

# The wellbeing and health needs of a cohort of transgender young people accessing specialist medical gender-affirming healthcare in Auckland

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## ABSTRACT

**INTRODUCTION:** Increasing numbers of young people are seeking gender-affirming healthcare in Aotearoa New Zealand, and although international studies report health and wellbeing benefits of early medical intervention, we have no published reports on the impact of health services in this country.

**METHODS:** Transgender young people accessing a specialist service providing medical gender-affirming healthcare were invited to take part in a survey about their health and wellbeing.

**RESULTS:** High or very high psychological distress levels were reported by 74% of respondents, with 39% being unable to access mental health support when needed.

**DISCUSSION:** Although the proportion of transgender young people with high or very high levels of psychological distress was five times greater (74%) than for the general population of young people (14.5%) in Aotearoa New Zealand, it was not as large as the proportion found for transgender young people in a community study (86%) in which an unmet need for hormones was reported by 29%. This highlights the need for clear referral pathways to access specialist gender-affirming healthcare services in order to reduce disparities in mental health outcomes.

In the last 10 years there has been a notable increase in the numbers of young people seeking transgender care through health services in Aotearoa New Zealand and internationally.<sup>1</sup> *Transgender* is an umbrella term used to refer to people whose gender differs from their sex assigned at birth. Although the true prevalence of people who identify as transgender is unknown, data from Youth'12, a nationally representative survey of secondary school students conducted in 2012, indicated that 1.2% of students identified as being transgender and 2.5% of students were not sure.<sup>2</sup>

Existing data suggest that transgender young people face a range of issues, especially discrimination and even violence, that impact on their mental health and

wellbeing.<sup>3-5</sup> Data from the Youth'12 survey identified significant wellbeing disparities between transgender and cisgender school students with regard to depressive symptoms, suicide attempts and school bullying.<sup>2</sup> Furthermore, transgender young people have reported significant barriers to accessing appropriate healthcare at both primary and secondary care levels.<sup>1</sup> There is evidence from international studies that early medical intervention during puberty may have a positive impact on future health and wellbeing outcomes,<sup>6-8</sup> and although Aotearoa New Zealand has some well-established gender-affirming healthcare services, we have no information on the impact these services have for transgender young people in this country.

Primary healthcare services that are confident providing transgender young people with care and clear pathways for accessing a range of specialist services, including medical, surgical and psychosocial supports, are fundamental to the provision of good healthcare.<sup>9</sup> To gain a better understanding of the issues, gaps and strengths of existing health services, and with the aim of improving the health and wellbeing outcomes for transgender young people, this study surveyed a cohort of transgender young people accessing specialist medical gender-affirming healthcare in Aotearoa New Zealand.

## Aims

- To assess the health and wellbeing of transgender young people who are engaged with specialist gender-affirming health services across the Auckland region.
- To support the improvement of the health and wellbeing outcomes for transgender young people by identifying issues, gaps and strengths in current gender health services.

## Methods

The Centre for Youth Health is an Auckland regional service that offers publicly funded specialist medical gender-affirming healthcare for those aged under 20 years in the Auckland and Waitematā district health boards (DHBs) and those under 25 years in Counties Manukau DHB. Mental health for all clients is assessed as part of routine care, and referrals for support are arranged if required. All current clients and new referrals, regardless of how long they had been accessing care, were eligible and invited to enrol in this study, with the exception of those aged under 14 years, who were not eligible to give consent. Written consent was obtained and participants were invited to complete an online survey containing previously validated questions drawn from a variety of sources, including basic demographic data, body satisfaction scores and questions from existing youth health surveys (Youth'12) and adult health surveys (New Zealand Health Survey). Psychological distress was measured using the Kessler Psychological Distress Scale (K10),<sup>10</sup> a 10-item

anxiety and depression questionnaire that asks about participants' emotional state in the past four weeks.

This article presents findings for the first 100 participants of this study. Recruiting started in September 2017 and the 100th participant was recruited in October 2019. Although the survey invited participants to self-describe their gender, for the purposes of analysis their responses were grouped into "trans female," "trans male" and "non-binary."

