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Barriers to Possessing Gender-Concordant Identity Documents are Associated with Transgender and Nonbinary People's Mental Health in Aotearoa/New Zealand

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ABSTRACT:

Purpose*: This study sought to expand on previous scholarship focused on gender-concordant identity documents (IDs) as a social determinant of health. We examined the association between barriers to legal gender recognition and the mental health of transgender and nonbinary people in Aotearoa/New Zealand.*

Methods*: We used data from a 2018 nationwide community-based survey of trans and nonbinary people in Aotearoa (N= 818). Variables of investigation included: gender-concordant IDs, mental health (past-month psychological distress, past-year nonsuicidal self-injury, past-year suicidality) and barriers to changing gender markers on a birth certificate or passport. Associations between gender-concordant IDs and mental health were determined using generalized linear regression models.*

Results*: In total, 34.8% reported the correct name on all of their IDs. The proportion with the correct gender marker on both birth certificates and passports was 16.0%. Participants with gender-concordant IDs were more likely to be older, have higher levels of income and education, and have had genital reconstruction. In addition, 68.7% of participants reported experiencing at least one barrier to changing gender markers on their IDs, and these participants had significantly higher average points of psychological distress scores (b = 2.39) and greater odds of suicidal ideation (odds ratio = 2.02) than those with gender-concordant IDs, after adjusting for sociodemographic variables.*

Conclusion*: We present novel findings on higher levels of mental health problems among trans and nonbinary people who faced barriers in trying to obtain gender-concordant IDs compared with those with gender-concordant IDs. Removing barriers to legal gender recognition may be an effective way to improve mental health.*

KEYWORDS: legal name, legal gender marker, legal gender recognition, transgender, mental health

Introduction

Increasing evidence has elucidated the importance of gender affirmation for the mental health of trans and nonbinary people.[1–4] For example, a U.S. study that recruited trans and nonbinary youth between 2011 and 2012 found that participants who were able to use their chosen name (that aligned with their gender identity) at home, school, and among friends had lower mental health risks, such as decreased depression and suicidality.[5] For many trans and nonbinary people, a crucial process of gender affirmation involves legal gender affirmation (i.e., changing identity documents (IDs) to reflect their correct name and gender marker),[6,7] but there remain limited studies on legal gender recognition as a social determinant of health.

Lack of access to IDs with the correct gender marker has been described by the World Health Organization as one of the structural and social inequalities that can result in multiple co-occurring health problems among trans and nonbinary people, including depression, suicidal ideation, and suicide attempts.8 Legal gender recognition has been identified as a critical enabler to overcome these socio-structural factors and improve health outcomes for trans and nonbinary people.[9] IDs are needed to navigate many areas of a person's life, including access to education, employment, and health services. They have also been conceptualized as a structural determinant of health, because they are a structural mechanism that socially stratifies people and impacts their socioeconomic position.[10]

Data from the 2015 U.S. Transgender Survey found that 10.7% of participants had both the correct name and gender marker listed on all of their IDs.[10,11] Trans and nonbinary people who were White, college educated, and/or had supportive families were more likely to possess gender-concordant IDs with their correct name and gender.[10] Having gender-concordant IDs was significantly associated with lower levels of depression, anxiety, and suicidal ideation among trans and nonbinary people in two U.S. studies (including the 2015 U.S. Transgender Survey and a 2019 community-based study in Massachusetts and Rhode Island),[10,12] and the 2009 Ontario Trans PULSE study.[7] Similar findings were reported in a Brazilian trans and nonbinary youth study conducted in 2018,[4] where those who legally changed their name had less depression and anxiety than those who had not or were in the process of doing so. Although these studies have provided crucial findings on the association between gender-concordant IDs and mental health, one limitation is that they did not specifically examine the mental health of trans and nonbinary people who face barriers to changing their IDs to match their correct name and genders.

The Aotearoa/New Zealand context

Throughout this article, we use the term ''Aotearoa'' (the indigenous Māori name for New Zealand) to indicate the country's name and the term ''New Zealand'' when referring to the official name of IDs. Access to gender-affirming health care is very limited in Aotearoa with no private health insurance coverage for such procedures and very limited access to gender-affirming surgeries through the public health care system.[13] This has resulted in high levels of unmet need for all forms of gender-affirming care and most transgender people (85.5%) having a birth certificate that does not match their gender.[14] The introduction of a simple administrative process for amending equivalent details on a passport in 2012 enabled legal gender recognition for citizens in Aotearoa. However, refugees, asylum seekers, and migrants who are not permanent residents cannot even amend their name in Aotearoa.

For permanent residents, there are administrative processes for amending one's name and gender marker details on a New Zealand driver's license record or passport,[15] or one's name on a New Zealand birth certificate (or a name change certificate for someone born overseas). These are based on self-declaration and can be done by completing a simple online application form. The gender options on passports and driver's licenses are M (male), F (female), or X (gender diverse/indeterminate).[16]

Amending gender marker details on a New Zealand birth certificate, or obtaining a Declaration as to Sex for those born overseas, is more difficult and expensive. It requires submitting medical evidence to the Family Court.[17] Judges have interpreted the law as requiring those 18 years of age or over to have had medical interventions that result in ''some degree of permanent change,'' namely a gender-affirming surgery or hormones. Legal guardians can apply for a child or young person, supplying evidence of past or intended medical interventions.[18] Judges have interpreted this to require a psychological assessment and either use of puberty blockers or gender-affirming hormones. There are costs associated with each of these medical steps. When trans and nonbinary people have taken fewer medical steps, legal representation may be necessary to demonstrate how the medical evidence required by law have been met. Therefore, nonbinary people and young people may be more likely to need to pay a lawyer to prepare their Family Court application.

