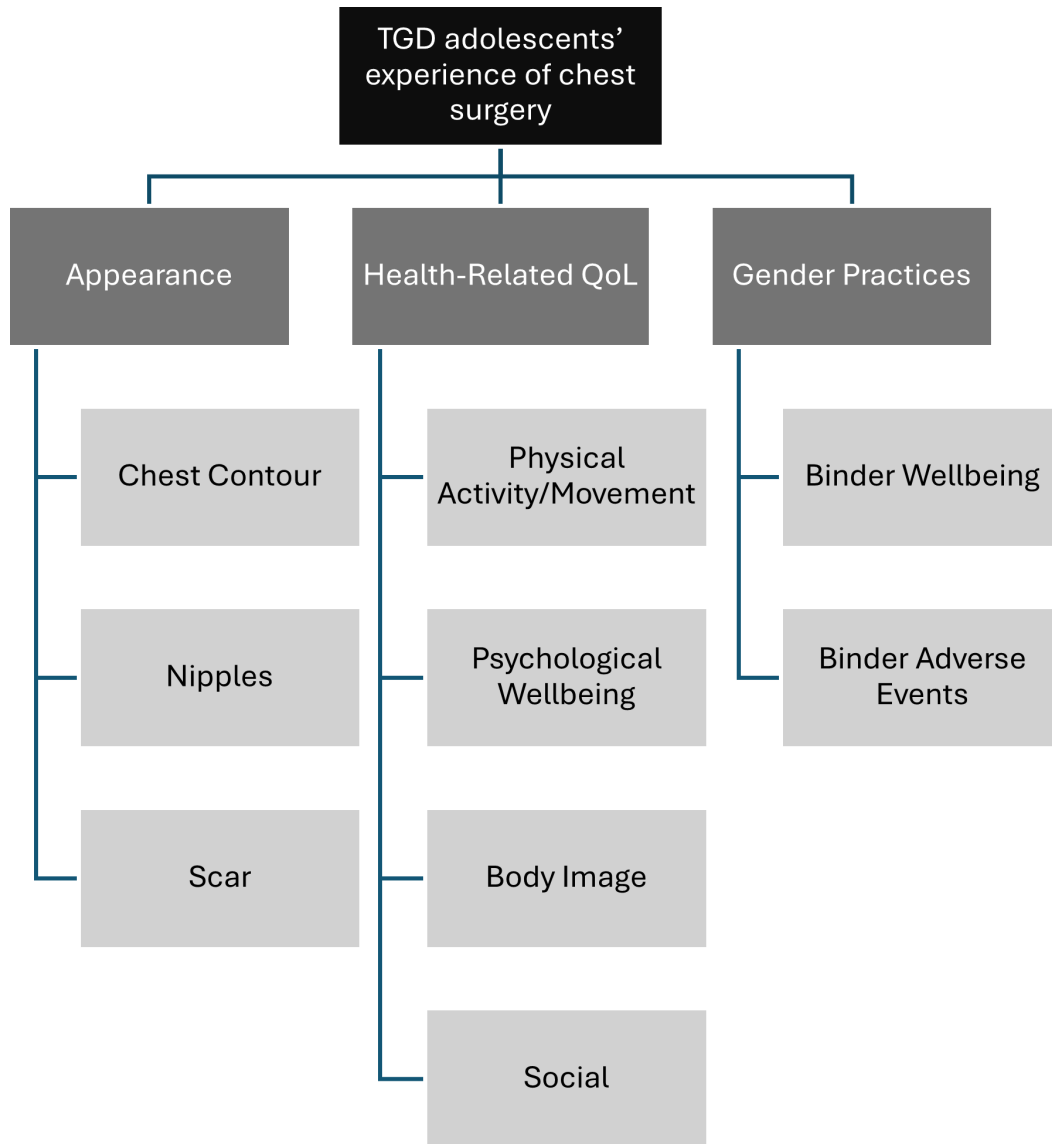


Figure 1 Themes and subthemes in TGD adolescents' experiences of masculinising chest surgery. Key themes identified from concept elicitation interviews. Each theme includes subthemes representing distinct but inter-related aspects of TGD adolescents' experiences. QoL, quality of life; TGD, transgender and gender diverse.