## Statistical analysis

Contingency tables of participants' responses were analysed using Fisher's exact test to assess whether there were statistically significant differences in responses between trans female and trans male participants. Non-binary participants were excluded from these analyses due to low numbers in this group. Fisher's exact test was used due to low counts in some combinations of responses. When responses related to psychological distress were analysed, the K10 scores were dichotomised and the relative risks of "high" and "very high" distress were calculated. A score of 12 or more indicated the presence of high levels of psychological distress, and a score of 20 or more indicated very high levels. Risk ratios (RRs) were calculated to compare trans female and trans male participants, with trans female participants as the reference group. RRs higher than 1 indicate a higher risk in trans male participants than trans female participants, and RRs below 1 indicate a lower risk in trans male participants compared to trans female participants. RRs were calculated based on the ratio of incidences between the two sets of participants. The level of statistical significance was set at 0.05. For analyses that were not grouped by gender identity, the non-binary participants were included. All analyses were performed using R version 3.6.1.<sup>11</sup>

Ethics approval was granted by the Health and Disability Ethics Committee 16/CEN/147.

## Results

Over the first 25 months of the study, 147 young people were invited to take part. Six declined and 100 (71%) of those who consented completed the survey.

There was a range of descriptors that participants used to describe their gender,

but when grouped into three categories, there were more participants identifying as trans male (65%) than trans female (31%) and only four (4%) who identified as non-binary. Table 1 compares demographic data between trans female, trans male and non-binary respondents. The age range was 14 to 23 years with no difference in mean ages. There was a high rate of multiple ethnicities reported, with 142 selections made by 100 participants. When asked to identify their main ethnic group, there were significant gender differences, with more trans females being Māori and Pasifika and more trans males being NZ European.

Trans female respondents reported an awareness of their gender identity earlier, with 55% being aware of their identity before puberty compared to 35% of trans males and none of the non-binary participants. The majority of respondents had started on gender-affirming hormones and most had socially transitioned to live in their gender some or all of the time.

### Mental health

Of the 78 participants who answered the questions on psychological distress, almost three out of four (74%) had survey scores that indicated that they had experienced high or very high psychological distress within the past four weeks, with no difference between trans female and trans male respondents.

Within the past year, over half of respondents had deliberately self-harmed (56%) or had seriously thought about committing suicide (59%). Of concern, there were 15 (15%) young people who had attempted suicide within the past year. High rates of self-harm, 63% and 45%, and suicidal ideation, 63% and 48%, were reported by trans males and trans females, respectively, with no statistically significant difference between the two groups (Table 2). Twenty-six percent of trans males and 29% of trans females reported ever having attempted suicide.

Participants were asked whether they had been unable to access mental health support when needed at any time in the past year, and 39% overall (trans females 45%, trans males 35%) indicated that was true for them. The most common reasons given for being unable to access support were: not wanting

to make a fuss (19%), not knowing how to (18%), hoping that the problem would get better (17%), feeling too scared (16%), not wanting parents to know (12%) and cost (12%). Those respondents with high or very high levels of psychological distress were significantly more likely (RR 1.34, 95% CI: 1.05–1.72) to have been unable to access mental health care when needed ( $p=0.03$ ).

### Family and school

Most participants experienced a positive family environment. The majority reported that family members cared about them a lot (71%), although fewer (56%) reported that their families were supportive of their gender identity a lot (Table 3). Those participants who indicated that their families were supportive of their gender identity were 24% less likely (RR 0.76, 95% CI: 0.59–0.98) to report high levels of psychological distress ( $p=0.04$ ).

Just over half the participants were still at school (55%), and although most of those respondents felt part of their school (71%) and safe at school most or all of the time (82%), almost half (49%) reported having experienced bullying within the past year, with 7% at least once a week or more often (Table 3). Those participants who reported that they had experienced bullying within the past year at school were slightly more likely (RR 1.45, 95% CI: 1.02–2.06) to report high levels of distress ( $p=0.07$ ), but this finding was not statistically significant.

### General health

Two thirds of respondents reported their health as being good, very good or excellent (75%). Almost all participants (95%) had a primary care health team or medical centre that they accessed for general healthcare (Table 4). Only 14% reported that they had been unable to access healthcare in the past year when needed. The given reasons included: not knowing how to, unable to get transport, difficulty getting an appointment, hoping the problem would get better and cost. When asked, “How comfortable were you discussing trans-related healthcare with your general practitioner (GP) or usual doctor?” 64% of participants (73% trans female, 61% trans male) felt comfortable or very comfortable. However, less than a third of participants (30%) felt that their GP or usual doctor had enough knowledge about

