Psychology of Sexual Orientation and Gender Diversity
This is an Accepted Author version of an article published by American Psychological Association in Psychology of Sexual Orientation and Gender Diversity journal in 2021 https://doi.org/10.1037/sgd0000537

Gender Identity Change Efforts Faced by Trans and Non-binary People in New Zealand: Associations with Demographics, Family Rejection, Internalized Transphobia, and Mental Health

Jaimie F. Veale[a], Kyle K.H. Tan[a] & Jack Byrne[a]
[a]Transgender Health Research Lab, School of Psychology, University of Waikato, Hamilton, New Zealand

To cite this article: Jaimie Veale, Kyle Tan & Jack Byrne (2021) Gender identity change efforts faced by trans and non-binary people in New Zealand: Associations with demographics, family rejection, internalized transphobia, and mental health, *Psychology of Sexual Orientation and Gender Diversity*. Advanced online publication. DOI: 10.1037/sgd0000537

ABSTRACT:

Based on their transphobic assumption that being transgender or non-binary (TNB) is pathological or otherwise undesirable, gender identity change efforts (GICE) attempt to make a person's gender conform with their sex assigned at birth. While many professional bodies have noted that GICE practices are unethical, there has been little empirical research into the prevalence and correlates of GICE exposure. Counting Ourselves: the Aotearoa New Zealand Trans and Non-binary Health Survey is a community-based study, which participants completed mostly online. Out of 610 participants who had ever spoken to a health professional about their gender, 19.7% [16.6%, 23.1%] reported GICE exposure and a further 9.3% [7.2%, 11.9%] did not know. GICE exposure was higher among younger participants. Participants with GICE exposure were more likely than those without such exposure to report psychological distress, non-suicidal self-injury (NSSI), suicidal ideation, and suicide attempts (e.g., suicidal ideation OR = 2.39). GICE partially mediated the effect of family rejection on mental health and Internalized Transphobia partially mediated the effect of GICE on mental health. These correlates between GICE and mental health replicate recent findings from the US Trans Survey, and the mediation analyses help to understand potential causal mechanisms underlying these correlations. Although our findings are limited by being a convenience sample, they are consistent with the hypothesis that GICE exposure is harmful to TNB people's mental health. Moreover, these findings support moves by many professional bodies to emphasize that GICE is unethical and the legal steps taken by a growing number of jurisdictions to ban such practices.

KEYWORDS: gender identity change efforts; transgender; internalized transphobia; family rejection; mental health; suicidality

Public significance statement

This study found that almost one-in-five transgender and non-binary people in Aotearoa New Zealand who had spoken to a health professional about their gender had been exposed to gender identity change efforts (GICE; sometimes called "conversion therapy"). Those with GICE exposure were more likely to report internalized transphobia, psychological distress, self-injury, and suicide attempts. Our findings support professional bodies and jurisdictions banning GICE

Introduction

Recent estimates of the proportion of the population who are transgender and non-binary (TNB) in Global North countries are 1.0–1.2% of youth (e.g., Clark et al., 2014; Day et al., 2017) and 0.6% of adults (e.g., Flores et al., 2016). Serious health inequities exist between TNB and cisgender people, especially in the area of mental health and substance use (Brown & Jones, 2015; Clark et al., 2014; Reisner et al., 2015; Veale, Watson, et al., 2017), with transphobic stigma, rejection, and discrimination, associated with poorer mental health including suicidal ideation and attempts (Bockting et al., 2013; Klein & Golub, 2016; Scandurra et al., 2017; Tebbe & Moradi, 2016; Testa et al., 2017; Veale, Peter, et al., 2017).

Gender identity change efforts (GICE) are an example of this stigma, due to their transphobic assumption that being TNB is pathological and/or undesirable and gender identities and behaviors that are not presumed or expected based on a person's sex assigned at birth should be suppressed or changed through efforts labelled as "therapy" (Ehrensaft et al., 2018; Wright et al., 2018). Similar to GICE, sexual orientation change efforts are based on the homophobic assumptions that people should be heterosexual and that "therapy" efforts can change people's sexual orientation to make them heterosexual (Tozer & McClanahan, 1999). Change efforts included castration, hormone intake, electroshock and chemical aversion therapy, as well as psychotherapy, religious counselling, and behavioral change efforts. For TNB people these include preventing people from taking social or medical steps to affirm their gender (Ashley, 2021), often enforced through physical, psychological, or sexual violence (Mendos, 2020; Asia Pacific Transgender Network, 2021; United Nations Human Rights Council, 2020). While these change efforts are undertaken by a wide range of actors including health professionals, religious advisors, family and community members, state authorities including police and the military, employers and school authorities (Turban et al., 2020; United Nations Human Rights Council, 2020), the practice of GICE by health professionals has received more academic attention (Wright et al., 2018).