"I'm hoping that I can not have to wear a binder while swimming and because binders can suck while having to do at least eight laps to try and train to become a lifeguard because that's what I'm currently working on." [Wants CS, Age 13]

After undergoing chest surgery, many adolescents described the experience as freeing, emphasising how it enabled them to move, exercise, and swim without restrictions.

"I'll probably do swim team next year but I had to wear a rash guard to swim team. And I felt immense dysphoria with that, especially when I was just wearing a binder and no rash guard, you could still obviously see that my chest was not flat and it was an awful feeling. But this will be my first year where I don't have to wear a binder." [Had CS, Age 16]

Overall, participants described chest surgery as facilitating greater participation in various physical activities, allowing adolescents to move more freely and comfortably.

Psychological well-being

Participants who discussed psychological well-being in relation to chest surgery found that surgery enhanced their mental resilience and decreased their overall mental burden.

"I was not in a place where I was able to do trauma processing, because I was so dysphoric that I was incredibly depressed, and I wasn't able to handle any of that. And, getting through the top surgery has stabilized my entire emotional state so much that I'm now able to actually focus on dealing with this trauma that I have and working through it and healing from it and moving on with my life." [Had CS, Age 17]

"[Chest surgery] really makes quality of life a lot better especially with someone who already has to struggle with mental health and stuff [...] There is this whole part that is not eliminated, but it's so small now that I can do other things with my life. Like draw

Table 2 Additional quotations from participants for each theme and subtheme

Theme; subtheme	Quotations
Appearance; chest contour	"I just want a flat chest. I don't really care. I know you can lose nipple sensation. I don't really care about that. I just want it to be flat. Just get it off."(Wants CS, Age 17) "Well, I was hoping to have a masculine chest. And that's what I got."(Had CS, Age 17)
Appearance; nipples	"And then the surgeon that I ended up going with, beforehand, he told me, "Your nipples are gonna be slightly lower than a cis man's usually would be." And I was like, "Okay. Fine." And here we are and it's okay and I'm fine and very happy with my results."(Had CS, Age 16)
Appearance; scars	"But the reason I was so worried about choosing this surgeon was because I wanted to make sure I had symmetrical scars. But as soon as the surgery was done, I didn't care. I was just so happy that it happened... it wouldn't matter what they looked like."(Had CS, Age 17)
HRQL; physical activity/movement	"I used to be a big swimmer and a binder is something that you can wear in the water and I haven't gone swimming in years because I'm just not ready to be in that much of a public space and not have that many layers on."(Wants CS, Age 17) "People here have invited me to go swimming because there is a pool here. But I don't really want to because it would be me wearing a binder and swim trunks in public. And a swim shirt ... I'm just not a fan of the whole idea in general."(Wants CS, Age 18)
HRQL; body image	"I just generally wouldn't look down. Especially in the shower. That was kind of it. Yeah, I just avoided looking at myself in the mirror, looking down."(Wants CS, Age 15) "I'm going to be way more confident. I'm going to be so much more confident, because my posture is going to be so good because right now, I can't sit normally because it's uncomfortable to sit normally. But when I get top surgery, it's done. I'm going to be sitting up so straight."(Wants CS, Age 17) "[Chest surgery] really helped me go out and like the way I look 'cause before, I couldn't look at myself in the mirror. But now I can look and especially before I couldn't even take showers.(...)But now I'm like, yes, I can finally swim, I can go and take a shower in peace and not have to be annoyed by my chest. So that was big reliever."(Had CS, Age 15) "There's a huge confidence aspect of it too of, you know, there are a lot of things that, maybe, I could have done before I got top surgery but I just did not feel confident enough to, and even I just feel so much more confident just walking around and living that I feel like it's empowered me to do a lot more than I would've been able to before because I'm not worrying about my binder; I'm not worrying about my lungs; or I'm not worrying about how my chest looks."(Had CS, Age 17)
HRQL; social	"So I'm just hoping that it's gonna make it easier for me to be in public, swimming and stuff like that."(Wants CS, Age 13) "I feel much more comfortable going out in public 'cause before, I would have to wear a binder, which was very uncomfortable but even then it wouldn't hide my breasts completely. There was no completely hiding them."(Had CS, Age 17)

