

<https://researchcommons.waikato.ac.nz/>

Research Commons at the University of Waikato

Copyright Statement:

The digital copy of this thesis is protected by the Copyright Act 1994 (New Zealand).

The thesis may be consulted by you, provided you comply with the provisions of the Act and the following conditions of use:

- Any use you make of these documents or images must be for research or private study purposes only, and you may not make them available to any other person.
- Authors control the copyright of their thesis. You will recognise the author's right to be identified as the author of the thesis, and due acknowledgement will be made to the author where appropriate.
- You will obtain the author's permission before publishing any material from the thesis.

**Supportive School Environments as Protective Factors for Psychological Wellbeing in
Transgender Secondary School Students in Aotearoa New Zealand**

A thesis submitted in fulfilment of the requirements for the degree of Master of Science
(Research) in Psychology at The University of Waikato

By James Hounsell

2026

Abstract

Young people in Aotearoa New Zealand face a mental health crisis, and this is especially dire for transgender and gender diverse youth, who are at significant risk of suicide. It is well established that trans youth experience high levels of bullying and discrimination, especially in schools, however comprehensive understandings of how social supports within school environments can buffer the effects of victimisation are less understood. This study aimed to investigate how social elements within secondary schools, such as safety, belonging, and teacher and classmate support, predict mental health difficulties in transgender students. Quantitative data drawn from 294 secondary school student participants from the 2022 wave of the Counting Ourselves survey was analysed using univariate analysis and logistic regressions. This study found that 90.1% of participants reported high or very high levels of psychological distress, 72.4% had engaged in NSSI, and 61.6% seriously considered committing suicide in the last 12 months. However, social supports within schools appeared to have a protective effect on student's mental wellbeing. School safety was a significant protective factor all three mental health outcomes, and belonging and supportive classmates and adults were protective across analyses. These findings align with previous research that recommends that trans-inclusive policies in schools help trans students feel safe and accepted by their peers, which in turn can foster wellbeing. This study goes further by finding significant associations between school support and psychological outcomes. Overall, this emphasises the demand for inclusive school environments for transgender students and highlights the importance of social safety for marginalised groups.

Acknowledgements

I first wish to extend my deepest appreciation and gratitude to my primary supervisor, Dr Jaimie Veale. Her guidance and support through this entire academic journey have been invaluable and I am grateful for her patience. I also thank my secondary supervisor Dr John Fenaughty, who offered much needed reassurance and direction. I am so grateful for both of their expertise and leadership, and for their encouragement to keep pushing.

Throughout this research I have been so lucky to be a part of the Transgender Health Research Team; our weekly zoom meetings offered kind support, connection, and collaboration. I admire the mahi you are all working towards, and am so proud of every one of you. I'd especially like to thank my fellow Master's student Georgia- you made this whole process feel less isolating, and I'm grateful for our panicked check in emails! To the Counting Ourselves team, thank you so much for your hard work and dedication. The scale of this survey requires an incredible amount of time and effort, and this is not taken for granted. For everyone who completed the survey, words cannot express the gratitude I have for sharing your experiences. Your voices matter.

For my beautiful family and friends, thank you for your never-ending support and encouragement. I wouldn't have been able to do this without you, I hope I make you proud. Theo, thank you for believing in me. This year has been full of ups and downs, and I'm so grateful for your patience, comfort, and support.

Finally, I wish to acknowledge every trans kid struggling to find their place. It gets better, and your life is precious. There is still time.

Table of Contents

<i>Abstract</i>	<i>ii</i>
<i>Acknowledgements</i>	<i>iii</i>
CHAPTER ONE: INTRODUCTION	1
LITERATURE REVIEW	2
<i>Theories of Stress and Minority Status</i>	2
<i>Issues in Transgender Health Research</i>	5
<i>Transgender Youth</i>	6
<i>Educational Environments</i>	7
<i>Rationale</i>	11
CHAPTER TWO: METHODS	13
1. Study design	13
1.1 <i>Ethics approval and ethical considerations</i>	14
1.2 <i>Recruitment</i>	14
1.3 <i>Data Collection/ Procedure</i>	15
1.4 <i>Participants</i>	15
2. Dependent variables	16
2.1 <i>K10 Psychological Distress Scores</i>	16
2.2 <i>Non-Suicidal Self-Injury</i>	17
2.3 <i>Suicidal Thoughts</i>	17
3. Independent variables	17
3.1 <i>Adult Support</i>	17
3.2 <i>Classmate support</i>	18
3.3 <i>Belonging</i>	19
3.4 <i>Safety</i>	19
4. Data Analysis Approach	19
4.1 <i>Univariate Analyses</i>	19
4.2 <i>Binary Logistic Regression Analyses</i>	19
CHAPTER THREE: RESULTS	21
K10 Scores	22
NSSI	24
Suicidal Thoughts	25
CHAPTER FOUR: DISCUSSION	27
Univariate vs Multivariate Analysis Results	27
MH Outcomes:	28
Safety	29
Peer support	29
Adult Support	30
Belonging	31

