

# Unmet need for gender-affirming care as a social determinant of mental health inequities for transgender youth in Aotearoa/New Zealand

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The use of ethnicity prioritization means that anyone with Māori ancestry (indigenous people of Aotearoa/New Zealand) is grouped as Māori, anyone with Pasifika ancestry (Indigenous peoples of Pacific Islands) who is not Māori is grouped as Pasifika, anyone with Asian ancestry who is not Māori or Pasifika is grouped as Asian, anyone with another ancestry other than Pākehā/New Zealand European is grouped as Other, and people who have only Pākehā/New Zealand European ancestry are grouped as such.

## ABSTRACT

**Background** Past studies have demonstrated better mental health and well-being among transgender youth who had accessed gender-affirming care. However, few existing studies have assessed unmet need for gender-affirming care as a social determinant of mental health inequities.

**Methods** Data on unmet need for gender-affirming care, distress and suicidality were analysed from the 2018 Counting Ourselves nationwide community-based survey of transgender people in Aotearoa/New Zealand. Associations between unmet need for gender-affirming care and mental health indicators were tested for transgender youth within the sample (aged 14–26 years;  $n = 608$ ;  $M_{age} = 20.5$ ).

**Results** Transgender youth reported unmet needs ranging from 42% for gender-affirming hormone to 100% for feminizing surgeries and voice surgeries. Overall unmet need for gender-affirming care was associated with worse mental health. Trans men with an unmet need for chest reconstruction (84%) scored an average of 7.13 points higher on the K10 Psychological Distress Scale relative to those whose need had been met. Participants reporting unmet need for hormones (42%) had twice the odds (adjusted odds ratios = 2.01; CI = 1.02–3.98) of having attempted suicide in the last 12 months.

**Conclusions** Dismantling barriers to accessing gender-affirming care could play a crucial role in reducing mental health inequities faced by transgender youth.

**Keywords** gender-affirming care, gender-affirming hormones, mental health, suicide, transgender, youth

## Introduction

In this article, we use the umbrella term ‘transgender’ to refer to people who identify their gender as different from society’s expectations based on their sex assigned at birth; this includes trans women, trans men and people with non-binary genders. International research has uncovered stark inequities for transgender youth in terms of mental health difficulties (e.g. psychological distress, self-harm and suicidality).<sup>1–3</sup> Scholars have described the heightened rates of suicidality among transgender youth as a ‘public health crisis’.<sup>4</sup> Studies that integrate a life-course development perspective<sup>5</sup> have found transgender youth not only experience higher levels of mental health difficulties than the general population but

also compared with older transgender people.<sup>6,7</sup> Evidence from these studies points toward a strong need to understand the determinants of mental health for transgender youth as a vulnerable group.

Transgender identity is a social determinant of health<sup>8</sup> because of the pervasive societal and institutional cisgenderism that assumes that there are two immutable genders (i.e. man and woman) and discriminates against individuals who do not conform to cisgender expectations.<sup>9</sup> Consequently,

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cisgenderism produces differential levels of social exclusion across health care, employment, social service and educational settings for transgender youth.<sup>9</sup>

While not all transgender individuals desire medical gender-affirmation, this group experiences specific barriers to gender-affirming care that are known to elevate the risk of mental health difficulties.<sup>10</sup> Within the scant number of studies on mental health experiences of transgender youth accessing gender-affirming care, researchers from a cross-sectional community-based study in the US found a correlation between the use of gender-affirming hormones and lower levels of depression and suicidal ideation.<sup>11</sup> Furthermore, longitudinal clinical studies in the US have observed a significant improvement in general well-being and a decrease in levels of depression and suicidality among transgender youth who had received gender-affirming hormones to develop desired secondary physical characteristics.<sup>12,13</sup> Mental health improvements after accessing gender-affirming care are also reported in adult samples. A US study reported transgender adults who accessed gender-affirming hormones during adolescence also had lower risk of reporting suicidal ideation relative to those who accessed hormones during adulthood.<sup>14</sup> A Swedish study found that transgender adults who had undertaken gender-affirming surgeries had reduced utilization of mental health treatments.<sup>15</sup> Moreover, a recent systematic review of 53 studies indicated that transgender people who had accessed gender-affirming surgeries had reduced rates of depression, anxiety and suicide attempts.<sup>16</sup> The review, however, did not include any studies from Aotearoa/New Zealand.