Continued

Table 2 Continued

Theme; subtheme	Quotations
Gender practices; binder well-being	“Never left the house at all. I went to go take out the trash, I would either be binding or wear an extremely big hoodie. Or slouching so much that it would be like the posture. I don’t even know how to explain that posture. It was awful.”(Had CS, Age 16) “I didn’t really like how much I relied on the binder. I mean, that’s kind of what the binder’s for, I know, but after a while, I was like, I kind of hate that I’m stuck with this sewed up piece of fabric around my torso and that, like, I’m just kind of, no matter what it does, I’m just kind of stuck inside of it. Can’t really do much about that until top surgery so that I didn’t really like much.”(Had CS, Age 17)
Gender practices; binder adverse events	“I want to get top surgery so I can stop binding and then maybe my ribs will go back to normal.”(Wants CS, Age 18) “I’m very glad I don’t have to bind anymore, because by the end it was getting painful. I still sometimes get some pain in my ribs.”(Had CS, Age 16)
CS, chest surgery; HRQL, health-related quality of life.	

and work on my art and stuff. I don’t have to worry about my physical self.” [Had CS, Age 17]

Body image

Participants often described chest-specific dysphoria before surgery, with many expressing that their breasts did not feel like a part of their body. Some further explained that this disconnect made it difficult to engage with their body in everyday situations, such as looking in the mirror or showering.

“I don’t want to say that [chest surgery] itself would like complete me, but I feel like there is something on me that doesn’t feel like it should be there. When I go whoop, there is something there, it doesn’t feel like an actual part of my body. It feels like it shouldn’t be there.” [Wants CS, Age 17]

Postoperative participants reported a greater sense of ownership over their bodies, expressing that interacting with their bodies felt significantly easier and more natural after surgery. They also described how chest surgery increased their confidence. These participants highlighted the deep connection between body ownership, self-assurance and social engagement, emphasising how increased confidence enhanced their relationships and daily interactions.

“It felt like, now, if I look at my chest, I can’t even imagine beforehand. It just feels like this is always how it was supposed to be and how it was supposed to look on me. This is how I’m supposed to look.” [Had CS, Age 17]

“[Chest surgery] has completely changed my perception of my body and my relationship to my body and the general way that I interact with my body emotionally. My ownership of my body has increased a lot because it, like I said, it feels like it’s mine now and as a result, all of that dysphoria vanished.” [Had CS, Age 17]

Social

Many adolescents expected that social interactions and public outings would become significantly easier

after chest surgery. This expectation was driven by two main reasons: (1) an improved self-image and confidence, as discussed in the ‘body image’ subtheme and (2) a decreased mental burden, as participants often felt that the gender incongruence in appearance required constant monitoring of their posture, clothing and binders in public.

“Like, going out in public is so much easier. Like, I don’t have to constantly think about, like, is my position correct? Am I hiding my chest enough? Are other people gonna think about my chest or, ow, my back hurts; ow, my chest hurts.” [Had CS, Age 18]

A frequent expectation was that chest surgery would facilitate adolescents’ ability to be recognised as their affirmed gender, particularly in interactions with strangers or unfamiliar individuals.

“So, after I got my top surgery, I’ve noticed that it’s a lot easier to talk to people because they immediately are, like, okay, this guy’s a dude, that’s easy. So, there’s no awkwardness anymore.” [Had CS, Age 15]

Chest surgery also impacted closer relationships, including those with friends and romantic relationships. Before surgery, many avoided social gatherings and hesitated to pursue romantic or sexual relationships. After surgery, participants reported feeling more comfortable in social settings.