Implications	33
Limitations.....	34
Conclusion	35
<i>References</i>	37

CHAPTER ONE: INTRODUCTION

This thesis aims to explore the role of safe educational environments in protecting psychological wellbeing in transgender and non-binary secondary school students in Aotearoa New Zealand. It is well established that transgender youth face significant threats of discrimination of violence, especially at school (Mackie et al., 2021), and this has been linked to staggering rates of suicide and mental distress in this population (Hatchel et al., 2019). A New Zealand school based study by Clark et al. (2014) found that compared to their cisgender peers, transgender students had higher rates of depressive symptoms (41.3% vs 11.8%), self-harm (45.5% vs 23.4%), and suicide attempts in the last 12 months (19.8% vs 4.1%). Schools are a major social sphere for young people, so I draw on the perspectives of transgender secondary school students to investigate how school climates relate to their mental health from a social safety understanding.

This chapter will introduce the social context of the prejudice trans people face, and the mental health disparities they experience. This will be followed by a literature review, which will evaluate theories of minority stress and social safety, and what research tells us about the experiences of transgender youth, as well as what is missing from collective understanding. Finally, the rationale for this research will be introduced, which will be further extended upon in the second Methodology chapter.

Aotearoa New Zealand has reported notably high rates of suicide and mental health issues in young people, and as of 2025, UNICEF established New Zealand as having the highest suicide mortality rate out of all OECD countries (Unicef, 2025). One of the most vulnerable groups of youth for suicide and mental health issues are those who are transgender (Mackie et al., 2021). Theories for why this is largely come down to the fact that trans people

experience high levels of violence and discrimination, and these threats are most commonly experienced by youth (Tan et al., 2020).

LITERATURE REVIEW

This literature review intends to explore mental health outcomes in transgender youth, and why rates of suffering are so high by tying in theories of minority stress and social safety. Then, I will examine schools as a site of social development, and how factors that make up a positive school climate for trans youth can be protective for their wellbeing.

Theories of Stress and Minority Status

When considering internal and external factors that make youth more vulnerable to psychological distress, it is important to recognise that trans people experience specific stressors as a minority group that amplify their risk (Testa et al., 2015). The Gender Minority Stress Theory (GMS) is a tool used to conceptualise how the social minority position of trans people translates to observed physical and mental health disparities (Testa et al., 2015). The GMS theory draws on Meyer's Minority Stress Theory (2003), which aims to explain why LGB people experience higher rates of mental health disorders than heterosexual people. Meyer offers a framework for understanding this health disparity, suggesting that hostile social environments in which discrimination, prejudice, and stigma occur, create a unique stress that leads to these mental health problems (Meyer, 2003). Instead of mental health disorders being an inherent part of queerness, it is the social prejudices and the violences that LGBTQ+ people face that increase psychological distress.

Meyer provides two pathways in which this stress manifests, where stressors are categorized either as distal or proximal. Distal stressors refer to direct events of discrimination and victimization related to one's minority identity. Proximal stressors are more anticipatory of these events, and include fear of further victimization, internalized

homophobia, and the stress of nondisclosure of one's identity (Meyer, 2003). While originally intended for understanding stressors of LGB individuals, some of these experiences are shared by transgender individuals, such as being 'closeted' (non-disclosure). However, past research has tended to tokenistically include transgender people in LGB studies, which ignores the unique and specific social pressures faced by trans people and assumes that their experiences are synonymous with people who are LGB (Testa et al., 2015). Therefore, a specific model for understanding how discrimination affects gender diverse people is required.