In 2020, a Ministerial Working Group report detailed the extensive barriers faced by those wishing to amend their gender marker on a New Zealand birth certificate.[19] In December 2021, the Government amended the law replacing the Family Court process with an administrative one, based on self-declaration,[18] which will allow trans and nonbinary individuals to choose between male, female, and nonbinary gender marker options. That law, including associated regulations, will come into effect in June 2023 with options for people born overseas being explored within the same timeframe.[20]

Objectives of the Present Study

Current studies of gender-concordant IDs as a social determinant of health are limited to the North and South America regions. This study aims to build on previous studies,[4,7,10,12] in part by adjusting for a broad range of the sociodemographic differences (i.e., age, gender, ethnicity, birth country, disability, income, education, and gender-affirming medical steps) among trans and nonbinary people in Aotearoa. To the best of our knowledge, our study extends knowledge in this area by being the first to specifically explore the mental health of trans and nonbinary people who reported barriers in pursuing legal gender recognition. In line with previous studies that uncovered heightened rates of depression, anxiety, and suicidality among trans and nonbinary people with incorrect gender markers on their IDs,[4,7,10,12] we hypothesized that trans and nonbinary people who faced barriers to possessing gender-concordant IDs were more likely to experience mental health difficulties.

Method

Study design, participant recruitment, and data cleaning

We utilized data from the Counting Ourselves: Trans and Nonbinary Health Survey, a comprehensive survey that examined the health and wellbeing of trans and nonbinary people in Aotearoa between June and September 2018. Eligibility criteria included that participants: identified as transgender and/or nonbinary; were at least 14 years old; and resided in Aotearoa. The research team utilized various recruitment strategies to capture a wide representation of trans and nonbinary people; these included making connections with trans and nonbinary community groups and networks of health professionals and academic researchers working in trans health, as well as circulating social media posts that stated the importance of the survey from members of trans and nonbinary communities that were harder to reach (e.g., indigenous Māori, Pasifika/Pacific Island, Asian, disabled, and older people). Participants could either complete the survey online in Qualtrics or on a paper version although most (99%) opted to complete it online.[14] More information regarding the study design and recruitment strategies is in the community report.[14]

The survey began with an information sheet that stated it was important for participants to read so that they could decide whether they wanted to participate in the survey. The sheet outlined participants' rights, including how they could withdraw their responses, and online and phone support available if the survey topics raised questions or were stressful for participants. Participants provided their consent by completing the survey. A total of 1380 people commenced the survey. After removing those who did not meet the eligibility criteria or had not completed the initial demographic section,

the final sample comprised 1178 participants. Not all participants completed the entire survey, most likely because of the length of the survey; for instance, 818 participants completed the ID section, which was near the end of the survey, giving a completion rate of 69.4%. This study received ethics approval from the New Zealand Health and Disability Ethics Committee (18/NTB/66/AM01).

Measures

Prioritized ethnicity. Participants could select multiple options to the question, ''Which ethnic group or groups do you belong to?'' Response options were recoded based on the Ministry of Health's prioritized ethnicity protocol to create a nominal variable in the order of Māori, Pasifika, Asian, Pākehā/New Zealand European, and Other.[21]

Gender identity. Based on a two-step approach,[22] participants were categorized into four gender groups from their response options to two questions: self-defined gender, ''What gender or what genders do you currently identify with? Mark all that apply,'' and sex assigned at birth ''What sex were you assigned at birth, for example on your original birth certificate?'' Trans men included those who selected one of the current gender identities as man, trans man, tangata ira tāne, or transsexual, and were assigned female at birth (AFAB). Trans women were participants who selected woman, trans woman, transsexual, tangata ira wahine, whakawahine, or transsexual, and were assigned male at birth (AMAB). Participants who did not meet these criteria were either classified as nonbinary AFAB or nonbinary AMAB, and these groups included those who selected genderqueer, gender fluid, bigender, pangender, or nonbinary as their current gender.

Disability. Participants were asked six Washington Group Short Set questions that are used to collect New Zealand population data about disabled people.[23] ''The next questions ask about difficulties you may have doing certain activities because of a health problem. Do you have difficulty in walking or climbing stairs; hearing, even if using a hearing aid; seeing, even if wearing glasses; remembering or concentrating; communicating; and self-care such as washing all over or dressing?'' Response options included ''not at all,'' ''some difficulty,'' ''a lot of difficulty,'' and ''cannot do at all.'' In a binary variable of ''at least one form of disability'' or ''no disability,'' participants were classified as having a disability when they responded ''a lot of difficulty'' or ''cannot do at all'' to one or more of the mentioned aspects.

Age. We asked participants, ''What is your age in years?'' and collected this information as a continuous variable.

Educational qualification. We asked participants, ''What is your highest completed qualification?'' and collated the responses into four ordinal categories: None; Levels 1–5 Certificates that include basic and broad operational knowledge in a specific field; Levels 6–7 Diploma and Bachelor's Degree; Level 8 and above that include Master's and Doctoral Degrees.

Income. Participants were asked, ''What is the total income that you yourself got from all sources, before tax or anything was taken out of it, in the last 12 months?'' Responses were collated to create four ordinal categories: Loss (expense exceeds income) and zero, $1–15,000; $15,001–50,000; $50,001 and more New Zealand dollars.