In Aotearoa, gender-affirming non-surgical medical steps (e.g. hormones and voice therapies) can be accessed via primary care clinics or through referrals to local public hospitals.<sup>17,18</sup> However, no public hospitals in this country provide comprehensive gender-affirming care, with most surgeries unavailable and long waiting lists for the limited surgeries that are performed (e.g. chest reconstruction).<sup>19</sup> Transgender people often have to travel to another region to access desired primary care or pay to see private specialists.<sup>19,20</sup> The waiting list for gender-affirming genital surgeries remains decades long.<sup>18</sup>

We have identified two gaps in the literature on the association of mental health and gender-affirming care for transgender youth. First, most existing studies on this topic have focused solely on mental health improvements after accessing gender-affirming hormone.<sup>15–17</sup> Second, we are not aware of any research that has framed unmet need or barriers to accessing gender-affirming care as a social determinant of mental health inequities for transgender youth. This approach has been important in a country such as Aotearoa where

very limited public funding for gender-affirming healthcare is compounded by almost no private insurance coverage for these costs. This analysis of the levels of unmet health needs and related mental health costs has helped build the case for greater public funding for gender affirming healthcare in Aotearoa. Historically, the pathologisation of transgender people's mental health labelled gender diversity as a mental illness. Depathologisation aligns with the public health understanding that social determinants of mental health inequities (or risk factors) contribute to heightened rates of mental health difficulties among transgender youth.<sup>21</sup>

To address the literature gap, we present analyses from the first nationwide community-based study of the health and well-being of transgender people in Aotearoa/New Zealand—the 2018 Counting Ourselves survey. The aim of this article is to enhance the evidence base around gender-affirming care as a determinant of mental health by testing the relationship of unmet need for specific gender-affirming care and the levels of subjective well-being, psychological distress, non-suicidal self-injury (NSSI) and suicidality among transgender youth (those aged 14–26 years old).

## Method

### Procedure

The Counting Ourselves survey was granted ethical approval from the New Zealand Health and Disability Ethics Committee (18/NTB/66/AM01). The survey was open for participation for transgender people aged at least 14 years old from June to September 2018. The researchers utilized a wide range of recruitment strategies to increase diversity of transgender representation; these included building relationships with transgender community groups, connecting with networks of health professionals and academic researchers interested in transgender health and inviting community leaders from Māori, Pasifika, Asian and disability groups to share statements on social media about the importance of the survey. Most participants (99%) elected to respond to the survey online (via Qualtrics), whereas others provided written responses on a paper version of the survey. More details of the survey methods can be read from the community report.<sup>20</sup>

## Measures

### Sociodemographic factors

#### Gender

The two-step method<sup>22</sup> was employed to categorize participants into four gender groups based on their response to two questions: (i) self-defined gender 'What gender or what

genders do you currently identify with? Mark all that apply' and (ii) sex assigned at birth 'What sex were you assigned at birth, for example on your original birth certificate?'. Trans women were those participants who selected woman, trans woman, transsexual or indigenous terms *tangata ira wahine* or *whakawahine* as their current gender and who were assigned male at birth (AMAB). Trans men were participants who selected man, trans man, transsexual or the indigenous term *tangata ira tāne* and who were assigned female at birth (AFAB). Other participants were either grouped as non-binary people AFAB or non-binary people AMAB and included those who selected their current gender as genderqueer, gender fluid, bigender, pangender or non-binary. Non-binary participants were split by sex assigned at birth because of different gender affirming care needs between these groups.

### Ethnicity

Participants were asked 'Which ethnic group or groups do you belong to? Mark all that apply'. The Ministry of Health's prioritized ethnicity protocol was used to generate a nominal variable for participants selecting more than one ethnicity, with Māori, Pasifika, Asian, Other and Pākehā/New Zealand European ethnicities prioritized in that order.<sup>23</sup>

### Region

Participants were asked to provide their postcode details, and they were categorized into one of Aotearoa regions (first level of local government) based on this response.

### Education qualification

Participants were asked 'What is your highest completed qualification?'. Response options were assembled into four ordinal categories: none, Levels 1–5 certificates (including high school qualifications), Levels 6 and 7 (diploma and bachelor's degree) and Level 8 and above (postgraduate diploma, master's degree and doctoral degree).