Adapted from Meyer's framework, the Gender Minority Stress Theory applies proximal and distal stressors to the experience of transgender individuals, and the high prevalence of mental health issues in transgender people correlates with this theory (Testa et al., 2015). This theory posits that cisgenderism (the prejudicial ideology that there are only two genders, and self-determination of gender is illegitimate (Riggs et al., 2015)) leads to a stress that is specific to transgender people, and that distal and proximal stressors contribute to the high rates of mental health problems in this population (Testa et al., 2015). The Gender Minority Stress and Resilience Measure was developed to reliably assess minority stress in transgender people. This measure has nine constructs: gender related discrimination, gender related rejection, gender related victimization, nonaffirmation of gender identity, internalized transphobia, negative expectations for future events, nondisclosure, community connectedness, and pride (Testa et al., 2015). The latter two concepts are considered buffers against minority stress and stand as indicators of resilience. These constructs can be used as points of intervention when considering improving the wellbeing of transgender people.

The Generalised Unsafety Theory of Stress (GUTS) suggests a method of how stressors contribute to poor mental health outcomes LGBTQ+ individuals. This theory claims that the default condition of an individual's nervous system is a stressed state, but the

physiological stress response is inhibited when the brain perceives safety cues (Brosschot et al., 2018). In the context of evolution this makes sense; it is better for animals to err on the side of caution rather than wait for further threat cues before entering 'fight or flight' mode (Brosschot et al., 2018). Two situations, described as 'compromised domains' in GUTS, are important to note in the context of applying this theory to gender minority stress. The first is compromised social context; in social animals like humans, being part of a group is an important part of staying safe. For example, living in a group means that watching for danger can be outsourced to multiple members, and individual vigilance can be reduced (Brosschot et al., 2018). When this social context is compromised, such as when people are isolated due to their status as a social minority, studies have shown that individuals experience a chronic physiological response that is extremely similar to the stress response (Savelle & Ellemers, 2024). For ancestral humans, rejection from one's social group posed a serious threat to survival, so the body's response to hostile social cues may have been as salient as its response to physical danger (Diamond et al., 2021). Following GUTS, the actual incidences of discrimination or danger alone are not what causes these disparities, but because the individual's nervous system is not receiving affirming cues that the group environment is safe, their stress response is chronically activated (Brosschot et al., 2018). Specific kinds of stressors can influence the way the body responds; for example, cognitive anticipation of stress, where one is anticipating discrimination or rejection, can be related to cortisol responses (Gaab et al., 2005).

The second domain of compromised body's is less researched but still warrants consideration due to the disconnection that trans people may feel from their body, known as gender dysphoria (American Psychological Association, 2013). A clean and capable body is essential to feeling safe; it needs to be strong enough to protect itself or run away from threats (Brosschot et al., 2018). However, in individuals with gender dysphoria, the body may feel

unsafe due to the physical incongruence with one's gender identity, thus potentially perpetuating the stress response (Mason et al., 2023).

Issues in Transgender Health Research

While recognizing the health disparities that trans people face is essential to implementing effective change to furthering progress health equality, there are issues in the way that transgender health research is carried out. The main narrative of transgender health research is conducted with a deficit focus, examining health disparities and what negative factors contribute to this (Reisner et al., 2016). This lens further perpetuates stigma against the transgender community, painting them as victims, or as leading risky lifestyles (Jones et al., 2016). Gahagan and Colpitts (2017) argue that this deficit model may obscure finding determinants that may promote health, and thus if the focus is only on the negatives, it is much harder to find constructive solutions. The inclusion of transgender perspectives is rare in constructing these studies, meaning that a cisnormative narrative and interpretation of findings maintains its authority in academia (LeBlanc et al., 2022). Studies that lack lived experience guidance from trans people miss out on topics that may be most important to the community (Gahagan & Colpitts, 2017). For example, research by LeBlanc et al. (2022) found that transgender participants wished for researchers to focus on positive factors that promote health in their community, rather than solely investigating risk factors.

Understanding the social determinants of health in transgender people is only recently gaining traction in research and remains a gap in critical knowledge for improving trans health outcomes (LeBlanc et al., 2022). Therefore, future research must be reframed from a deficit focus, and shift to a proactive perspective that collaborates with trans communities to explore what helps trans people survive despite a hostile society.