While people of all ages can be exposed to GICE, the effects of GICE exposure on TNB children and youth have been more commonly discussed in the academic literature. Recent

literature notes that GICE stands in contrast with the gender affirmative approach, where TNB children and youth take the lead in deciding the gender that they live in, with social and medical gender affirmation explored and supported if requested (Ehrensaft et al., 2018; Keo-Meier & Ehrensaft, 2018).

Similarly, the Aotearoa New Zealand Guidelines for Gender Affirming Healthcare are based on informed consent and incorporate access to puberty blockers and gender affirming care for trans young people (Oliphant et al, 2018). Public education from clinicians about this approach includes clarifying that withholding puberty blockers when they are needed is not a neutral act and can cause harm (Carrol, 2021). However, this approach is not followed consistently, with Counting Ourselves participants describing an inadequate focus on informed consent models of care. Youth (those aged 14-24) were more likely to report that a health provider had discouraged them from exploring their gender, refused to discuss gender-affirming healthcare with them, or told them that they were "not really trans or non-binary" (Veale et al., 2019).

Many public hospitals do not have a clearly identified pathway for transgender people of any ages who are seeking gender-affirming care. There is significant regional variation regarding both service availability and requirements for accessing services (Fraser et al., 2019; Professional Association for Transgender Health Aotearoa, 2019). Even when services are available, the number of people who can access them is insufficient because of rising demand, funding constraints and capacity limitations. Delays or denial of care are common and there is no coordinated plan to address significant unmet need for all forms of gender affirming healthcare, including services focused on TNB children and youth (Professional Association for Transgender Health Aotearoa, 2020; Veale et al., 2019).

The terms used to describe identity change efforts, the practices themselves and the responses to prohibit them have each evolved from an initial focus on enforced heterosexuality to also encompass actions that attempt to change TNB people's gender identity or expression. This evolution is seen in statements from national and international professionals bodies for mental health professionals that have spoken out against identity change efforts as unethical, harmful, or lacking scientific credibility (American Psychological Association, 2021; Bhugra et al., 2016; Canadian Psychological Association, 2015; New Zealand Association of Counsellors, 2020; New Zealand Psychologists Board, 2019; Rafferty et al., 2018). Professional bodies focused on the health needs of TNB people including the World Professional Association for Transgender Health (Coleman et al., 2012) and regional bodies in Canada (Nussbaum, 2015) and Australia (Telfer et al., 2020) have highlighted the specific harm of GICE. There is a growing momentum of countries (such as Malta, Germany, Brazil and Ecuador) and regional governments in parts of Canada, the United States, Spain, and Australia that have banned change efforts (Mendos, 2020; United Nations Human Rights Council, 2020), including the recent Sexuality and Gender Identity Conversion Act in the Australian Capital Territory. Further provisions have been proposed including an October 2020 commitment by the newly elected Government in Aotearoa New Zealand. In May 2020, a UN Independent Expert called for a global ban of conversion therapy practices (United Nations Human Rights Council, 2020).

A recent study by Turban and colleagues (2020) using 27,715 participants from the US Trans Survey found that 19.6% of participants who had spoken to a professional about their gender reported lifetime GICE. Just over a third of these participants reported that the GICE was from a religious advisor. Those who reported GICE were more likely to have severe psychological distress, lifetime suicide attempts, and an unsupportive family than those who had not received GICE. There were no significant differences between these groups for binge drinking, cigarette use, or illicit drug use.

Two other recent studies have included TNB people as a minority within studies of LGBTQ participants. One study found that TNB youth were more likely to report suicidality after being exposed to sexual orientation or gender identity change efforts (The Trevor Project, 2019). Another study found that gay and bisexual men in Canada who were exposed to sexual orientation change efforts were more likely to report loneliness and suicidality, and gay and bisexual trans men were more than three times more likely to report sexual orientation change efforts than gay and bisexual cisgender men (Salway et al., 2020).

Turban et al. (2020) concluded that GICEs are harmful for mental health, but conceded that due to the correlational nature of their research, there is a possible alternative explanation for their correlation that participants with higher levels of internalized transphobia may have been more likely to both 1) seek out a GICE and 2) have psychological distress and suicidality.