**Table 1:** Demographic data for participants grouped according to gender identity.

	<b>Trans female N=31 (%)</b>	<b>Trans male N=65 (%)</b>	<b>Non-binary N=4 (%)</b>	<b>p-value</b>
Mean age (range)	18 (14–23)	19 (14–23)	18 (16–19)	0.008
<b>Main ethnic group</b>				
NZ European	12 (39)	56 (86)	3 (75)	<0.001
Māori	6 (19)	1 (2)	0	
Pasifika	8 (25)	0	0	
Asian	2 (6)	0	1 (25)	
Other	3 (11)	8 (12)	0	
<b>Sex assigned at birth</b>				
Male	31 (100)	-	0	-
Female	-	65 (100)	4 (100)	
<b>Awareness of gender identity</b>				
Before puberty	17 (55)	24 (35)	0	0.007
During puberty	11 (35)	35 (55)	1 (25)	
After puberty	3 (10)	6 (10)	3 (75)	
<b>Living in gender</b>				
No	7 (22.5)	2 (3)	2 (50)	<0.001
Some of the time	7 (22.5)	12 (19)	2 (50)	
All of the time	17 (55)	51 (78)	0	
<b>Currently taking puberty blockers</b>				
Yes	21 (68)	32 (49)	1 (25)	0.131
No	10 (32)	33 (51)	3 (75)	
<b>Currently taking oestrogen</b>				
Yes	16 (52)	-	0	-
No	15 (48)	-	4 (100)	
<b>Currently taking testosterone</b>				
Yes	-	36 (56)	0	-
No	-	29 (44)	4 (100)	
<b>Currently taking no medications, but want to start</b>				
Yes	4 (3)	6 (9)	3 (75)	0.007
No	27 (97)	59 (91)	1 (25)	

trans healthcare, and 26% had to educate their doctor about trans health. In addition, 29% of participants had not talked to their GP or usual doctor about their gender identity (Table 4).

### Discrimination

Participants were asked whether they had ever been treated unfairly or differently compared to other people, with 94% of trans females and 89% of trans males answering yes. Gender identity was identified as being the most common reason for discrimination for trans females (61%) and trans males (72%), with physical appearance (52% and 57%) and sexual orientation (40% and 46%) also common for trans females and trans males, respectively. The most common places participants experienced discrimination were school, the streets or public places and shops or restaurants. Of concern, in the past year 48% of trans females and

49% of trans males had experienced verbal abuse and 6% of trans females and 8% of trans males had experienced physical abuse because of being transgender.

Trans male, trans female and non-binary respondents who indicated they had experienced discrimination due to their gender identity in the past year were more likely (RR 1.20, 95% CI: 0.90–1.64) to report high levels of psychological distress, but this finding was not statistically significant ( $p=0.189$ ). Those respondents who experienced verbal abuse within the past year were slightly more likely (RR 1.17, 95% CI: 0.90–1.51) to report high levels of distress ( $p=0.261$ ), but this was not statistically significant either. Only two respondents who reported a history of physical abuse within the past year answered the K10 questions, so further analysis was not possible.

**Table 2:** Mental health characteristics grouped according to gender identity.

Psychological distress	Trans female N=28 (%)	Trans male N=47 (%)	Non-binary N=3 (%)	RR (TF vs TM–TF as baseline) 95% CI for RR (p-value for the RR)
None / low / moderate	7 (25)	13 (28)	0	0.96 (CI: 0.73–1.27) ( $p=0.816$ )
High / very high	21 (75)	34 (72)	3 (100)	
Self-harm	Trans female N=31 (%)	Trans male N=65 (%)	Non-binary N=4 (%)	
Not at all	17 (55)	24 (37)	3 (75)	1.40 (CI: 0.91–2.15) ( $p=0.106$ )
Yes, at least once	14 (45)	41 (63)	1 (25)	
Suicidal ideation				
Not at all	16 (52)	24 (37)	1 (25)	1.30 (CI: 0.87–1.96) ( $p=0.183$ )
Yes, at least once	15 (48)	41 (63)	3 (75)	
Suicide attempt				
Not at all	22 (71)	48 (74)	4 (100)	0.90 (CI: 0.45–1.79) ( $p=0.765$ )
Yes, at least once	9 (29)	17 (26)	0	

TF: Trans female. TM: Trans male.