### Deprivation index

A series of six questions was used from the New Zealand General Social Survey<sup>24</sup> to assess material deprivation. Participants were asked: 'in the last 12 months, to what extent have you gone without fresh fruit or vegetables'; 'postponed or put off visits to the doctor'; 'done without, or cut back on, trips to the shops'; 'spent less on hobbies'; 'put up with feeling cold' and 'delayed replacing, or repairing, broken or damaged appliances to keep costs down'. Response options included not at all (0), a little (1), a lot (2) and do not know. Responses of 'do not know' were treated as missing.

### Gender-affirming care

The research team adapted a question from the 2015 US Transgender Survey<sup>7</sup> to assess the types of health care transgender people utilize to affirm gender. Participants were asked 'Have you had or do you want any of the healthcare listed below to affirm your gender?'. See Table 1 for the list of gender-affirming care and response options provided for participants. In this study, participants who selected 'I want this but have not had it' were classified as having an unmet need for the corresponding type of gender-affirming care.

### Mental health outcomes

#### Life dissatisfaction

Participants were asked an item from the OECD subjective well-being measures:<sup>25</sup> 'Overall, how satisfied are you with life as a whole these days?'. Response options range from very satisfied (0) to very dissatisfied (4).

#### Psychological distress

The Kessler Psychological Distress Scale (K10) was used to identify the presence of non-specific psychological distress symptoms (including depression and anxiety) in the last 4 weeks.<sup>26</sup> For example, participants were asked to rate how often they felt lonely, tired or hopeless from none of the time (0) to all of the time (3). Total scores range from 0 to 40, and the internal consistency of K10 was high ( $\alpha = 0.92$ ) in this sample of transgender youth.

#### Non-suicidal self-injury

Participants were asked an item from the Aotearoa/New Zealand Youth'12 survey:<sup>2</sup> 'During the last 12 months, have you deliberately hurt yourself or done anything you knew might have harmed you (but not kill you)?' with response options from not at all (0) to more than five times (4).

#### Suicidality

Participants were asked two questions from the Youth'12 survey<sup>2</sup> on suicidal ideation 'In the last 12 months, have you seriously thought about killing yourself (attempting suicide)?' and on suicide attempts 'In the last 12 months, have you tried to kill yourself (attempted suicide)?'. Response options were not at all (0), once or twice (1) and three or more times (2).

### Participants

A total of 654 youth participants aged 14–26 commenced the survey and the completion rate was relatively high on the gender-affirming care (93.0%) and mental health (74.0%) sections. The Counting Ourselves survey consisted of more

**Table 1** Total demand and unmet need of each gender-affirming care among Aotearoa/New Zealand Counting Ourselves participants aged 14–26

	<i>Have had this and paid for it myself n (%)</i>	<i>Have had this and did not pay for it myself n (%)</i>	<i>Want this but have not had it n (%)</i>	<i>Not sure if I want this n (%)</i>	<i>Do not want this n (%)</i>	<i>Total demand<sup>a</sup> n (%)</i>	<i>Unmet need<sup>b</sup> n (%)</i>
<b>Non-surgical gender-affirming steps</b>							
Hormone ( <i>n</i> = 604)	112 (18.5)	111 (18.4)	163 (27.0)	118 (19.5)	100 (16.6)	386 (63.9)	163 (42.2)
Voice therapy ( <i>n</i> = 600)	3 (0.5)	9 (1.5)	180 (30.0)	145 (24.2)	263 (43.8)	192 (32.0)	180 (93.8)
<b>Gender-affirming surgeries</b>							
Chest reconstruction surgery ( <i>n</i> = 452) <sup>c</sup>	22 (4.9)	27 (6.0)	250 (55.3)	89 (19.7)	64 (14.2)	299 (66.2)	250 (83.6)
Breast augmentation ( <i>n</i> = 153) <sup>d</sup>	1 (0.7)	0	50 (32.7)	56 (36.6)	46 (30.1)	51 (33.3)	50 (98.0)
Hysterectomy/oophorectomy ( <i>n</i> = 448) <sup>c</sup>	0	10 (2.2)	214 (47.8)	123 (27.5)	101 (22.5)	224 (50.0)	214 (95.6)
Orchidectomy ( <i>n</i> = 153) <sup>d</sup>	2 (1.3)	2 (1.3)	54 (35.3)	50 (32.7)	45 (29.4)	58 (37.9)	54 (93.1)
Genital reconstruction surgery ( <i>n</i> = 604)	2 (0.3)	2 (0.3)	147 (24.3)	197 (32.6)	256 (42.4)	151 (25.0)	147 (97.4)
Facial feminizing surgeries ( <i>n</i> = 153) <sup>d</sup>	0	0	57 (37.3)	51 (33.3)	45 (29.4)	57 (37.3)	57 (100.0)
Voice surgery ( <i>n</i> = 591)	0	0	52 (8.8)	174 (29.4)	365 (61.8)	52 (8.8)	52 (100.0)
Tracheal shave ( <i>n</i> = 154) <sup>d</sup>	1 (0.6)	1 (0.6)	37 (24.0)	52 (33.8)	63 (40.9)	39 (25.3)	37 (94.9)