In (2013), Wallace and Russell predicted that attempts by mental health professionals to make people's gender more typical of their sex assigned at birth would "risk of fostering proneness to shame, a shame-based identity and vulnerability to depression" (p. 120). We are not aware of any research that has examined the relationship between GICEs and internalized transphobia, although there is research that has linked sexual orientation change efforts to internalized homophobia: Tozer and Hayes (2004) found that gay people with internalized homonegativity were more likely to seek sexual orientation change efforts. Recent attention has also been given to the link between sexual orientation change efforts and mental health and found that it is also associated with negative outcomes for sexual minority youth (Ryan et al., 2020).

Purpose of the Present Study

Few studies have looked at the prevalence of GICE outside of the United States, so this study examines the prevalence of GICE in Aotearoa New Zealand. We also aim to replicate the findings of Turban et al.'s (2020) research which found a link between GICEs, unsupportive families, and adverse mental health, and extend the analyses to further understand the underlying causation behind these correlations by examining 1) whether GICE mediates the relationship between family rejection and mental health and 2) whether internalized transphobia mediates the relationship between GICE and mental health.

Method

Participants

The Counting Ourselves: Aotearoa New Zealand Trans and Non-Binary Health Survey was an anonymous community-based survey for TNB people who were at least 14 years old and living in Aotearoa New Zealand. Participants were recruited through community groups (online and offline), social media posts as well as through our networks of health professionals and other researchers involved in TNB health. Our social media posts included drawings and quotes of local TNB community leaders and other community members stating the importance of the survey to them; we specifically included community members from groups that we knew would be harder to reach with this research, particularly including indigenous Māori and ethnic minority groups as well as older community members (see Veale et al., 2019 for more details).

The survey received 1,380 responses from participants; over 99% of these were responses to an online survey, but we also allowed anonymous postal paper survey responses. We removed 202 responses for not meeting inclusion criteria or not being legitimate responses (see Veale et al., 2019 for more details). A further 269 participants did not complete our survey question on GICE, mostly due to dropping out of the survey before completing that far, and we also removed 299 participants who had never spoken to a health professional about their gender. This left us with 610 participants.

The mean age of the sample was 32.1 years (range = 14–83; *SD* = 14.5). Genders of participants were 40.6% trans women, 37.0% trans men, and 22.4% non-binary. More non-binary participants were assigned female at birth (AFAB; 15.8%) than assigned male at birth (AMAB; 6.6%). For analysis, participants were categorized into one of four racial/ethnic groups using the New Zealand ethnicity prioritization method (Ministry of Health, 2017, p. 26) in this priority order of indigenous Māori (13.6%), Pacific Islander (3.1%), Asian (2.8%), then as New Zealand European/Pākeha (White; 76.6%).

Measures

Demographics. We categorized participants into gender groups based on a question about gender, where participants were asked to mark all genders they currently identify with from a list of many options, and question where participants were ask "what sex were you assigned at birth?" with male and female as response options. One participant did not give a gender, so could not be categorized and was removed from the analyses that included the gender variable. We determined regions that participants were living in by postcodes. We assessed religion using the New Zealand Census question, "What is your religion?" with response options *Christian*, *Buddhist*, *Hindu*, *Jewish*, *Muslim*, *no religion*, and *other (please specify)*. Due to low sample sizes in the non-Christian religious groups, we analyzed religion in three groups: Christian, other religion, and no religion.

Gender identity change efforts. A history of having been exposed to GICE was measured through a question asking, "Has any professional (such as psychiatrist, psychologist, or counselor) ever tried to make you identify only with your sex assigned at birth (in other words, tried to stop you being trans or non-binary)?" There were three response options given: *yes*, *no*, and *don't know*. We adapted this from the US Trans Survey (James et al., 2016), removing "religious advisor" from the examples given in the US Trans Survey and replacing it with "psychiatrist" to make the question specifically focused on mental health professionals.

Mental health. We used the Kessler Psychological Distress Scale (K10; Kessler et al., 2002) to measure psychological distress in the last 4 weeks. The K10 has 10 items asking about symptoms related to depression and anxiety (e.g., "How often did you feel so nervous that nothing could calm you down?"), using 5-point response scales from *none of the time* to *all of the time*. The K10 was effective in distinguishing cases of mood and anxiety disorders identified using structured interviews within the Aotearoa New Zealand general population (Oakley Browne et al., 2010). Cronbach's alpha in the present study was .94, indicating high internal reliability consistency. The K10 had a potential range of scores from 0–40 (M = 17.08, SD = 9.82).