Birth country. Participants were asked, ''Which country were you born in?'' and we created a nominal variable with binary responses: ''born in Aotearoa'' and ''born outside of Aotearoa.''

Gender-affirming medical steps. We asked participants eight questions: ''Have you had or do you want any of the health care listed below to affirm your gender? Mastectomy; Breast augmentation; Hysterectomy or Oophorectomy; Orchidectomy; Facial feminization surgeries; Voice surgery; Tracheal shave; and Genital reconstruction surgery, respectively. Response options were, ''Have had this and paid for it myself,'' ''Have had this and did not pay for it myself,'' ''Want this but have not had it,'' ''Not sure if I want this,'' and ''Do not want this.'' Participants' responses were coded into one of the four nominal categories of the medical gender-affirming status variable comprising ''not needed (never had or wanted any surgeries),'' ''not begun (wanted, but have not had any surgeries),'' ''had other medical steps but not genital surgery,'' and ''had genital surgery only.''

Gender-concordant IDs. The following questions on IDs were adapted from the U.S. Transgender Survey to the Aotearoa context.[11]

IDs with preferred name. We asked participants, ''Thinking about how your name is listed on all of your IDs and records that list your name, such as your birth certificate, driver's license, passport, 18+ card, etc. Which of the statements below is most true?'' This item used the same 5-point response scale as the U.S. Transgender Survey,11 and we replicated Scheim et al.'s study[10] to create a variable with three categories, namely whether participants indicated that all, some, or none ''of my IDs and records list the name I prefer.''

IDs with correct gender. Participants were asked, ''How is your gender listed on the following IDs and records?''. In this study, we assessed the following IDs: ''Birth certificate,'' ''New Zealand Passport,'' and ''Overseas Passport.'' Participants were categorized into three categories: ''none,'' ''some,'' or ''all'' of their IDs reflected the correct gender marker, and those who selected ''no gender listed,'' ''do not know,'' or ''do not have one of these,'' were excluded from analysis.

Barriers to changing gender markers. For participants who reported that the incorrect gender marker was listed on their documents, we asked, ''You said that the gender listed on

some of your documents is incorrect. What are the reasons for this? Mark all that apply.'' Table 1 presents the response options for those with the incorrect gender marker on their birth certificates and passports. Where possible, we recoded the qualitative responses under ''A reason not listed above (please specify)'' into existing or new categories. As Table 1 shows, not all participants desired to change their gender markers. Therefore, we carried out exploratory analyses on a single variable with three nominal categories: (1) participants with the correct gender markers, including those who had legally changed their gender marker (n = 97; 16.1%); (2) participants who reported barriers to changing their gender marker (n = 413; 68.7%); and (3) participants who had not tried to change their gender marker (n = 91; 15.1%). In instances where participants selected responses in the two latter categories, they were recoded as having experienced barriers to changing their gender marker.

Psychological distress. The Kessler Psychological Distress Scale (K10) contains 10 items (e.g., ''How often did you feel depressed?'') with a 5-point response scale from ''none of the time'' (0) to ''all of the time'' (4).[24] Total scores range from 0 to 40, with a score of 12 or more suggesting high levels of behavioral, emotional, cognitive, and/or psychophysiological symptoms of psychological distress in the last 4 weeks.[24] The internal reliability consistency of the K10 in this study was high (a = 0.94).

Table 1.
Reasons for having incorrect gender markers among Counting Ourselves participants who possessed birth certificates and passports (n = 510)

Reasons	n (%)
Barriers to change gender markers (n = 413)	
Gender options that are available do not fit gender	209 (41.0)
Cannot afford	161 (31.6)
Worried that changing gender would put at risk of harm or discrimination	139 (27.3)
Do not know how to do this	118 (23.1)
Not allowed to change gender marker because have not taken medical transition steps	92 (18.0)
Not possible to change gender on overseas identity documents	57 (11.2)
One or more requests to change gender details were denied	21 (4.1)
Not allowed to change gender marker because not a New Zealand resident	12 (2.4)
Process to change gender marker is too difficult[a]	18 (3.5)
Unconfident about being treated fairly during the process of changing gender marker[a]	5 (1.0)
Unsupportive family members[a]	4 (0.8)
Worry about consequences to healthcare access[a]	2 (0.4)
Too young[a]	1 (0.2)
Have not tried to change gender marker (n = 91)	
Plan to but have not tried to change	256 (50.2)
Not ready	117 (22.9)
I do not want to change my gender marker	40 (7.8)
Too long ago or not a concern[a]	5 (1.0)
Not out yet[a]	6 (1.2)
Unsure if want to change[a]	3 (0.6)

Note. The statistics presented in this table excluded participants without birth certificates and passports, or who had correct gender markers on these documents. There were 12 participants who provided a response that could not be recoded and 5 participants were undergoing process to change gender marker.
a = Responses from "A reason not listed above" that could not be up-coded into existing categories.

Nonsuicidal self-injury. We adopted a question from the Aotearoa Youth'12 study to assess nonsuicidal self-injury (NSSI),[25] ''During the last 12 months, have you deliberately hurt yourself or done anything you knew might have harmed you (but not kill you)?'' This item utilized a 5-point response scale from ''not at all,'' to ''more than 5 times.''

Suicidality. Taken from Youth'12,[25] we assessed suicidal ideation and suicide attempts by asking, ''In the last 12 months, have you. Seriously thought about killing yourself (attempting suicide)? Tried to kill yourself (attempted suicide)?,'' respectively. Response options were ''not at all,'' ''once or twice,'' and ''three times or more.''