“I had never dated anyone before I got surgery. I don’t know, everything just felt, like, weird and wrong about dating when I was a girl but now, after coming out and getting surgery, yeah, I finally got a boyfriend.” [Had CS, Age 18]

The data demonstrate the broad social impact of chest surgery on adolescents, influencing their interactions across various social circles, including public settings, peer relationships and romantic partnerships.

GENDER PRACTICES

Many TGD adolescents expressed heavy reliance on their binders for daily activities such as attending

school or going out in public. Some participants shared that they felt unable to leave the house or participate in everyday tasks without wearing one.

"I stay sick home from school if I can't find my binder or if I don't have a clean binder, because I can't not be flat-chested. That would be the worst." [Wants CS, Age 17]

While binding helped adolescents achieve their desired presentation in public, it was not always sufficient for concealment. For some, it was merely inconvenient, while for others, it caused significant discomfort or even pain.

"I'm very happy I got top surgery when I did, because that was awful. And it's like ... it [binder rubbing against skin] happens every day... There is nothing that I could really think of to prevent it, so I just had to deal with it. It sucked. I really hated that obviously." [Had CS, Age 15]

For postoperative participants, not needing to bind after chest surgery was closely linked to improved HRQL. Not needing chest concealment also allowed adolescents to express themselves through clothing, contributing to a greater sense of ease and comfort in their lives.

"Being able to wear outfits that I like will be exciting for me. And, I don't know, just exist and live with my chest now is just generally exciting for me." [Had CS, Age 18]

"If I get too hot, I can just take off my shirt or stuff which is really great." [Had CS, Age 17]

DISCUSSION

This qualitative study of the experiences of 35 adolescents from Canada and the USA who were seeking or had undergone masculinising chest surgery discussed impacts across three key areas: (1) chest appearance, (2) HRQL (physical activity, social well-being, psychological well-being and body image) and (3) gender practices. Many adolescents articulated the profound ways in which chest surgery shaped or was expected to shape their lives. Across many subthemes, the preoperative goals expressed by adolescents seeking chest surgery were consistent with the post-operative experiences described by those who had chest surgery. This alignment is evident in quotations throughout the study and those presented in [table 2](#). The extensive use of verbatim quotations reflects the interpretive description approach and our commitment to centring adolescent perspectives in a field where their voices are often mediated through adult discourse.

Comparison with other studies

These findings align with previous research on TGD adolescents, which demonstrated a positive relationship between masculinising chest surgery and improvements in chest dysphoria, gender congruence, and body image.^{17–19} This study also supports findings from broader research in adult populations, which show improvements in body image, psychosocial well-being and chest appearance after chest surgery—that are relevant to adolescents.^{10 20–22} This study builds on earlier research, offering valuable insights for patients, healthcare providers and policymakers on the impacts of masculinising chest

surgery for TGD adolescents. By centring the perspectives of TGD adolescents, the findings presented here bridge measurable outcomes with real-world experiences, reinforcing the lived impact of surgical interventions.

Historically, research on gender-affirming care has broadly focused on psychiatric symptoms or psychological outcomes, such as reduction in anxiety, depression or suicidality.^{17 20 22–27} While these are important considerations, this study underscores the need for a comprehensive, multidimensional approach that includes a broader range of outcomes such as chest satisfaction, body image and physical and social well-being.

Limitations

Limitations of this study include the potential for selection bias which may have preferentially drawn individuals with a positive experience with gender-affirming care, limiting the range of perspectives captured. Participants, predominantly Caucasian and from the USA and Canada, were from regions with relatively greater access to gender-affirming care. Experiences may differ in more diverse or less supportive settings. Another limitation is that this is a secondary analysis of preexisting data, and that the interviews were designed to explore gender-affirming care but not masculinizing chest surgery specifically. Future research could explore potential differences in chest surgery experiences and goals among binary transmen and non-binary-identifying individuals; and include longer term follow-up. Understanding how gender identity influences surgical expectations, satisfaction and well-being could provide further insight into the diverse needs of TGD adolescents seeking chest surgery.