We assessed non-suicidal self-injury (NSSI), suicidal ideation, and suicide attempts using questions from the New Zealand Youth 2000 series (Adolescent Health Research Group, 2008). For NSSI, this was "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 5 times* (4), sample M = 1.08, SD = 1.51. The suicidality questions we used were "In the last 12 months, have you seriously thought about killing yourself (attempting suicide)" and "In the last 12 months, have you tried to kill yourself (attempted suicide)?" with response options from *not at all* (0) to *three or more times* (2). Suicidal ideation sample M = 0.89, SD = 0.87 and suicide attempts sample M = 0.14, SD = 0.41.

Family rejection. Family rejection was assessed using an item from the Gender Minority Stress and Resilience Scale (Testa et al., 2015): "I have been rejected or distanced from my whānau/family because of my gender identity or expression." The item had a 5-point Likert response scale from *strongly disagree* (1) to *strongly agree* (5), sample $M = 2.85$, $SD = 1.49$.

Internalized transphobia. We measured internalized transphobia using three items from the Gender Identity Self-Stigma Scale (Timmins et al., 2017): *I wish I wasn't trans or non-binary*, *I feel that being trans or non-binary is a personal shortcoming for me*, and *I wish that I could identify more closely with the sex I was assigned at birth.* All items had a 5-point Likert response scale from *strongly disagree* to *strongly agree*. Cronbach's alpha in the present sample was .73.

Procedure

The study received ethical approval from the New Zealand Health and Disability Ethics Committee.

Data analysis

We used the expectation maximization function in IBM SPSS version 25 to impute missing values for K10 (0.2% to 1.1% of data) and Internalized Transphobia (0.2% to 1.2% of data) items using other scale items. Chi-square and Kendall's tau tests of demographic group differences were also conducted using SPSS. We used jamovi (version 1.1.9; The jamovi Project, 2019) to conduct ordinal logistic regressions and mediation analyses. Ordinal regression analyses included GICE (three categories: yes = 1, don't know = 0.5, no = 0; this response scale coding was to allow for easiest interpretation of the regression coefficients), age, and gender (three categories) predicting mental health outcomes (ordinal variables). We used the jAMM jamovi module for these mediation analyses and we present these results with bootstrap estimation method of 1000 samples.

Results

Prevalence of GICE and Demographic Distribution

Out of the 610 participants in our sample who had spoken to a health professional to access gender affirming care, 120 reported lifetime GICE exposure (19.7%, 95% CI [16.6%, 23.1%]) and a further 57 reported that they did not know (9.3%, 95% CI [7.2%, 11.9%]). Table 1 shows how these percentages differed across demographic groups. Younger participants and those with non-Christian religions were more likely to report either GICE exposure or that they did not know if they were exposed to this compared with older, Christian, and participants reporting no religion. Trans women tended to be less likely and non-binary AMAB participants more likely to report GICE exposure than trans men and non-binary AFAB participants.

Table 1

Percentage of Participants who Reported GICE in Demographic Groups

Demographic	*n* total	GICE exposure % [95% CI]		Statistical test
		Yes	Don't know	
Age				r_τ (n = 610) = -0.10**
14-18	69	24.6% [15.1–36.5]	18.8% [10.4–30.1]	
19-24	172	20.9% [15.1–27.8]	1.0% [6.8–16.7]	
25-40	218	19.7% [14.7–25.6]	6.9% [3.9–11.1]	
41-54	85	16.5% [9.3–26.1]	5.9% [1.9–13.2]	
55 and older	66	15.2% [7.5–26.1]	7.6% [2.5–16.8]	
Gender				χ^2(6, n = 608) = 16.44*
Trans men	225	23.1% [17.8–29.2]	10.2% [6.6–14.9]	
Trans women	247	14.2% [10.1–19.2]	6.5% [3.7–10.3]	
Non-binary AFAB	96	20.8% [13.2–30.3]	13.5% [7.4–22.0]	
Non-binary AMAB	40	30.0% [16.6–46.5]	12.5% [4.2–26.8]	
Race/ethnicity				χ^2(8, n = 610) = 13.29
NZ European/Pākehā (White)	467	18.0% [14.6–21.8]	9.9% [7.3–12.9]	
Māori (indigenous)	83	28.9% [19.5–39.9]	4.8% [1.3–11.9]	
Pacific Islander	24	16.7% [4.7–37.4]	12.5% [2.7–32.4]	
Asian	19	10.5% [1.3–33.1]	5.3% [0.1–26.0]	
Other	17	35.3% [14.2–61.7]	17.6% [3.8–43.4]	
Region				χ^2(6, n = 597) = 10.14
Auckland	195	15.9% [11.1–21.8]	6.7% [3.6–11.1]	
Wellington	164	20.7% [14.8–27.7]	7.9% [4.3–13.2]	
Other North Island	104	25.0% [13.2–30.3]	11.5% [6.1–19.3]	
South Island	134	20.1% [13.7–27.9]	13.4% [8.2–20.4]	
Religion				χ^2(4, n = 542) = 14.56**
Christian	64	14.1% [6.6–25.0]	9.4% [3.5–19.3]	
Other religion	115	25.2% [17.6–34.2]	16.5% [10.3–24.6]	
No religion	363	17.1% [13.4–21.4]	7.7% [5.2–11.0]	