Transgender Youth

Adolescence is an important period of development, both physically and emotionally. In the context of GMS theory, adolescence is an especially difficult period for trans people in terms of stressors. Out of all demographic groups of trans people, those under the age of 35 face the most events of discrimination (Kattari & Hasche, 2016). The actual events of this discrimination are distal stressors and can be accompanied by proximal stress as apprehension of these acts of violence in the future (Testa et al., 2015). In both cases social safety is compromised, and following GUTS, this illustrates a serious need for environmental safety cues to be emphasised for trans youth. The consequences of these increased stressors are reflected in the higher rates of negative mental health outcomes that young trans people experience, like self-harm and suicide (Mackie et al., 2021). It is essential to support youth to cope with these stressors, as the long term effects of such stress can translate as lifelong physical and mental health issues (Mason et al., 2023).

The Youth'19 Rangatahi Smart Survey is the most recent of the Youth2000 surveys that investigates the health and wellbeing of secondary school students in New Zealand (Fleming et al., 2020). Out of the 7668 students surveyed, 78 reported that they identified as transgender or non-binary. This survey found that 56.6% of trans students had significant symptoms of depression (measured on the short form Reynolds Adolescent Depression Scale (RADS-SF)), and in the past 12 months, 56.9% had self-harmed, 52.1% had seriously considered suicide. Furthermore, 40.2% of trans students had made a plan to kill themselves, and 26.4% had attempted suicide (Fleming et al., 2020). All these statistics are markedly higher than their cisgender peers and reflects a mental health crisis in trans youth that demands immediate intervention.

Social supports are important protective factors for psychological wellbeing, particularly for young people. Adolescence is a period in which areas of the brain involved in

emotional regulation and social cognition experience critical development, making this age especially sensitive to social support or rejection (Blakemore & Mills, 2014). This is an especially critical time for transgender youth, as gender identity solidification generally tends to occur between the ages of 10-14 years old (Olson et al., 2016), meaning that for many trans youth, realising their identity may lie outside of the social norm intersects with a period where social acceptance is vital. Unfortunately, across all sources of social support, transgender youth experience lower levels of support than their cisgender peers (Gilbertson, 2025).

Educational Environments

Schools are an important social environment for young people; it is where resiliency and positive development take place, is the primary social hub for interaction, and can be a setting where youth explore their identities, including facets of their gender and sexuality (Toomey et al., 2011) (Gilbert et al., 2018). For transgender youth, school can be a difficult institution to navigate, as it tends to be the place where they face considerable discrimination and victimization (Bower-Brown et al., 2023). The architectural foundations and policies of schooling environments are rooted in cisgenderism, and this has significant consequences on the educational experiences of transgender students. For example, gender binaries are enforced with sex-based uniforms, bathrooms and changing rooms, sports teams, and single-sex schools themselves (McBride & Neary, 2021). The way cisgenderism is ingrained in how schools are structured leaves little room for gender expression, and renders gender non-conforming students as unwelcome. Jones et al. (2016) found that over 40% of trans students felt that this gender-based segregation was used too much in schools. Single sex bathrooms are often sites of violence against transgender students, and many of them try to avoid these spaces altogether (McBride & Neary, 2021). In terms of the actual education students are receiving at school, there is little visibility of gender diversity. LGBTQ+ topics, histories, and

identities are seldom incorporated in the schooling curriculum, and this is scarcer still for transgender topics (McBride, 2021). This curricular exclusion perpetuates trans people as invisible and indicates that their experiences are not worth learning about. Furthermore, this denies students who are trans from information that is important to their development, such as appropriate sexual education (McBride et al., 2020). A quote from one of McBride and Neary's (2021) participants summarises this; "Not only are people who aren't trans not being educated, but people who are trans don't know it exists and are suffering inside, [...] in silence' (Conal, 16, co-educational community school) (McBride & Neary, 2021).

According to Section 127(2) of the Education and Training Act 2020 one of the primary objectives of a school board in New Zealand is to ensure that the school "is a physically and emotionally safe place for all students and staff", and that the school "takes all reasonable steps to eliminate racism, stigma, bullying, and any other forms of discrimination within the school" ("Education and Training Act 2020," 2020, p. 133). Despite this legislation, 38.8% of transgender secondary school students reported being bullied because of their gender identity or sexuality in the past 12 months- compared to 1.7% of cisgender students (Fenaughty et al., 2022). This disparity indicates a negligence of trans students when it comes to upholding their safety.