Data analysis

Data analysis was conducted using IBM SPSS Statistics v26. We imputed missing values in education qualification (2.6%) and income (13.1%), including those who selected ''don't know,'' using the expectation maximization method[26] based on means and covariances of participants' reported education, income, employment status, and deprivation measures adopted from the New Zealand General Social Survey.[14] Missing values for K10 (ranged from 0.2% to 1.1%) were imputed based on covariances of existing items in the scale. High missing values for income were due to some participants responding ''don't know.''

Informed by Scheim et al. who identified correlates for possession of gender-concordant IDs in the U.S. Transgender Survey dataset,[10] we accounted for sociodemographic differences that are contextually relevant to Aotearoa. First, using Chi-square goodness-of-fit tests, we determined whether the observed proportions of participants having correct name and gender marker on IDs were significantly different from the expected distribution across sociodemographic groups (ethnicity, gender, birth country, disability, gender-affirming medical steps). Kendall's tau tests were used to assess effect sizes for ordinal variables (age, income, education). We also carried out Chi-square tests on participants who faced barriers in changing gender markers for all demographic group.

Sociodemographic variables that displayed statistically significant differences for respective ID variables reflecting correct name and gender marker were treated as covariates in regression models with mental health variables. Second, we employed generalized linear regression models to identify the association between IDs reflecting the correct name or gender marker, and mental health. We conducted separate models of linear regression for K10, and ordinal logistic regression for NSSI, suicidal ideation, and suicide attempts. To allow for an

easier interpretation of the regression coefficients, we entered ID variable with correct name/gender marker in regression models in three categories (all = 0, some = 0.5, none = 1). Finally, we used regression analyses to test the associations between barriers in changing gender marker on IDs and K10 (linear), NSSI and suicidality (ordinal logistic), setting the reference group as those who had the correct gender marker on all IDs. An alpha level of $p < 0.05$ was utilized to determine statistical significance for all analyses.

Results

Proportion of IDs with correct name and gender marker, and demographic distribution

The analytic sample included 818 participants (Mage = 30.28; standard deviation [SD] = 13.50). Among these, 285 (34.8%) had the correct name listed on all their IDs. As outlined in Supplementary Table S1, older participants, and those with higher education qualifications or income levels were more likely to have all their IDs listing their correct names. Participants who were Māori, Pasifika, nonbinary AMAB, or had gender-affirming genital surgeries were more likely to report having their correct name on all IDs.

Out of those who own the respective IDs, the proportion of correct gender markers are: New Zealand birth certificate (*n* = 88; 14.5%); overseas birth certificates (*n* = 32; 18.4%), New Zealand passport (*n* = 202; 37.9%); and overseas passports (*n* = 37; 20.3%). Among participants who possessed birth certificates and passports (n = 608; Mage = 30.69; SD = 13.60), 97 (16.0%) reported the correct gender marker listed on these IDs. In Supplementary Table S2, we present the sociodemographic differences for participants who had the correct gender marker on their IDs. We found participants who were older, and those with high levels of education or income had increased likelihoods of reporting all their IDs listed the correct gender marker. Nonbinary AMAB participants, trans women or those who had genital surgeries were more likely, and nonbinary AFAB participants were less likely, to report having all IDs listing the correct gender marker. There was no significant difference found for correct gender marker across ethnic groups.

Proportions of participants facing barriers in possessing IDs with correct gender markers, and demographic distribution

The reasons for participants not having the correct gender marker on their birth certificates and passports are summarized in Table 1. More than two-thirds (68.7%) of participants reported experiencing one or more barriers that hindered them from changing the gender marker on their IDs. Some of the common barriers included noninclusive gender options (41.0%), cost (31.6%), and worry about the risk of discrimination (27.3%). Half (50.2%) had plans to change their gender marker at a later stage and about one-fourth (22.9%) were not ready. About one-sixth (15.1%) did not experience any barriers because they had not tried to change their gender markers. In Table 2, we present the sociodemographic differences for participants with incorrect gender markers and reported barriers in changing these on birth certificates and passports. We found participants ages 14–18 and 19–24, nonbinary people AFAB, or with disability status were more likely to report a barrier. Barriers were less prevalent for participants with annual income of NZ $ 50,001 or more or who had genital surgery.

Associations between IDs with correct name and gender marker and mental health

In Table 3, we outline the findings of regression analyses, with unadjusted models that report bivariate relationships between the number of IDs with correct name and mental health, and adjusted models, which accounted for age, gender, ethnicity, education, income, and gender-affirming medical steps taken. In the unadjusted models, having IDs that reflected the incorrect name was significantly associated with higher levels of psychological distress (b = 4.65), NSSI (odds ratio [OR] = 2.63), suicidal ideation (OR= 1.73), and suicide attempt (OR= 2.12). Relative to participants with all IDs recording the correct name, adjusted multivariate models indicated that there were higher levels of mental health difficulties among participants with none of their IDs listing their correct name, although only NSSI (OR = 1.69; 95% CI = 1.17–2.45) was statistically significant.

Findings on the associations between having IDs with the correct gender marker and mental health are shown in Table 4. Compared with participants with all IDs listing their correct gender marker, those with incorrect gender markers reported significantly higher levels of psychological distress (b = 7.72), NSSI (OR= 2.80), suicidal ideation (OR= 1.54), and suicide attempt (OR= 1.10). In the adjusted multivariate models, higher levels of psychological distress, and increased odds of NSSI, suicidal ideation, and suicide attempts were found for participants possessing all IDs with the incorrect gender marker; however, these associations were not statistically significant.