<sup>a</sup>Notes: Total demand = proportion of participants who wanted to access the specific gender-affirming care, including those who had it or had wanted but have not had it. Denominator included all participants.

<sup>b</sup>Unmet need = proportion of participants who wanted to access the specific gender-affirming care but have not had it. Denominators excluded those who were unsure or did not want to access the specific healthcare.

<sup>c</sup>Among trans men and non-binary people AFAB.

<sup>d</sup>Among trans women and non-binary people AMAB.

than 330 questions,<sup>14</sup> so the risk of participant attrition was higher towards the end of the survey. Table 2 displays the demographic characteristics of participants who completed the gender-affirming care section (*n* = 608). The mean age of our sample was 20.52 (SD = 3.52). About half were classified as non-binary (48.2% with 90.8% of these AFAB), followed by trans men (33.7%) and trans women (18.1%). A majority of participants were Pākehā (White/European; 76.6%), living in the North Island (75.8% including 29% in Auckland and 28% in Wellington) or had at least Levels 1–5 certificates (74.4%).

## Data analysis

All analyses were conducted in IBM SPSS Statistics version 28. The proportion of missing values was 1.6% for highest education qualification, and ranged from 0 to 7.9% for items on the K10 scale and from 5.7 to 9.7% for items on the deprivation index. We employed the expectation maximisation method<sup>27</sup> to impute missing values for K10 based on means and covariances of existing items in the scale, and to impute missing values for education qualification and deprivation based on related socioeconomic variables (income and employment status).

Next, we performed chi-square goodness of fit tests to identify if unmet need for non-surgical gender-affirming steps

and gender-affirming surgeries differed significantly across sociodemographic variables. The mental health outcomes including K10 (linear regression) and life satisfaction, NSSI and suicidality (ordinal logistic regressions) were compared between those with met need versus unmet need for specific gender-affirming care through generalized linear regression models and reporting adjusted odds ratios (aOR). The specific types of gender-affirming care that we examined were gender-affirming hormones and chest reconstruction. These were the only examples where more than 30 participants reported a met need, enabling adequate statistical power to detect a true difference between those who accessed these interventions and those who had an unmet need.<sup>28</sup>

## Results

More than three-fifths had demands for gender-affirming hormones (63.9%) or chest reconstruction (66.2%) (among participants AFAB). Two-fifths (42.2%) had an unmet need for gender-affirming hormones and more than four-fifths (83.6%) had an unmet need for chest reconstruction. The total demand and unmet need for specific types of gender-affirming care among transgender youth are shown in Table 1.

Statistically significant differences in unmet need for gender-affirming non-surgical medical steps (including

**Table 2** Demographic characteristics for unmet need for gender-affirming interventions and surgeries among Aotearoa/New Zealand Counting Ourselves participants aged 14–26