To establish school as a safe environment for trans students, there must be explicit policies in place at the institutional level that protect and provide space for diverse gender identities (McBride, 2021). The absence of such policies reinforces institutionalized cisgenderism and indicates to transgender students that they are not accepted in their main place of socialization and development. This risks harm to their wellbeing by permitting their primary hub of social interaction and development to be hostile and unsafe. However, research has found practices that can increase trans students' perceptions of safety and school belonging such as:

- Having a gay-straight alliance (GSA) where LGBTQ+ students can safely socialize and talk about LGBTQ+ issues (Toomey et al., 2011), (Kosciw et al., 2020).
- Staff being informed about gender diversity and that intervene in instances of harassment (Ullman, 2019), (McGuire et al., 2010), (Kosciw et al., 2020).
- Students being taught about LGBTQ+ people and issues in their curriculum (Kosciw et al., 2020).
- Comprehensive anti-bullying policies that are intolerant of transphobia and homophobia (McBride, 2021), (Kosciw et al., 2020).
- Policies that allow transgender students to express their gender identity at school, such as flexible uniforms, access to appropriate bathrooms and changing rooms, and being able to have their name and pronouns be used in administration (Jones et al., 2016), (Kosciw et al., 2020).

Several of these policies have been linked to positive mental health outcomes in LGBTQ+ students, both directly and indirectly through improved feelings of safety and connection (McBride, 2021), (Toomey et al., 2011), (McGuire et al., 2010). However, research also shows that such indicators of positive school climates are rarely experienced by transgender students (Jones et al., 2016). Findings from the 2018 wave of the Counting Ourselves survey showed that several aspects of the schooling environment in New Zealand were unaccommodating for trans students; 59% reported that it was unsafe for trans and non-binary students to use a toilet or changing room that matches their gender, and less than half had access to a unisex bathroom at their school (Veale et al., 2019). Furthermore, only 23% agreed that the students at their school were educated about what it means to be transgender or non-binary. These are examples of where New Zealand schools are failing to uphold policies that have been shown to foster a safe environment for transgender students (Kosciw et al., 2020).

Studies that have examined the condition of school climates typically collect general findings by using multiple survey questions and calculating an average score as an indicator of school climate (Denny et al., 2016), (Colvin et al., 2019). This is useful for broad generalizations about how schools may be supportive places for trans students, but they lack the sensitivity to indicate what exact parts about the school makes it positive. For example, Denny et al. (2016) drew data from a large survey that used seven items to measure the supportiveness of the school environment and how it relates to mental health outcomes in sexual minority students. These questions included asking about supports in school such as belonging, if teachers go out of their way to help students, and if students get along with each other. Combining all these items to create one scale may lose information on what parts of the school climate make the school a positive environment; for example, students feeling belonging to their school may be more important for wellbeing than whether they get along with their teachers. Similar studies such as Colvin et al. (2019) and Veale et al. (2017) use this methodology, and while this has its merits for understandings about school as a whole for protective factors, much less is known about how specific supportive aspects of school relate to mental health outcomes (Martino & Cumming-Potvin, 2018).

In studies that do observe specific aspects of school climate, the framing of these aspects generally takes the form of a deficit lens. For example, when measuring school safety, Denny et al. (2016) enquired about rates of bullying at school. In relation to GUTS, incidences of victimization and violence are not the only indicators that the environment may be unsafe (Diamond & Alley, 2022), and approaching this topic in this way may exclude students that feel unsafe at school despite not being victims of peer harassment. Previous studies have shown that discrimination against trans students is experienced in many different forms, from gendered architecture to exclusive school policies and curricula (Bower-Brown

et al., 2023), and these hostilities still cause harm, despite not being a physical act of violence.

This deficit framing is frequently employed in research on trans experiences in educational institutions. A large portion of literature focuses on bullying and victimization at school, but there are far fewer studies that look at the impacts of a positive school climate on student wellbeing (Price & Green, 2023). For example, research investigating the impact that peer relationships may have on the wellbeing on trans students is often measured by rates of bullying, rather than collecting information on how supportive relationships may be protective (Mackie et al., 2021). The limited number of studies that do look at peer support are generally measured with varying indicators, such as number of supportive friends, or disclosure of gender identity. Price and Green (2023) highlight the lack of research of acceptance of gender identity as a form of support but found within their own study that students with at least one peer who was accepting of their gender identity had lower risks of attempting suicide. This is one example of research that disregards the deficit lens and focuses on what uplifts wellbeing.