Association between barriers in changing gender marker and mental health

In Table 5, we illustrate the results of regression models with reported barriers to possessing the correct gender marker on birth certificates and passports predicting mental health. Compared with participants with correct gender markers on all their IDs, bivariate models indicated elevated risks of mental health difficulties among participants who faced barriers in changing gender markers on their IDs. After controlling for age, gender, education, income, disability status, and gender-affirming medical steps taken, multivariate adjusted models showed higher average scores for K10 (b = 2.39, 95% CI = 0.48–4.30) and odds ratios for suicidal ideation (OR= 2.02, 95% CI = 1.21–3.37) among those who reported a barrier in changing their gender marker, compared with those

Table 2.
Percentage of Counting Ourselves participants who faced barriers in changing gender markers in demographic groups

	Total *n*	Incorrect gender markers due to barriers	Incorrect gender markers because have not tried to change	Statistical analyses
Age Groups				$\chi^2(6, n = 601) = 82.03, p < .001$
14-18	94	78.7 [69.1–86.5]	16.0 [9.2–25.0]	
19-24	157	81.5 [74.6–87.3]	12.1 [7.5–18.3]	
25-39	218	72.0 [65.6–77.9]	12.4 [8.3–17.5]	
40-54	84	47.6 [36.6–58.8]	20.2 [12.3–30.4]	
55+	48	29.2 [17.0–44.1]	27.1 [15.3–41.9]	
Prioritized ethnicity				$\chi^2(6, n = 601) = 11.78, p =.067$
New Zealand European/Pākeha and Others	501	68.5 [64.2–72.5]	15.2 [12.1–18.6]	
Māori	60	65.0 [35.8–82.7]	13.3 [5.9–24.6]	
Pasifika	18	61.1 [0–27.3]	33.3 [13.3–59.0]	
Asian	22	90.9 [70.8–98.9]	4.6 [0.1–22.8]	
Gender groups				$\chi^2(6, n = 601) = 52.06, p <.001$
Trans women	182	54.4 [46.9–61.8]	27.5 [21.1–34.6]	
Trans men	167	69.5 [61.9–76.3]	18.0 [12.5–24.6]	
Non-binary AFAB	196	81.1 [74.9–86.4]	3.1 [1.1–6.5]	
Non-binary AMAB	56	69.6 [55.9–81.2]	8.9 [3.0–19.6]	
Birth country				$\chi^2(2, n = 598) = 0.05$, p =.975
Aotearoa/New Zealand	429	69.0 [64.4-73.4]	14.7 [11.5-18.4]	
Overseas	169	68.6 [61.1-75.6]	15.4 [15.7-28.6]	
Disability				$\chi^2(2, n = 601) = 8.23$, p =.016
No disability	465	65.8 [61.3–70.1]	16.8 [13.5–20.5]	
At least one aspect	136	78.7 [70.8–85.2]	9.6 [5.2–15.8]	
Income in last 12 months				$\chi^2(6, n = 601) = 57.03, p <.001$
Loss and zero	49	79.6 [65.7–89.8]	16.3 [7.3–29.7]	
1-15,000	194	83.0 [77.0–88.0]	9.3 [5.6–14.3]	
15,001-50,000	215	67.9 [61.2–74.1]	13.5 [9.2–18.8]	
50,001 or more	143	46.9 [38.5–55.4]	25.2 [18.3–33.1]	
Education qualification				$\chi^2(6, n = 601) = 7.10, p = .312$
None	41	70.7 [54.5–83.9]	14.6 [5.6–29.2]	
Level 1-5 Certificate	274	70.1 [64.3–75.4]	15.7 [11.6–20.6]	
Level 6 Diploma and 7 Bachelor	148	72.3 [64.4–79.3]	14.2 [9.0–20.9]	
Level 8 and above Postgraduate	138	61.6 [52.9–69.7]	15.2 [9.7–22.3]	
Gender-affirming medical steps				$\chi^2(6, n = 599) = 75.91, p <.001$
Not needed	170	74.1 [66.9–80.5]	10.0 [5.9–15.5]	
Not begun	299	75.9 [70.7–80.7]	17.1 [13.0–21.8]	
Had other surgeries but not genital surgery	110	50.0 [40.3–59.7]	16.4 [10.0–24.6]	
Had genital surgery	20	20.0 [5.7–43.7]	25.0 [8.7–49.1]	

Note. Participants were excluded from analysis if they reported not having a passport or birth certificate, not knowing the gender listed, and that there was no gender listed. We also excluded five participants who reported currently undergoing processes to change gender markers. AFAB, assigned female at birth; AMAB, assigned male at birth

reporting the correct gender on both their birth certificates and passports. In the multivariate models, no significant differences in mental health difficulties were detected between participants who had not tried to change their gender markers and those with correct gender markers.