Note. CI = confidence interval; AFAB = assigned female at birth; AMAB = assigned male at birth.
* $p < .05$, ** $p < .01$, *** $p < .001$

Association Between GICE and Mental Health Outcomes

Table 2 outlines regression model results of GICE predicting a range of mental health outcomes, with age and gender included as covariates. These results show that after accounting for age and gender, GICE was significantly associated with worse outcomes on all of the mental health variables. These models predicted that compared with those without GICE exposure, those with GICE exposure had a 4.65 point higher average score on the K10 Psychological Distress scale, more than two times the odds of increased NSSI and suicidal ideation, and almost four times the odds of increased suicide attempts.

GICE Mediating the Relationship Between Family Rejection and Mental Health

We conducted mediation analyses to examine hypothesized causal pathways with an intermediary variable. We tested two main hypotheses, 1) family rejection causing GICE, which then causes mental health problems and 2) GICE causing internalized transphobia, which then causes mental health problems. These results allow us to test whether our data are consistent with these causal hypotheses, but they do not necessarily allow us to rule out alternative causal hypotheses of causation in different directions or causation by other unmodelled variables.

Our mediation analyses showed a statistically significant total effect for the relationship between family rejection and all of the mental health variables except NSSI. Figure 1 shows the

regression paths for these mediation analyses; these analyses showed that 1) those who had experienced family rejection were more likely to report GICE exposure than those who had not, 2) GICE remained statistically significantly associated with mental health outcomes after controlling for family rejection, and 3) GICE partially mediated the relationships between family rejection and all of the mental health variables, although the full mediation hypothesis for NSSI and suicide attempts was still plausible, given our data.

Internalized Transphobia Mediating the Relationship Between GICE and Mental Health

Figure 2 illustrates the regression paths from four further mediation analyses. These analyses show GICE exposure predicted higher Internalized Transphobia, which in turn predicted worse mental health outcomes. In accordance with the regression results in Table 2, we found a statistically significant total effect from GICE to all of the mental health variables we looked at; internalized transphobia partially mediated the relationship between GICE and mental health for all of these mediation analyses.

Discussion

Prevalence of GICE Exposure

We found that nearly one-in-five (19.7% [16.6%, 23.1%]) TNB people in Aotearoa New Zealand who had spoken to a health professional to access gender affirming care reported lifetime GICE exposure, and a further 9.3% [7.2%, 11.9%] did not know if they had received this. This lifetime GICE exposure is almost equivalent to the 19.6% of US Trans Survey participants reported by Turban et al. (2020). It is likely the level of GICE is higher in Aotearoa New Zealand given the difference in the question wording between our study and Turban et al.'s, because the latter had a broader scope including GICE from religious advisors as well as mental health professionals. Our question about GICE exposure appeared in a section of the survey which focused on experiences accessing care from health professionals and all listed examples were mental health professionals. Therefore, although our question used the broader term 'professionals' we expect our results to relate almost entirely to GICE from mental health professionals. Our sample also differed from Turban et al.'s by including adolescent participants (14-18 year olds) in our sample. These prevalence results should be interpreted with caution because this study utilized a nonprobability community sample. In the absence of representative data, however, results from this study and Turban et al.'s (2020) are useful to gather initial estimates of the prevalence of GICE exposure.

Correlates of GICE Exposure

Demographic correlates. We assessed demographic correlates of GICE exposure. We found that our adolescent participants (aged 14-18) had the highest GICE exposure (24.6% [15.1–36.5]) and there was a trend of lower rates of GICE for each older age group. This differs from Turban and colleagues (2020), who found that their 25-44 age group had the highest rate of GICE exposure (21.2%) and age groups that were younger and older than this all had 18%-19% GICE exposure. This is in line with our findings that this age group were also more likely to report that a health provider had discouraged them from exploring their gender, refused to discuss gender-affirming healthcare with them, or told them that they were "not really trans or non-binary" (Veale et al., 2019).