CONCLUSIONS

This study highlights the important and multidimensional impact of masculinising chest surgery on TGD adolescents, documenting the impact of surgery on chest appearance satisfaction, HRQL and gender-related practices. By centring adolescents' perspectives, these findings highlight the perceived benefits of access to gender-affirming care among participants and provides valuable insights for clinicians, policymakers and future research. Expanding an understanding of individual experiences will continue to inform best practices and ensure that gender-affirming care meets the diverse needs of TGD adolescents.

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Competing interests All authors have completed the ICMJE uniform disclosure form at <http://www.icmje.org/disclosure-of-interest/> and declare: no support from any organisation for the submitted work; MNK and AFK are codevelopers of the GENDER-Q instrument, which is owned by McMaster University and Brigham and Women's Hospital and may receive a share of license revenues as royalties for its use in for-profit research based on their institution's inventor sharing policy; AFK reported receiving grants from Canadian Institutes of Health Research during the conduct of the study and reserach consulting through EVENTUM Research outside the submitted work; KK served on advisory boards or as a consultant for Tolmar; no other relationships or activities that could appear to have influenced the submitted work.

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Patient consent for publication Not applicable.

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Data availability statement All data relevant to the study are included in the article or uploaded as supplementary information. The data underlying this study are not publicly available due to ethical and privacy considerations related to the adolescent population and the qualitative nature of the interviews. Deidentified data may be made available on reasonable request to the corresponding author. Requests must include a detailed study protocol, planned use of the data and information on funding and resources. The authors reserve the right to assess the feasibility and appropriateness of each request in accordance with institutional guidelines and participant confidentiality.

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Interview Guide: Initial Interview

Date	
Participant ID	
Interview Number	
Mode of Interview	
Length of Pre-Interview Discussion	
Length of Interview	
Length of Post-Interview Discussion	
Notes	

Pre-Interview Script**NOT RECORDING**

- Introductions
- Review consent/assent form
- Review photo consent form
- Other notes (e.g., safety protocol, space for interview, parent present, etc.)
- Take photo of timeline

Question	Response	Date/Time	Notes
Do you have any questions about the study and what it involves?	Youth – Parent –		
Do you consent to participating in the study/your child participating in the study?	Youth – Parent –		
Do you have any questions about the consent form to keep/use the picture of your timeline?	Youth – Parent –		
As a thank-you for your time, you will receive a \$50 e-giftcard. What type of giftcard would you like?			

Demographic Questions

1. How do you describe your gender identity?
2. What are your pronouns?
3. What is your age?
4. What grade are you in?
5. Which racial group(s) do you belong to?
 - ☐ Black (e.g., African, Caribbean, African Canadian/American descent)
 - ☐ East Asian (e.g., Chinese, Korean, Japanese, Taiwanese descent)
 - ☐ Southeast Asian (e.g., Filipino, Vietnamese, Cambodian, Thai, Indonesian, other Southeast Asian descent)
 - ☐ Indigenous (e.g., First Nations, Metis, Inuk/Inuit)
 - ☐ Latin American (Hispanic descent)
 - ☐ Middle Eastern (e.g., Arab, Persian, Afghan, Egyptian, Iranian, Lebanese, Turkish, Kurdish)
 - ☐ South Asian (e.g., East Indian, Pakistani, Bangladeshi, Sri Lankan, Indo-Caribbean)
 - ☐ White (European/ Russian descent)
 - ☐ Another racial group
 - ☐ Prefer to not answer
6. Do you have any health conditions that have lasted at least 6 months and were diagnosed by a doctor?
 - ☐ Yes
Explain:
 - ☐ No
7. Have you had any of the following types of gender-affirming care already?
 - ☐ Puberty blockers
 - ☐ Hormone therapy
 - ☐ Voice therapy
 - ☐ Voice surgery
 - ☐ Facial surgery
 - ☐ Top surgery
 - ☐ Bottom surgery
 - ☐ Mental health care
 - ☐ Other
Explain:
8. Do you plan to have any of the following types of gender-affirming care in the future?
 - ☐ Puberty blockers
 - ☐ Hormone therapy
 - ☐ Voice therapy
 - ☐ Voice surgery
 - ☐ Facial surgery
 - ☐ Top surgery
 - ☐ Bottom surgery
 - ☐ Mental health care
 - ☐ Other
Explain:

Interview Topics**START RECORDING****Part One: Sharing the Timeline**

Thank you for creating your timeline and being willing to share it with me.

- Can you start by explaining to me what you created?
- Can you tell me more about how you were feeling while creating your timeline?
 - Were there any parts that made you feel sad?
 - Were there any parts that make you feel happy?
- Are there any other feelings that came up while creating your timeline?
- As you were creating the timeline, what part of the experience was most surprising to you?
- When you look at your timeline, what important insights (or patterns) came up for you as you created the timeline? Can you explain what these were to me?
- Can you tell me more about:
 - Timeline elements (e.g., colours, images/text, line style, spacing, etc.)
 - Time points (e.g., first moment you thought about your gender identity, telling others about this feeling/coming out, interactions with health care providers, past gender-affirming treatments, current gender-affirming treatments, future gender-affirming treatments, etc.)
 - Past treatments: expectations, process of receiving treatments, outcomes
 - Current treatments: expectations, process of receiving treatments
 - Future treatments: expectations

Part Two: Exploring HRQOL and Gender-Affirming Care Experiences

Let's talk about some things related to your **gender identity and gender expression**. But before we do this, I wanted to check in and see how you're doing?

- When did you first realize your gender identity?
- How did you feel at that time?
- What prompted you to think about it?
- Where did you learn about gender identity?
- Where did you seek out more information about it?
- Who did you talk to about it?
- When you started to recognize and understand your gender identity, how did you begin to express this gender identity?
 - Did you change how you dressed/clothing?
 - Did you change how you acted?
 - Did you have the freedom to make changes? (Or were you expected to dress or act in a certain way? If so, where did these expectations come from?)

Let's talk about some things related to your social wellbeing. But before we do this, I wanted to check in and see how you're doing?

- First, let's talk about what a typical day looks like for you, starting from when you wake up in the morning to when you go to bed at night.
 - Wake up → How do you feel in the morning when you wake up? (E.g., tired, sad, excited, happy, etc.)
 - Getting ready → What does your morning routine look like?
 - How do you feel during your morning routine/when getting ready for the day?
 - Are there any things that you avoid when getting ready in the morning? (E.g., avoid showering, avoid looking in the mirror, etc.)
 - Are there any things that you do to make getting ready easier/better? (E.g., cover the mirror, get dressed in the dark, etc.)
 - School day → What does a usual day at school look like for you?
 - How do you feel at school?
 - What is the atmosphere at your school like?
 - Do you feel safe at school?
 - Have you come out at school?
 - How are your classmates (e.g., do they use your name, pronouns)?
 - How are your teachers (e.g., do they use your name, pronouns)?
 - Are there any things you avoid at school? (E.g., using washrooms, change rooms, etc.?)
 - What do washrooms look like for you?
 - What do changerooms look like for you?
 - Are there any things that you do to make school easier/better? (E.g., blended learning, etc.)
 - After school → What kinds of things do you like to do after school?
 - How do you feel after your school day?
 - What kinds of things do you do after school? (E.g., hobbies, work, etc.)
 - Going to bed → What does your bedtime routine look like?
 - How do you feel when getting ready for bed?
 - Are there any things that you avoid when getting ready for bed? (E.g., avoid showering, avoid looking in the mirror, etc.)
 - Are there any things that you do to make getting ready easier/better? (E.g., cover the mirror, get dressed in the dark, etc.)
 - Weekends → What kinds of things do you like to do on the weekends?
- Spiritual and cultural communities (How were your experiences with these communities after coming out? Starting to receive care? Etc.)
- Have you experienced any bullying or teasing, or had any other negative experiences?
 - Probe for school, work, friends, family, dating (when appropriate), coping strategies, etc.
- Are there things you want to do in life but do not because of your gender identity?
- Did you know anybody who was experiencing similar things as you? (trans and gender-diverse support network)
- Who makes up your support system?