Discussion

Building on previous studies that have examined the health correlates of correct identification documents for trans and nonbinary individuals, we documented meaningful differences in mental health for trans and nonbinary individuals living in Aotearoa/New Zealand based on their reports of name and gender affirmation through identification documents. For instance, our multivariate models found participants with incorrect genders on their birth certificates and passports scored an average of 1.86 points higher on the 40-point K10 scale and had 56% higher odds of reporting suicidal ideation, than those with correct gender marker listed on both these IDs. Compromised mental health among trans and nonbinary people without gender-concordant IDs may be related to their negative experiences with IDs that did not match their gender,[1] as our preliminary analyses showed that approximately one-fifth had been denied services (18%) or verbally harassed (17%) when presenting ID that did not match their appearance.[14]

Table 3.
Associations between having identity documents with the correct name and mental health in the 2018 Aotearoa/New Zealand Counting Ourselves sample

	K10[a]		NSSI[b]		Suicidal ideation[b]		Suicide attempt[b]	
	Unadjusted *b*	Adjusted *b*	Unadjusted OR	Adjusted OR	Unadjusted OR	Adjusted OR	Unadjusted OR	Adjusted OR
Incorrect name on IDs	4.65 [3.08 to 6.22]**	1.31 [-0.1 to 2.79]	2.63 [1.88-3.67]**	1.69 [1.17-2.45]*	1.73 [1.27-2.37]**	1.29 [0.91-1.82]	2.12 [1.22-3.70]**	1.41 [0.77-2.61]

*<.05 **<.01
[a]Linear regression
[b]Ordinal logistic regression
Adjusted values controlled for participants' age, gender, race/ethnicity, education qualification, income level, and gender-affirming medical steps
K10, 10-item Kessler Psychological Distress Scale; NSSI, non-suicidal self-injury; IDs, identity documents

Table 4.
Associations between having birth certificate and passports with the correct gender and mental health in the 2018 Aotearoa/New Zealand Counting Ourselves sample

	K10[a]		NSSI[b]		Suicidal ideation[b]		Suicide attempt[b]	
	Unadjusted *b*	Adjusted *b*	Unadjusted OR	Adjusted OR	Unadjusted OR	Adjusted OR	Unadjusted OR	Adjusted OR
Incorrect name on IDs	7.72 [5.81 to 9.63]**	1.86 [-0.19 to 3.90]	2.80 [2.04-3.84]**	1.46 [0.83-2.57]	1.54 [1.29-1.84]**	1.56 [0.94-2.59]	1.10 [1.02-1.19]*	1.46 [0.50-4.23]

*<.05 **<.01
[a]Linear regression
[b]Ordinal logistic regression
Adjusted values controlled for participants' age, gender, education qualification, income level, and gender-affirming medical steps
K10, 10-item Kessler Psychological Distress Scale; NSSI, non-suicidal self-injury; IDs, identity documents

Table 5.
Mental health outcomes across status of changing gender markers on birth certificate and passports in the 2018 Aotearoa/New Zealand Counting Ourselves sample

	K10[a]		NSSI[b]		Suicidal ideation[b]		Suicide attempt[b]	
	Unadjusted *b*	Adjusted *b*	Unadjusted OR	Unadjusted OR	Unadjusted OR	Adjusted OR	Unadjusted OR	Adjusted OR
Incorrect gender and have not tried to change[c]	1.69 [-0.89-4.26]	-0.51 [-2.39-2.29]	1.47 [0.79-2.72]	0.72 [0.36-1.45]	1.87 [1.05-3.32]*	1.47 [0.78-2.74]	1.66 [0.27-10.21]	0.81 [0.12-5.43]
Incorrect gender due to barriers in changing[c]	7.09 [5.10-9.08]**	2.39 [0.48-4.30]*	2.76 [1.70-4.48]**	1.11 [0.64-1.94]	3.22 [2.04-5.08]**	2.02 [1.21-3.37]**	7.03 [1.68-29.38]**	3.05 [0.68-13.70]

*<.05 **<.01
[a]Linear regression
[b]Ordinal logistic regression
[c]Reference group = Correct gender on all birth certificate and passports
Adjusted values accounted for participants' age, gender, disability status, education qualification, income level, and gender-affirming medical steps
K10, 10-item Kessler Psychological Distress Scale; NSSI, non-suicidal self-injury

Documents that reflect both the correct name and gender have correlations with fewer mental health problems, yet documents with correct gender marker appear to be more strongly related to better mental health for participants in our study and the U.S. Transgender Survey.[10] Our findings are in concordance with previous studies.[10,12] Scheim et al., who utilized data from the 2015 U.S. Transgender Survey (N= 27,715), found that trans and nonbinary participants with all of their IDs reflecting their correct name and gender markers reported lower prevalence of suicidal ideation, serious mental distress, and planned suicidal behavior, as compared with their counterparts with no IDs reflecting their preferred name and gender marker.[10]

Our findings also corroborate patterns from another study that sampled trans and nonbinary residents of two U.S. states and found that residents with documents that reflected their changed name on both their passport and driver's license/ state ID reported lower levels of anxiety and depression compared with their counterparts who did not have their name changed on either document.[12] Nonbinary participants were less likely to report having some IDs listing their correct gender marker. In part, this is likely to reflect the absence of a nonbinary option on some ID documents, including a New Zealand birth certificate.

Of note, our study extended previous scholarships by specifically examining the association between barriers to legal gender recognition and mental health. We found participants who experienced barriers to changing their gender marker on IDs had higher average scores of psychological distress and greater odds of suicidality than those with gender-concordant

IDs, or those who had not tried to change these documents. We found larger effect size differences in mental health measures for participants facing barriers to change gender markers on birth certificates and passports than when we compared with the total group of those with incorrect gender markers on these IDs, although there was still overlap between the confidence intervals of these two estimates. Our findings suggest that future legal gender recognition research should distinguish between the experiences of those trans and nonbinary people who face barriers in possessing correct IDs, and those who do not wish to, or are not yet ready to, change their IDs.