Ehrensaft and colleagues (2018) described health professionals' use of GICE for children and adolescents. Our younger participants are the age group most likely to have talked to health professionals about being TNB when they were a child or adolescent, and therefore face the highest potential exposure to such practices. Younger participants

Table 2

Regression Models With GICE and Demographic Covariates Predicting Mental Health Outcomes

	K10 Psychological Distress[1]			NSSI (past year)[2]			Suicidal ideation (past year)[2]			Suicide attempt (past year)[2]		
	b	95% CI	β	*b*	*OR*	95% CI	*b*	*OR*	95% CI	*b*	*OR*	95% CI
GICE	4.65***	[2.85, 6.45]	0.19	0.93***	2.54	[1.69, 3.82]	0.87***	2.39	[1.61, 3.56]	1.32***	3.76	[2.09, 6.74]
Age	-0.26***	[-0.32, -0.21]	-0.40	-0.07***	0.94	[0.92, 0.95]	-0.03***	0.97	[0.95, 0.98]	-0.04**	0.96	[0.93, 0.98]
Gender[3]												
Trans men	-0.81	[-2.56, 0.94]	-0.08	0.08	1.09	[0.72, 1.63]	-0.01	0.99	[0.67, 1.44]	0.17	1.19	[0.63, 2.28]
Non-binary AFAB	1.53	[-0.68, 3.73]	0.16	0.29	1.34	[0.82, 2.17]	-0.05	0.95	[0.59, 1.53]	-0.12	0.89	[0.39, 1.96]
Non-binary AMAB	-2.64	[-5.72, 0.45]	-0.27	-0.57	0.57	[0.23, 1.29]	-0.74*	0.47	[0.23, 0.95]	-0.88	0.42	[0.06, 1.61]
n	585	585	579	562								
GICE	4.65***	[2.85, 6.45]	0.19	0.93***	2.54	[1.69, 3.82]	0.87***	2.39	[1.61, 3.56]	1.32***	3.76	[2.09, 6.74]

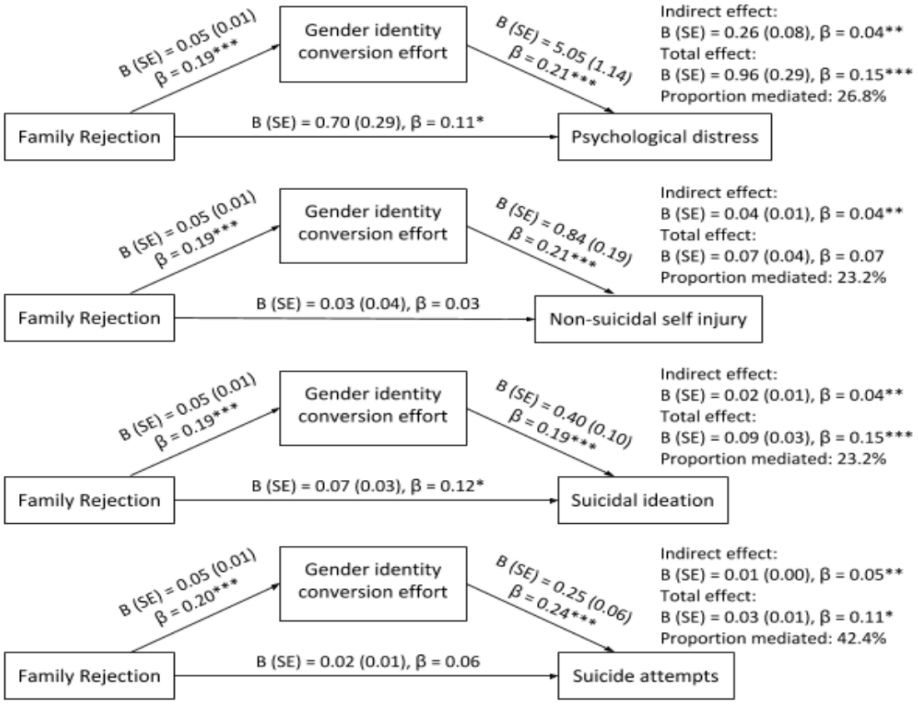
Note. OR = odds ratio; CI = confidence interval; AFAB = assigned female at birth; AMAB = assigned male at birth.