- Can you describe the kinds of support that you get from your system?
- How do you think your social life has changed since receiving gender-affirming care? OR How do you think your social life will change after receiving gender-affirming care?

Let's talk about some things related to your appearance. But before we do this, I wanted to check in and see how you're doing?

- How would you describe your appearance?
- What do you like about your appearance? What don't you like about your appearance?
- Do you feel like your appearance matches your gender identity? Why or why not?
- How do you think your appearance has changed since receiving gender-affirming care? OR How do you think your appearance will change after receiving gender-affirming care?
- Is there anything else about your appearance that you would like to change?

Let's talk about some things related to your body image or how you feel about your body. But before we do this, I wanted to check in and see how you're doing?

- How do you feel about your face? Body? Hair?
 - Probe for negative (self-conscious, uncomfortable, unattractive, abnormal) and positive (confident, attractive, normal), etc.
- Are there any parts of your body that bring up strong feelings?
- Do you hide or cover parts of your body or face? How? Why?
 - Probe for (1) binding/packing OR (2) stuffing/tucking
 - What does that look like for you? Can you talk me through the process?
 - How does it feel?
 - What are the things you like about it?
 - What are the things you don't like about it?
 - Are there any adverse effects?
 - How does it impact your everyday life?
 - Do you talk with anyone about it?
 - Where did you learn about it? (Or seek out more information about it?)
 - Is there anything else you can tell me about it?
 - Probe: safety concerns (if not mentioned previously)
- How do you think your body image has changed since receiving gender-affirming care? OR How do you think your body image will change after receiving gender-affirming care?

Let's talk about some things related to your mental health (psychological wellbeing). But before we do this, I wanted to check in and see how you're doing?

- How would you describe your mental health?
 - Probe for negative (anxiety, depression, irritation) and positive (happy, post-traumatic growth), etc.
- How does your mental health impact your everyday life?
 - How do you think your mental health has changed since receiving gender-affirming care? OR How do you think your mental health will change after receiving gender-affirming care?

Let's talk about some things related to your **physical wellbeing**. Before we do this, I wanted to check in and see how you're doing?

- Do you feel like your physical function matches with your gender identity?
 - Probe for mobility, strength, activities, etc.
- Have been receiving gender-affirming care:
 - How do you think your physical function has changed since receiving gender-affirming care?
 - Has your care caused any adverse effects? (E.g., do you experience any symptoms after receiving your injection?)

Let's talk about some things related to your experiences during puberty/**sexual wellbeing**. Before we do this, I wanted to check in and see how you're doing?

- What did puberty look like for you?
 - Probe: impact of menstruating
- What changes did you experience?
- How did you feel?
- How did puberty impact you and your everyday life?
- Is there anything else you want to tell me about your puberty experiences?
- Can you tell me about any concerns you have with your sexual wellbeing?
- How do you think your [sexual wellbeing/experiences of puberty] has changed since receiving gender-affirming care? OR How do you think your sexual wellbeing will change after receiving gender-affirming care?
- What do you think about having kids in the future?
- Who have you talked to anyone about having kids in the future/options for having kids?

Let's talk about some things related to your **voice**. Before we do this, I wanted to check in and see how you're doing?