Rationale

Considering the lack of large scale research into the schooling experiences of transgender youth in Aotearoa New Zealand post COVID-19 pandemic, this thesis aims to answer the following questions:

- What are the rates of psychological distress in transgender secondary school students in Aotearoa? Specifically,
 - How many transgender students have engaged in non-suicidal self-injury (NSSI), or had suicidal thoughts in the past year?
 - How many participants report high levels of psychological distress?
- How many transgender students experience a positive schooling environment?

- Are school staff and classmates supportive of participants gender identity?
- Do participants feel they belong at their school?
- How safe do participants feel at school?
- What is the relationship between positive school climate factors and mental health outcomes in trans students?

Based on the literature review, I expect that there will be high rates of psychological distress, NSSI, and suicidal thoughts in participants. Due to the role of social safety in stress responses, I predict that safety and belonging at school will be significant protective factors for mental health outcomes. There are mixed findings within the literature on how school based social supports can be protective for different facets of wellbeing, such as drug use (Gower et al., 2018) and suicidality (Taliaferro et al., 2019), but in the context of general mental health I predict that supportive staff and classmates will be protective against high levels of psychological distress, NSSI, and suicidal ideation.

CHAPTER TWO: METHODS

This chapter outlines the nature of the present study, and the steps taken in collecting and processing the data. First, I discuss the survey from which the data is drawn from, such as the recruitment and procedure. Next, I describe the research design, including participants and study measures. Finally, I outline the approach in analysing the data, such as the statistical tests used.

1. Study design

Counting Ourselves is a national community-based health and wellbeing survey of transgender and non-binary New Zealanders (Yee et al., 2025). This study draws on data from the second wave of the survey that was carried out in 2022. The survey was designed by the Counting Ourselves research team, guided by input from specific community advisors and organisations to gain an extensive and diverse perspective to capture the range of experiences that trans and non-binary New Zealanders have in Aotearoa. Topics covered in the survey included healthcare, education, employment, and experiences of discrimination to name a few. To be eligible for the survey, participants had to be aged 14 years or older, reside in Aotearoa New Zealand, and identify as transgender or non-binary.

The present study focuses on participants who were secondary school students. I chose to use data from the 2022 Counting Ourselves survey, as a large sample of transgender and non-binary youth was needed, with comprehensive information on their health and wellbeing and their experiences at school. As this study does not analyse primary data, it is important to note the implications of using secondary data analysis. Secondary data analysis is the analysis of data that has been collected by another researcher for another purpose (Johnston, 2014). The purpose of the Counting Ourselves survey was to understand a diverse range of aspects of what it means to be transgender in Aotearoa, whereas this study narrows its focus on secondary school students and their mental health. The main advantage of using

secondary data is convenience; by skipping the financial and logistical obstacles involved in primary data collection the research process is much faster (Trinh, 2018).

1.1 Ethics approval and ethical considerations

The Counting Ourselves project received ethics approval from the New Zealand Health and Disability Ethics Committee (approval no.18/NTB/66). Before gaining consent, participants were given information describing the intention and premise of the study, that answers would be anonymous and the data protected, and that participants could skip any questions and withdraw at any time. Questions regarding sensitive topics such as self-harm, conversion practices, and sexual violence were introduced with a content warning and offered the option to skip the question if they were not comfortable. Contact details of relevant support services were listed prior to showing sensitive questions (e.g. the Burnett Foundation Aotearoa was one suggested service prior to displaying questions regarding sexual health). Response data was stored on two factor authenticated password protected University of Waikato accounts. For paper answers, the participants contact details were deleted once the survey was posted out to them, and once the anonymous responses were digitally recorded, the paper copy was shredded.

1.2 Recruitment

Recruitment took place through social media channels such as Facebook and Instagram, as well as through word of mouth, two YouTube videos, and print advertisement. Leaders of trans communities across Aotearoa were approached and asked to share an image of themselves and a quote explaining the significance of this survey. Based on the results of the 2018 survey wave, underrepresented identities such as Māori, Pasifika, and Asian peoples were prioritised for this.