[1]linear regression model; [2]ordinal logistic regression model; [3]trans women used as the reference group

* p < .05, ** p < .01, *** p < .001

Figure 1

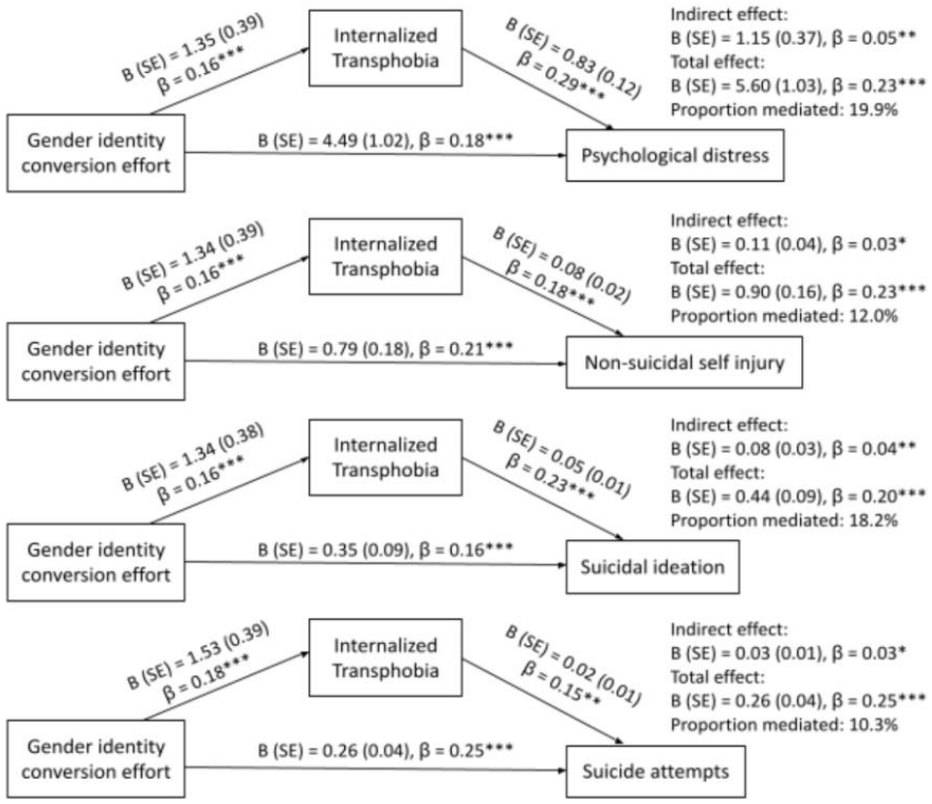
Mediation analyses of GICE on the relationship between family rejection and mental health.



Note. * $p < .05$, ** $p < .01$, *** $p < .001$

Figure 2

Mediation analyses of Internalized Transphobia on the relationship between GICE and mental health.



Note. * $p < .05$, ** $p < .01$, *** $p < .001$

may also have more awareness about what constitutes GICE, especially if they are linked to youth-led social media campaigns advocating for such practices to be banned. We found that GICE exposure was lowest among trans women, which also differs from Turban et al. who found that trans women reported the highest rate of GICE exposure. This may be explained partially by age differences, as trans women in our study were, on average, older.

We did not find any statistically significant differences for racial/ethnic groups, although our very high rates of 28.9% [19.5–39.9] GICE exposure among our indigenous Māori participants warrants future investigation. We also did not find any significant differences between participants who were Christian or who reported no religion; however, those who reported another religion were more likely than these other groups to report that they did not know if they have GICE exposure.

Internalized transphobia. This is the first research that we are aware of that has assessed and found a correlation between GICE exposure and internalized transphobia. Our findings support Wallace and Russell's (2013) prediction that GICE exposure would cause internalized transphobia, and it makes sense from a theoretical perspective that GICE from professionals in trusted positions of power are likely to powerfully reinforce the stigma and prejudice that TNB people face. It is also plausible, however, that those with greater internalized transphobia were more likely to seek out GICE, and both of these explanations could be occurring.

Mental health correlates. Our study found that even after controlling for age, gender, and family rejection (in the mediation analyses), GICE exposure was associated with adverse mental health outcomes on all of the mental health variables that we examined. This replicates the findings of Turban et al. (2020) with US Trans Survey data and other research that has included TNB people within LGBTQ samples (Salway et al., 2020; The Trevor Project, 2019). Our regression model predicted that compared to those who had no GICE exposure, those who reported GICE exposure scored, on average, almost 5 points [2.85, 6.45] higher on the K10 Psychological Distress scale[1]; this equates to an average increase into one higher of the four categories provided by the New Zealand Ministry of Health (2017) of none/low, moderate, high, or very high psychological distress. Similarly, participants with GICE exposure had a predicted 2–4 times greater odds (95% confidence intervals from 1.61-6.74) of reporting NSSI, suicidal ideation, and suicide attempts. As well as being statistically significant, these are clinically significant effect sizes.