- How would you describe how your voice sounds?
- What do you like about your voice? What don't you like about your voice?
- Do you feel like your voice matches your gender identity?
- How does your voice impact your everyday life?
 - Probe: talking in school, talking in public, talking on the phone, etc.
- How do you think your voice has changed since receiving gender-affirming care? OR How do you think your voice will change after you receive gender-affirming care?

Let's talk about some things related to your **experiences receiving care**. Before we do this, I wanted to check in and see how you're doing?

- Can you tell me about the first time you talked to a healthcare provider about your gender identity?
- Can you tell me about the events that led to your decision to seek gender-affirming care?
- How did you know where to go (to find a healthcare provider to talk to about your gender identity)?
 - Did you have to seek out people on your own?
 - Did someone help support you in finding HCP(s)?
- Have you experienced any barriers to accessing gender-affirming care?

- Travel to clinic, barriers related to location (finding a HCP in their area, etc.)?
- What kind of information and advice were you given by your healthcare providers?
 - Probe for amount, content, interactions, etc.
- What can healthcare providers do to make seeking/receiving gender-affirming care better for you?
- (Focus: Teen-centred care) When you go to the gender clinic:
 - Do feel the doctor/nurse listens to you?
 - Takes you seriously?
 - Gives you the chance to say what is important to you?
 - Talks to you rather than your parents?
 - Explains things in a way that is easy to understand?
 - Rush you?
 - Trust you know yourself best?
 - Get along with you?
 - Feel you can trust them?
 - Have a sense of humour?
 - Give you a chance to talk?
- Were your parents with you during the appointments?
 - Can you tell me more about that? (E.g., did you want them to be there/not to be there? How did it make you feel having them there/not having them there?)

(Transition to adult care)

- What things do you do to take care of your own healthcare?
- Do you book your own appointments?
- Do you go on your own to appointments?
- Do you drop off/pick up your own prescriptions?
- Do you make sure to ask questions that you have?

(Overall outcomes of care)

- What kinds of gender-affirming care have you had so far?
 - Probe for psychological, hormonal, surgical, etc.
- What was the recovery like from surgical care?
 - Probe for symptoms and impact on activities and daily life
- What did you like about each gender-affirming care you have had? What didn't you like?
- How happy/satisfied are you with each type of gender-affirming care you have had?
- Do you plan to have any other types of gender-affirming care in the future? If yes, which ones?

We talked about a lot of different things during the interview. Is there anything that we talked about that you think is most important? Not as important?

Is there anything that we didn't talk about that you like to share?

Part Three: Interview Debrief

Before I stop recording, I have a couple questions about the interview process that I would like to ask you. These questions are important to make sure that we are doing this research in the best way possible for you and other participants. There are no right or wrong answers – and anything that you can tell me about how you feel about the interview will help me to make it better for others.

General/Interview Process

- How are you feeling?
- How did you feel about the interview process overall?
- What parts of the interview did you like? What parts didn't you like?
- How can we change the interview to make it better?
- Is there anything else you would like to share?

Activity (Only ask if they did not complete the feedback questions pre-interview)

- Instructions
 - How did you feel about the instructions for creating your timeline? (E.g., Were they clear? Easy to understand?)
 - Are there any parts of the instructions that I should change to make them better?
- Supplies
 - How did you feel about the supplies you were sent?
 - Is there anything about the supplies that I should change to make them better?
- Activity
 - How did you feel about creating your timeline?
 - Are there any parts of the timeline activity that I should change to make the activity better?

Post-Interview Script**STOP RECORDING**

- General
 - Do you have any questions?
- Method of communication
 - Do you prefer to continue communicating by email? Or is there another method (e.g., phone call, Zoom call, etc.) that works better?

Next Steps:

- I will be sending the e-giftcard to you today – if you don't receive it by the end of the week, please let me know.
- I will follow up in about six months to schedule your next interview.
- In the meantime, can you keep a copy of your timeline safe so that we can revisit it during the next interview?
- If you have any questions or concerns at any time, please don't hesitate to contact me!

Thank you again for your time!