Limitation

Counting Ourselves utilized nonprobability sampling, which may exclude trans and nonbinary people without reliable internet access or connections with trans and nonbinary communities, and those who were harder to reach (e.g., living in rural areas). Similar to other community-based trans and nonbinary studies,[11,27] our study includes disproportionately younger participants who lived in urban regions, and of Pākehā/New Zealand European descent. Participant dropout can be an issue with large surveys that primarily recruit participants through online platforms. In our study, we had an acceptable completion rate of the ID questions (69.4%) even though they were placed near the end of the survey.

The cross-sectional nature of our findings limits the interpretations of causality of gender-concordant IDs on mental health. Although we could not rule out the alternative explanation that trans and nonbinary people experiencing psychological distress have decreased motivation to enter the process of changing their name and/or gender marker on IDs, this factor is unlikely to have played a major role given 99% of participants with an incorrect gender marker listed specific barriers or concerns that were unrelated to experiences of psychological distress. Furthermore, many of our findings remained statistically significant after we controlled for a range of demographic variables, including age, gender, education, income, and gender-affirming medical steps; this is consistent with the hypothesis that having gender-discordant IDs leads to elevated levels of mental health problems. Future longitudinal research is needed to better understand this relationship over time. Another limitation of this study is that we did not collect data on whether participants who had changed their names and genders on their IDs overcame barriers in making these changes; future research could explore how they had overcome such hurdles

Conclusion

Previous research clearly reports the importance of acceptance from peers and family in improving the health and wellbeing of trans and nonbinary individuals.[2,28] We extended this work by documenting findings consistent with the protective nature of institutional acceptance. When institutional structures—such as enacted government policies that dictate how people are counted and legally recognized—allow for the accurate representation of a person's name and gender marker, these trans and nonbinary individuals are healthier.[3,4,7,10,12]

Our study has important implications for stakeholders at the institutional level. A low-cost, effective way to promote the mental health and wellbeing of trans and nonbinary individuals is to enable them to use a name and gender marker that reflects who they are, in all aspects of their daily life. Where such legal gender recognition processes are available, restrictive eligibility criteria, costs, and other barriers limit their effectiveness, and our research has provided evidence that this might be impinging on trans and nonbinary people's mental health. Therefore, simple administrative processes, based on self-determination, introduced recently in Aotearoa/New Zealand, are needed to enable trans and nonbinary people to update their name and gender marker on official documents. This could be one important step toward reducing the glaring mental health disparities present for trans and nonbinary populations in Aotearoa/New Zealand[25,29,30] and around the world.[11,27,31,32]

Our findings also have implications for how scholars continue to assess the mechanisms by which gender affirmation impacts mental health broadly. Although our study adds to past research that has explored gender-concordant IDs, future research can continue to disentangle whether there is a direct effect between the ability to change IDs and mental health, or whether the ability to change one's name and gender markers is a reflection and proxy of the larger social and political climate. In December 2021, Aotearoa passed a law introducing a self-determination model for amending gender markers on New Zealand birth certificates that commences in June 2023.[18] Regulations being developed will include identifying appropriate, culturally inclusive nonbinary gender marker options, including for Māori and Pasifika people. It would be timely for future research to explore whether a human rights-based approach to laws and policies, based on self-determination, improves health outcomes for trans and nonbinary people.

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Supplementary Table S1.
Percentage of Counting Ourselves participants with identity documents reflecting the correct name in demographic groups

	Total *n*	Number of IDs reflecting correct name		Statistical analyses
		All (%, 95% CI)	Some	
Age Groups				r_τ (n = 818) = -0.20, p <.001
14-18	122	18.0 [11.7–26.0]	27.0 [19.4–35.8]	
19-24	233	31.3 [25.4–37.7]	35.2 [29.1–41.7]	
25-39	288	37.2 [31.6–43.0]	34.0 [28.6–39.8]	
40-54	109	41.3 [31.9–51.1]	38.5 [29.4–48.4]	
55+	66	57.6 [44.8–69.7]	21.2 [12.1–33.0]	
Prioritized ethnicity				χ^2(6, n = 818) = 15.53, p = .016
New Zealand European/Pākeha and Others	665	32.9 [29.4–36.7]	33.4 [29.8–37.1]	
Māori	103	44.7 [34.9–54.8]	31.1 [22.3–40.9]	
Pasifika	23	52.2 [30.6–73.2]	8.7 [1.1–28.0]	
Asian	27	29.6 [13.8–50.2]	48.1 [28.7–68.1]	
Gender groups				χ^2(6, n = 817) = 23.72, p < .001
Trans women	248	32.3 [26.5–38.5]	39.9 [33.8–46.3]	
Trans men	235	32.8 [26.8–39.2]	37.9 [31.7–44.4]	
Non-binary AFAB	261	35.6 [29.8–41.8]	26.4 [21.2–32.2]	
Non-binary AMAB	73	46.6 [34.8–58.6]	16.4 [8.79–27.0]	
Birth country				χ^2(2, n = 814) = 2.49, p = .289
Aotearoa/New Zealand	626	36.1 [32.3-40.0]	31.8 [28.2-35.6]	
Overseas	188	30.3 [23.8-37.4]	36.7 [29.8-44.0]	
Disability				χ^2(2, n = 818) = 3.62, p = .164
No disability	620	36.6 [32.8–40.5]	31.8 [28.1–35.6]	
At least one aspect	198	29.3 [23.1–36.2]	36.4 [29.7–43.5]	
Income in last 12 months				r_τ (n = 818) = -0.15, p <.001
Loss and zero	68	26.5 [16.5–38.6]	26.5 [16.5–38.6]	
1-15,000	290	27.2 [22.2–32.8]	35.5 [30.0–41.3]	
15,001-50,000	296	37.8 [34.1–43.6]	34.1 [28.7–39.8]	
50,001 or more	164	46.3 [38.5–54.3]	28.7 [21.9–36.2]	
Education qualification				r_τ (n = 818) = -0.14, p <.001
None	59	23.7 [13.6–36.6]	28.8 [17.8–42.1]	
Level 1-5 Certificate	394	30.7 [26.2–35.5]	33.3 [28.6–38.1]	
Level 6 Diploma and 7 Bachelor	199	39.7 [32.9–46.7]	31.7 [25.3–38.6]	
Level 8 and above Postgraduate	166	42.8 [35.1–50.7]	34.9 [27.7–42.7]	
Gender-affirming medical steps				χ^2(6, n = 815) = 111.29, p <.001
Not needed	219	43.8 [37.2–50.7]	22.4 [17.0–28.5]	
Not begun	430	21.4 [17.6–25.6]	37.0 [32.4–41.7]	
Had other surgeries but not genital surgery	144	56.3 [47.8–64.5]	36.1 [28.3–44.5]	
Had genital surgery	22	72.7 [49.8–89.3]	27.3 [10.7–50.2]	