	<i>Met need, unsure or did not want (%)</i>	<i>Unmet need for non-surgical gender-affirming steps<sup>b</sup> (%)</i>	<i>Unmet need for surgeries only<sup>c</sup> (%)</i>	
<b>Gender</b>				<b><math>\chi^2(6) = 133.65, P &lt; 0.001</math></b>
Trans women ( <i>n</i> = 110)	11 (10.0)	73 (66.4)	26 (23.6)	
Trans men ( <i>n</i> = 205)	10 (4.9)	99 (48.3)	96 (46.8)	
Nonbinary AFAB ( <i>n</i> = 248)	100 (40.3)	71 (28.6)	77 (31.0)	
Nonbinary AMAB ( <i>n</i> = 45)	24 (53.3)	16 (35.6)	5 (11.1)	
<b>Age</b>				<b><math>\chi^2(2) = 37.60, P &lt; 0.001</math></b>
14–17 ( <i>n</i> = 145)	32 (22.1)	91 (62.8)	22 (15.2)	
18–26 ( <i>n</i> = 463)	73 (15.8)	168 (36.3)	182 (39.3)	
<b>Ethnicity</b>				$\chi^2(6) = 4.22, P = 0.647$
Māori ( <i>n</i> = 85)	21 (24.7)	37 (43.5)	27 (31.8)	
Pasifika ( <i>n</i> = 20)	4 (20.0)	12 (60.0)	4 (20.0)	
Asian ( <i>n</i> = 24)	8 (33.3)	9 (37.5)	7 (29.2)	
European and others ( <i>n</i> = 479)	112 (23.4)	201 (42.0)	166 (34.7)	
<b>Region</b>				$\chi^2(6) = 10.36, P = 0.110$
Auckland ( <i>n</i> = 174)	44 (25.3)	72 (41.4)	58 (33.3)	
Wellington ( <i>n</i> = 168)	48 (28.6)	57 (33.9)	63 (37.5)	
Other North Island ( <i>n</i> = 113)	20 (17.7)	56 (49.6)	37 (32.7)	
South Island ( <i>n</i> = 146)	31 (21.2)	70 (47.9)	45 (30.8)	
<b>Education qualification</b>				<b><math>\chi^2(6) = 12.64, P = 0.049</math></b>
None ( <i>n</i> = 41)	4 (9.8)	29 (70.7)	8 (19.5)	
Levels 1–5 certificate ( <i>n</i> = 283)	64 (22.6)	114 (40.3)	105 (37.1)	
Levels 6 and 7 diploma and bachelor ( <i>n</i> = 74)	20 (27.0)	26 (35.1)	28 (37.8)	
Level 8 and above postgraduate degree ( <i>n</i> = 37)	13 (35.1)	13 (35.1)	11 (29.7)	
<b>Deprivation scores<sup>a</sup></b>				$\chi^2(6) = 8.97, P = 0.175$
0 ( <i>n</i> = 35)	9 (25.7)	17 (48.6)	9 (25.7)	
1–3 ( <i>n</i> = 77)	27 (35.1)	28 (36.4)	22 (28.6)	
4–7 ( <i>n</i> = 153)	35 (22.9)	63 (41.2)	55 (35.9)	
8–12 ( <i>n</i> = 168)	32 (19.0)	73 (43.5)	63 (37.5)	

Notes: Assigned female at birth = AFAB; Assigned male at birth = AMAB.

<sup>a</sup>A higher score indicates more deprived access to fresh fruit or vegetables, visits to the doctor, trips to the shops, spend less on hobbies, put up with feeling cold and delayed repairing damaged appliances.

<sup>b</sup>This group included participants who reported experiencing unmet need in at least 1 of the following interventions: hormone treatment and voice therapy and no unmet need in gender-affirming surgeries.

<sup>c</sup>This group included participants who reported experiencing unmet need in at least 1 of the following surgeries: mastectomy, breast augmentation, hysterectomy, orchidectomy, genital construction surgeries, facial feminizing surgeries, voice surgeries and tracheal shave.

hormones and voice therapies) and surgeries were found across age, gender and education qualification for participants (see Table 2). There was a higher likelihood of unmet needs of non-surgical medical steps among the younger age group (aged 14–17 years old) (62.8%), trans women (66.4%) and participants with no education qualification (70.7%). Participants aged 18 and 26 years old (39.3%) and trans men

(46.8%) were more likely to report experiencing unmet need for gender-affirming surgeries.