Mediation Analyses

Our study extended the work of Turban et al. (2020) by conducting two sets of mediation analyses to explore possible underlying causal hypotheses. We found that participants who reported family rejection were more likely to have GICE exposure, consistent with Turban and colleagues' finding that family support was negatively associated with GICE. The first set of mediation analyses we conducted showed that GICE partially mediated the effect of family rejection on mental health outcomes. Our finding of an indirect effect from family rejection to mental health variables via GICE suggests that GICE is one of the ways that family rejection can cause psychological harm for TNB people.

We conducted a second set of mediation analyses to examine the possible underlying causal hypotheses that might explain the correlation between GICE and mental health problems. These analyses showed that internalized transphobia partially mediated the effect of GICE on mental health variables. While there is some evidence of a pathway from GICE to mental health problems via internalized transphobia, most of the effect (80%–90%) was direct. The finding that most of this effect was direct is contrary to the third-variable hypothesis that individuals with higher internalized transphobia are more likely to both seek GICE and have mental health problems (Turban et al., 2020); this hypothesis would require a full mediation effect. While an alternative causal hypothesis that participants with mental health problems are more likely to seek out GICE is possible, this is a less plausible explanation because the GICE would likely have had temporal precedence (occurred before) the mental health variables that we looked at (psychological distress within the past 4 weeks and NSSI, suicidal ideation, and suicide attempts in the past 12 months). Another possible explanation is that people with mental health problems are more likely to interpret their interaction with a professional as the professional trying to make them identify only with their sex assigned at birth. Future research could reduce the possibility of these alternative hypotheses by controlling for previous mental health and including assessment of more detailed and specific aspects of GICE (e.g., specific psychotherapy and behavior change attempts) that are less open to interpretation. Considering also the corroborating evidence of accounts of people reporting that experiencing GICE was harmful to them (Mendos, 2020; see Ashley, 2020, pp. 13-15, for a review), we suggest this leaves GICE exposure causing adverse mental health outcomes as the most likely causal explanation.

Strengths and limitations

The main strength of this research is its large sample. Our sample size as a proportion of the general population was larger than any other national transgender health survey we are aware of, including the US Trans Survey which Turban and colleagues' (2020) findings were from.

On the other hand, limitations of this research include that this study was based on a non-probability sample using methods that tend to over-represent White, younger, more well-

[1] The K10 has a potential range of 0 – 40.

educated TNB people (Devor & Dominic, 2015). This study also used a correlational design, meaning we cannot rule out alternative causal hypotheses such as those suggested above. A longitudinal study examining change over time would provide a stronger test of this causation. Finally, our GICE survey question was limited in that it did not specify which type of professional they were exposed to the GICE from; although, as we noted above, we expect that this was interpreted by participants as being from health professionals rather than religious professionals. Turban and colleagues (2020) did not find any differences in their correlations between GICE and mental health for those who reported GICE from religious verses from health professionals. Our GICE question was also limited by not asking when participants were exposed to GICE. Turban and colleagues found a nonsignificant trend for those who reported GICE before the age of 10 tending to be even more likely to report adverse mental health outcomes.

Implications

This study's finding that GICE exposure is related to internalized transphobia and adverse mental health support the work by multiple professional bodies and jurisdictions to prohibit GICE. While our data was focused more narrowly on GICE by mental health professionals, it is likely that GICE by others in positions of power, including religious advisors, occurs in New Zealand. There is no evidence that GICE from these perpetrators would be any less harmful (Turban et al., 2020). This suggests that any measures to reduce the harm caused by GICE should not be restricted to regulating the actions of health professional bodies (including through their professional bodies) but also encompass addressing the actions of other perpetrators of GICE and the wider stigma and prejudice TNB people face, including that experienced as internalized transphobia.

Conclusion

This research found that GICE exposure was reported by almost one-in-five TNB people in Aotearoa New Zealand who had spoken to a mental health professional about their gender. We found meaningful associations between GICE exposure and internalized transphobia, family rejection, psychological distress, NSSI, and suicide. GICE practice has been noted as unethical from a range of professional bodies due to it being harmful for TNB people to experience; our findings are in accordance with this professional consensus.

Funding

This research was funded by the Health Research Council of New Zealand (17/587), the Rule Foundation, and the University of Waikato.

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