Note. AFAB, assigned female at birth; AMAB, assigned male at birth; IDs, identity documents

Supplementary Table S2.
Percentage of Counting Ourselves participants with birth certificate and passports reflecting the correct gender in demographic groups

	Total *n*	Number of IDs reflecting correct genders		Statistical analyses
		All[a]	Some[b]	
Age Groups				r_τ (n = 608) = 0.35, p <.001
14-18	94	5.3 [1.8–12.0]	3.2 [0.7–9.0]	
19-24	161	6.2 [3.0–11.1]	19.3 [13.5–26.2]	
25-39	218	15.6 [11.1–21.1]	26.2 [20.5–32.5]	
40-54	86	31.4 [21.8–42.3]	29.1 [19.8–39.9]	
55+	49	42.9 [28.8–57.8]	28.6 [16.6–43.3]	
Prioritized ethnicity				χ^2(6, n = 608) = 7.14, p =.308
New Zealand European/Pākeha and Others	507	16.2 [13.1–19.7]	20.3 [16.9–24.1]	
Māori	61	21.3 [11.9–33.7]	24.6 [14.5–37.3]	
Pasifika	18	5.6 [0–27.3]	33.3 [13.3–59.0]	
Asian	22	5.6 [0–27.3]	27.3 [10.7–50.2]	
Gender groups				χ^2(6, n = 608) = 66.09, p <.001
Trans women	183	18.0 [12.8–24.4]	33.3 [26.6–40.7]	
Trans men	170	12.4 [7.8–18.3]	31.2 [24.3–38.7]	
Non-binary AFAB	197	15.7 [11.0–21.6]	5.1 [2.5–9.1]	
Non-binary AMAB	58	20.7 [11.2–33.4]	10.3 [3.9–21.2]	
Birth country				χ^2(2, n = 605) = 0.04, p =.982
Aotearoa/New Zealand	434	16.1 [12.8-19.9]	21.0 [17.2-25.1]	
Overseas	171	15.8 [10.7-22.1]	21.6 [15.7-28.6]	
Disability				χ^2(2, n = 608) = 5.13, p =.077
No disability	471	17.2 [13.9–20.9]	22.5 [18.8–26.6]	
At least one aspect	137	11.7 [6.8–18.3]	17.5 [11.6–24.9]	
Income in last 12 months				r_τ (n = 608) = 0.30, p <.001
Loss and zero	49	4.1 [0.5–14.0]	8.2 [2.3–19.6]	
1-15,000	197	7.6 [4.3–12.3]	14.7 [10.1–20.5]	
15,001-50,000	218	18.4 [13.4–24.1]	21.6 [16.3–27.6]	
50,001 or more	144	27.8 [20.6–35.9]	34.7 [27.0–43.1]	
Education qualification				r_τ (n = 608) = 0.16, p <.001
None	41	14.6 [5.6–29.2]	12.2 [4.1–26.2]	
Level 1-5 Certificate	276	14.1 [10.2–18.8]	15.2 [11.2–20.0]	
Level 6 Diploma and 7 Bachelor	152	13.2 [8.2–19.6]	29.6 [22.5–37.5]	
Level 8 and above Postgraduate	139	23.0 [16.3–30.9]	27.3 [20.1–35.5]	
Gender-affirming medical steps				χ^2(6, n = 606) = 152.53, p <.001
Not needed	171	15.8 [10.7–22.1]	11.1 [6.8–16.8]	
Not begun	301	7.0 [4.4–10.5]	16.9 [12.9–21.7]	
Had other surgeries but not genital surgery	114	32.5 [24.0–41.9]	44.7 [35.4–54.3]	
Had genital surgery	20	55.0 [31.5–77.0]	45.0 [23.1–68.5]	

Note. Participants were excluded from analysis if they reported not having a passport or birth certificate, not knowing the gender listed, and that there was no gender listed.

[a]This includes participants with correct gender listed on all their passports and birth certificate (n = 97)

[b]This includes participants with correct gender listed on at least one of their passports and/or birth certificate but not all (n = 130)

AFAB, assigned female at birth; AMAB, assigned male at birth; IDs, identity documents