**Table 3:** Reported family and school environment characteristics grouped according to gender identity.

Family N=100	Trans female N=31 (%)	Trans male N=65 (%)	Non-binary N=4 (%)	RR (TF vs TM—TF as baseline) 95% CI for RR (p-value for the RR)
<b>Cares about you</b>				
Some / a little	10 (32)	18 (28)	1 (25)	1.07 (CI: 0.80–1.42) (p=0.65)
A lot	21 (68)	47 (72)	3 (75)	
<b>Supportive of being trans</b>				
Some / a little	12 (39)	28 (43)	2 (50)	0.97 (CI: 0.67–1.41) (p=0.88)
A lot	17 (55)	37 (57)	2 (50)	
<b>School N=55</b>	<b>Trans female N=15</b>	<b>Trans male N=38</b>	<b>Non-binary N=2</b>	
<b>Feel part of school</b>				
Yes	10 (67)	27 (70)	2 (100)	1.07 (CI: 0.71–1.61) (p=0.756)
No	5 (33)	11 (30)	0	
<b>Feel safe at school</b>				
Most / all of the time	14 (93)	29 (76)	2 (100)	0.82 (CI: 0.65–1.02) (p=174)
About half or less of the time	1 (7)	9 (24)	0	
<b>Bullying—how often</b>				
Not in past 12 months or ever	9 (60)	18 (47)	1 (50)	1.32 (CI: 0.66–2.62) (p=0.429)
Once / twice / once a week or more often	6 (40)	17 (53)	1 (50)	

TF: Trans female. TM: Trans male.

**Table 4:** Primary healthcare provision for transgender young people grouped according to gender identity.

<b>Comfortable talking to GP or usual doctor about trans healthcare</b>	<b>Trans female N=30 (%)</b>	<b>Trans male N=64 (%)</b>	<b>Non-binary N=4 (%)</b>	<b>RR (TF vs TM—TF as baseline) 95% CI for RR (p-value for the RR)</b>
Very comfortable / comfortable	22 (73)	39 (61)	2 (50)	1.46 (CI: 0.75–2.90) (p=0.252)
Very uncomfortable / uncomfortable	8 (27)	25 (39)	2 (50)	
<b>GP or usual doctor had enough knowledge about trans health</b>	<b>Trans female N=31</b>	<b>Trans male N=63</b>	<b>Non-binary N=4</b>	
Yes	7 (23)	21 (33)	1 (25)	1.11 (CI: 0.52–2.35) (p=0.800)
No	5 (16)	18 (29)	1 (25)	
Don't know	19 (61)	24 (38)	2 (50)	
<b>Had to educate your GP or usual doctor about trans health</b>	<b>Trans female N=31</b>	<b>Trans male N=64</b>	<b>Non-binary N=4</b>	
Yes	7 (23)	19 (30)	0	0.87 (CI: 0.53–1.44) (p=0.620)
No	10 (32)	20 (31)	1 (25)	
Don't know	7 (23)	6 (9)	0	
Haven't talked to GP about gender	7 (23)	19 (30)	3 (75)	

## Body satisfaction

Participants were asked questions about how they felt about their bodies (Table 5). With regards to their voice, 68% of trans females and 82% of trans males indicated not feeling positive about the sound, and 74% and 88% respectively reported that they would like to alter the sound. Those participants who indicated that they didn't like the sound of their voice were much more likely (RR 1.68, 95% CI: 1.09–2.59) to report high levels of psychological distress ( $p=0.004$ ).

Only one trans female and four trans male respondents indicated that they already had chest surgery, but 77% of trans females and 100% of trans males reported that this was important to them. None of the participants had received genital surgery. Although fewer participants reported that genital surgery would be important compared to chest surgery, 80% of trans females and 56% of trans males indicated that genital surgery was important to them.

## Discussion

Transgender young people engaged with gender-affirming care in Auckland experience high levels of psychological distress, with 74% reporting high or very high distress levels. This is less than the 86% of young people in the Counting Ourselves survey,<sup>12</sup> a large online community survey of transgender people in Aotearoa New Zealand, but five times higher than the general population of young people (14.5%), as reported in health surveys.<sup>13</sup> It is encouraging that the young people accessing gender-affirming care experienced less psychological distress than the transgender young people in the community study, of whom 29% reported an unmet need for hormones.<sup>12</sup> School surveys in Aotearoa New Zealand have also identified much higher rates of poor mental health than their cisgender peers: trans students were more than three times as likely to report significant depressive symptoms (41.3% vs 11.8%).<sup>2</sup> These findings point to a clear need for young people to have greater access to transgender-competent mental health care.