Table 3 details the multivariate regression results of associations between unmet need for gender-affirming care and mental health variables. Bivariate findings can be found in the online supplementary file (Supplementary Table S1). Compared with participants whose need for chest reconstruction

**Table 3** Mental health differences between Aotearoa/New Zealand Counting Ourselves participants aged 14–26 who reported unmet need for specific gender-affirming care and those with met need in multivariate models

	<i>K10 psychological distress</i>	<i>Life dissatisfaction</i>	<i>NSSI</i>	<i>Suicidal ideation</i>	<i>Suicide attempt</i>
	<i>B [95% CI]</i>	<i>OR [95% CI]</i>	<i>OR [95% CI]</i>	<i>OR [95% CI]</i>	<i>OR [95% CI]</i>
Hormone treatment	5.13 [2.93–7.32]**	2.05 [1.80–4.82]**	1.70 [1.05–2.77]*	1.40 [0.85–2.31]	2.01 [1.02–3.98]*
Chest reconstruction surgery	7.13 [4.02–10.25]**	2.03 [1.01–4.08]*	2.15 [1.03–4.49]*	2.36 [1.17–4.76]*	2.54 [0.69–9.36]

Notes: Participants who reported have had the specific gender-affirming care (met need) were set as the reference group. Multivariate analyses included age (continuous), gender groups and education qualification as covariates.

\* $P < 0.05$ ; \*\* $P < 0.001$ .

was met (reference group), multivariate analyses that adjusted for age, gender and education qualification showed those experiencing an unmet need scored an average of 7.13 (CI = 4.02–10.25) points higher on the K10 scale from a linear regression of this variable and had over twice the odds of reporting life dissatisfaction (aOR = 2.03; CI = 1.01–4.08), NSSI (aOR = 2.15; CI = 1.03–4.49) and suicidal ideation (aOR = 2.36; CI = 1.17–4.76) in logistic regressions. A statistically significant difference was also found for participants with an unmet need for gender-affirming hormones, who scored 5.13 (CI = 2.93–7.32) points higher on the K10 scale and had twice the odds of attempting suicide (aOR = 2.01; CI = 1.02–3.98) in the last 12 months than those who had accessed hormones.

## Discussion

### Main findings of this study

Transgender youth in Aotearoa reported concerning high rates of unmet need for all forms of gender-affirming care. Even when procedures are technically available and in some cases promoted through trans health pathways (e.g. for accessing hormones and chest reconstruction),<sup>29</sup> large unmet need persists. The almost universal experience of unmet need for most surgeries is likely to reflect the absence of public funding for some (e.g. facial feminization and breast augmentation), decade long waiting lists for genital reconstruction and reluctance to perform surgeries that would result in infertility on younger people.<sup>30,31</sup>

Findings from the analyses presented in this article contribute to the fledgling literature on the mental health status of transgender youth who experience an unmet need for gender-affirming care. We found statistically and clinically significant effect size differences across all mental health variables between participants with met and unmet needs for specific aspects of gender-affirming care. These were especially true

for gender-affirming hormones and chest reconstruction with an average of 5 points increase on the K10 scale found; these translate to a risk of a more severe psychological distress level.<sup>32</sup>

Unmet need for chest reconstruction among AFAB transgender youth was also significantly associated with life dissatisfaction, NSSI and suicidal ideation. Unmet need for gender-affirming hormones was significantly associated with all mental health variables, except for suicidal ideation. We found transgender youth with unmet need for hormones had twice the odds of attempting suicide in the last 12 month.

### What is already known on this topic

Past studies have detailed prominent barriers that hinder transgender youth from accessing timely gender-affirming care; these include high cost, low availability of services, lack of healthcare providers who deliver culturally safe care and gatekeeping practices that require transgender youth to fulfil certain criteria (e.g. completing a mental health assessment) before being offered a referral.<sup>33,34</sup> These barriers are also evident in Aotearoa/New Zealand through an analysis of gender-affirming care provision across public hospitals<sup>19</sup> and a qualitative study of transgender youth,<sup>31</sup> which explain the high rates of unmet need for a range of gender-affirming care (42–100%) among transgender youth in this study.

### What this study adds

Internationally, there is limited large-scale community-based research on the issue of unmet need for gender-affirming care among transgender youth to meet their individual gender embodiment goals. A Canadian study reported only 14% of transgender youth aged 14–24 ( $n = 991$ ) had their needs for gender-affirming care met.<sup>35</sup> In the current study of 654 transgender youth aged 14–26 in Aotearoa, only two interventions had more than 10% needs met and these were hormones

(57.8%) and chest reconstruction (16.4%). In a US study of 9019 transgender youth aged 13–24, half (50%) reported having an unmet need for gender-affirming hormones,<sup>11</sup> which is slightly higher than the unmet need (42.2%) reported in this study. Similar to Green *et al.*<sup>11</sup> that found older transgender youth and trans men had higher rates of receiving gender-affirming hormones, there were higher rates of unmet need for non-surgical medical step (including hormones and voice therapies) among those who were younger (aged 14–17) or identified as trans women in this sample. Our study provided more context than previous studies by revealing higher rates of unmet need for gender-affirming surgeries among older transgender youth (aged 18–26) or trans men.