In this study there was no difference in the rates of distress between trans females and trans males, and although the Counting Ourselves survey found higher rates of

distress in trans men, they also found higher rates in younger participants overall.<sup>14</sup>

Negative mental health outcomes are strongly related to the widespread experience of gender minority stressors,<sup>15</sup> and high levels of gender-based discrimination were reported in this study. Discrimination can be experienced in many forms, but as one participant explained, "It's not super obvious, just kind of side-long looks and being ignored." To address these stressors, structural change is needed at the government level to breakdown the stigma and discrimination that transgender young people face and signal that discrimination against trans people is unlawful. Change is also need at the social level by resourcing stigma-reduction measures led by trans people.<sup>12</sup>

Family and school connectedness have been shown to be strongly protective factors against experiencing distress for trans young people,<sup>16</sup> and in this study having family that were supportive of your gender identity was associated with a 25% lower rate of psychological distress. This finding suggests that initiatives to support families to understand and support their transgender young people are important for addressing these serious mental health inequities.

Poor access to mental health care was associated with higher levels of distress in this study. Primary care is well placed to assess mental health and facilitate referral for support, provided that transgender young people feel comfortable to disclose their concerns. Providing education resources for primary care clinicians is necessary, so that they have the skills to address trans health needs, particularly given the increasing demand for gender-affirming healthcare and the near universal access to this part of the health sector. In this study, 29% of participants hadn't talked to their GP about their gender identity and only 30% felt that their GP had enough knowledge about trans health.

Access to secondary healthcare services, including voice therapy and gender-affirming surgeries, was also important. Respondents who did not feel comfortable with the sound of their voice were significantly more likely to report high levels of psychological distress. Provision of voice

**Table 5:** Reported levels of body satisfaction grouped according to gender identity.

Body satisfaction	Trans female N=30 (%)	Trans male N=64 (%)	Non-binary N=4 (%)	RR (TF vs TM—TF as baseline) 95% CI for RR (p-value for the RR)
Had chest surgery	1 (3)	4 (6)	0	-
<b>Chest surgery important*</b>				
Quite a lot / very much / completely true	23 (77)	64 (100)	1 (25)	
Not at all / a bit	7 (23)	0	3 (75)	
<b>Genital surgery important</b>				
Had genital surgery	0	0	0	
Quite a lot / very much / completely true	24 (80)	36 (56)	0	2.19 (CI: 1.02–4.71) (p=0.026)
Not at all / a bit	6 (20)	28 (44)	4 (100)	
	<b>Trans female N=31 (%)</b>	<b>Trans male N=65 (%)</b>	<b>Non-binary N=4 (%)</b>	
<b>Voice—like sound</b>				
Quite a lot / very much / completely	10 (32)	12 (18)	0	1.20 (CI: 0.92–1.58) (p=0.149)
A bit true / not at all	21 (68)	53 (82)	4 (100)	
<b>Voice—like to alter the sound</b>				
Quite a lot / very much / completely	23 (74)	57 (88)	3 (75)	0.48 (CI: 0.20–1.15) (p=0.116)
A bit true / not at all	8 (26)	8 (12)	1 (25)	

\*RR could not be calculated due to the 100% for trans males.

therapy is inconsistently funded, with publicly funded access in some district health boards but not others. Equitable access to this important aspect of gender-affirming healthcare is urgently required. However, because almost all participants felt that accessing chest surgery was important, the statistical power to detect a difference between the two groups was low, so no evidence of a difference in psychological distress between those who did and did not want to access chest surgery could be detected.

A limitation of this study was that the survey only captured information from one point in time for the participants and was not able to report on whether levels of psychological distress improved after accessing gender-affirming healthcare. The very large disparity between levels of distress for participants in both this study and the Counting Ourselves survey compared to the general population of young people suggests that broader social determinants, such as discrimination and gender minority stress, might also be important contributors to these disparities, alongside the barriers to accessing gender-affirming care. Change is urgently needed so that all transgender young people

in Aotearoa New Zealand can thrive and achieve their full potential. The findings of this study cannot be generalised to all young trans people in Auckland or Aotearoa New Zealand. Nevertheless, these findings represent over 70% of the young people aged over 13 years who had accessed a specialist service providing medical gender-affirming healthcare in Auckland over a two-year timeframe (2017–2019).

## Conclusion

This is the first study to explore the wellbeing of a cohort of transgender young people accessing specialist medical gender-affirming healthcare in Aotearoa New Zealand. Our findings indicate that, while high levels of psychological distress are being experienced, they are not quite as high as those experienced by transgender young people in a community study where an unmet need for care was reported.

Education for primary care on the health needs of transgender young people, clear referral pathways for accessing specialist gender-affirming healthcare services and increased access to mental health support are urgently needed to address the high levels of psychological distress reported by transgender young people.

**Competing interests:**

Nil.

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