While other research has looked at the association between accessing gender-affirming care and mental health, ours is one of the first studies to look specifically at the relationship between unmet need for gender-affirming care and mental health. Our study provides novel findings on unmet gender-affirming care as a social determinant of mental health inequities for transgender youth in the context of a public healthcare system that has untenable waiting lists for many aspects of gender-affirming care and no provision of other procedures.<sup>17,18</sup> A focus on social determinants allows us to identify structural interventions required to reduce the mental health gaps that exist between transgender youth and their cisgender counterparts.<sup>8,36</sup>

Privately funded access to local and overseas gender-affirming care may not be a viable option for transgender youth, particularly those with less financial autonomy. Overseas studies show that transgender youth were also more likely to avoid accessing gender-affirming care because of fear of discriminatory encounters or when family members were not supportive of their path to gender affirmation.<sup>11,34</sup>

The recognition of gender-affirming care as a social determinant of mental health aligns with the human rights approach that all transgender youth have the right to highest attainable standard of healthcare, including gender-affirming care.<sup>37</sup> The New Zealand Government's Budget 2022 announcement of \$2.1 million investment for transgender health initiatives included funding to develop guidelines for health providers based on informed consent models that acknowledges transgender people's self-determination as the experts of their own lives.<sup>17</sup> This was welcomed by transgender health experts.<sup>38</sup> However, there are minimal signals of efforts to address transgender health inequities in Aotearoa's recent major restructuring of public health services. While advocates recommended the development of national LGBTQIA+ and transgender health strategies, the parliamentary Select Committee opted to not include this in the new law. Instead, the committee noted a possibility for

such strategies to be developed outside of those prescribed in law.<sup>39</sup> Our findings provide timely support for the call to ensure that transgender people are identified as a priority population and greater resources are dedicated to gender-affirming care.<sup>38,39</sup>

### Limitations of this study

The interpretability of our findings is limited to a cross-sectional design that precludes making a causal deduction about the relationship between unmet need for gender-affirming care and mental health difficulties. It is possible that transgender youth with higher levels of mental health difficulties face additional barriers to accessing gender-affirming care—such as, fear, cost, not having the information that they need or being told by a health professional that they cannot access gender-affirming care because of their mental health. Except on the rare occasions where mental health difficulties impact a person's capacity to consent to this care, people with mental health issues should have equal ability to access gender-affirming care.<sup>40</sup>

Because of the small sample size of participants accessing some gender-affirming surgeries (e.g. genital surgeries), we could not analyse the mental health differences between those with a met need and an unmet need for all types of gender-affirming care interventions. Given overseas research has found the mental health benefits for transgender people who have had genital surgeries,<sup>15,16</sup> factors such as the lower availability of specialists offering these services (compared with the availability of hormones often through primary care providers), the lack of pathways and high unmet need for such surgeries in Aotearoa/New Zealand are likely to lead to considerable negative mental health impacts.

### Conclusions

This study provides vital novel evidence about the relationship between mental health variables and worryingly high levels of unmet needs for the range of aspects of gender-affirming care for transgender youth in Aotearoa/New Zealand. Our findings provide an example of the level of unmet needs in a country with publicly subsidized health care and expands on past research in countries where access to gender-affirming care is dominated by funding through health insurance. The findings demonstrate that transgender youth are more likely to experience distress and life dissatisfaction if they have any unmet needs. In addition, specific unmet needs around gender-affirming hormones and chest reconstruction (for trans men and non-binary AFAB) appear to also relate to likelihood of NSSI and suicidality. These findings emphasize the need to overcome barriers that lead to these unmet needs,

and future research is urgently needed to examine global patterns of unmet needs and way of increasing access to gender-affirming care and improving mental health equity for transgender youth.

## Supplementary data

Supplementary data are available at the *Journal of Public Health* online.

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## Conflict of interest

We have no conflicts of interest to disclose.

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