1.3 Data Collection/ Procedure

Data collection was carried out between 1 September and 14 December 2022. The survey was available online, and participants had the option to have a paper copy sent to them to complete in person. Before consent was obtained, information regarding the purpose of the survey, data storage, and potential risks were outlined in an information sheet. Those completing the survey online had the option to stop and return to the survey later within the same browser.

1.4 Participants

A total of 2,631 responses were included in the full data set. This study draws on 294 participants aged between 14 and 18 years old, who at the time were attending secondary school. To isolate participants from the entire survey data, only cases that answered ‘Yes’ to the question “Do you currently go to school?” were used. Since participants had to be at least 14 years old to participate, ‘School’ here refers to secondary school. Participant ages were checked, and any over the age of 18 years old were removed in case participants considered tertiary education ‘school’.

1.4.1 Age. The age range of the sample was 14 to 18 years old ($M= 16.0$ years, $SD=1.24$).

1.4.2 Gender. Information about participants gender was derived from a question asking ‘Recognising that we are giving you limited options, if you had to select one response that best describes your current gender (or equivalent gender in English), what would it be?’. Three options were provided: “non-binary, genderqueer, agender or similar identity”, “trans woman, woman, or girl”, and “trans man, man, or boy”. The majority of participants were those who chose non-binary, genderqueer agender, or similar identity ($n= 168$, 57.1%). Those who identified as a trans man, man, or boy consisted of 94 participants (32.0%), and the

remaining 28 identified as a trans woman, woman, or girl (9.5%). Four participants included in analysis did not answer this question.

1.4.3 Ethnicity. Participants could select or write in one or more ethnic groups they identified with. The New Zealand ethnicity prioritization method was used to assign each participant to one ethnicity, in a particular order (Māori, Pasifika, Asian peoples, and European/Other) (Health, 2017). The majority of the sample identified themselves as European ($n=218$, 75.7%). This was followed by Māori ($n=36$, 12.5%), Asian peoples ($n=30$, 10.4%), and Pasifika ($n=4$, 1.4%). Ethnicity data was missing from six participants.

2. Dependent variables

Dependent variables in this research were K10 distress scores, and if students had engaged in non-suicidal self-injury (NSSI) or had serious thoughts of suicide in the past 12 months.

2.1 K10 Psychological Distress Scores

Participants were given the ten questions from the Kessler Psychological Distress Scale as used by the NZ Health Survey (Oakley Browne et al., 2010). This scale rated responses on a five-point scale from 0 (*none of the time*) to 4 (*all of the time*), where the total scores ranged from 0-40. A score from 0-6 indicated none/low mental distress, 7-11 indicated moderate distress, 12-19 indicated high levels of distress, and 20-40 indicated very high levels of distress (Oakley Browne et al., 2010). In this study, the K10 scale demonstrated a high level of internal consistency ($\alpha = .908$) For this variable, I was interested in the difference between those scoring 'High' or 'Very High' on the K10 distress scale, against those scoring 'Moderate', 'Low', or 'None', as these scores indicate that the individual likely meets the criteria for a moderate or severe mental disorder, such as depression or anxiety. Using K10 scores to examine this removes the requirement for a diagnosis of a mental

disorder, which can be difficult to access for young trans people (Clark et al., 2014). To do this I binarized the responses, so that those who scored High or Very High were recoded as '1' and those who scored Moderate, Low, or None were recoded as '0'.

2.2 Non-Suicidal Self-Injury

NSSI (non-suicidal self-injury) was measured by a question asking 'During the last 12 months have you deliberately hurt yourself or done anything you knew might have harmed you (but not killed you)?', sourced from the Aotearoa/New Zealand Youth'12 survey (Clark et al., 2014). Response options were 'Not at all', 'Yes- once', 'Yes- two times', 'Yes- three times', and 'More than five times'. This was dichotomised for data analysis wherein the response 'Not at all' was coded as 'No', and all other responses (except for those missing) were coded as 'Yes'.

2.3 Suicidal Thoughts

Suicidal thoughts were measured by a question asking 'In the last 12 months have you seriously thought about killing yourself (attempting suicide)?', sourced from the Aotearoa/New Zealand Youth'12 survey (Clark et al., 2014). Response options were 'Not at all', 'Once or twice', and 'Three or more times'. This was binarized for analysis to 'No' if participants selected 'Never', and 'Yes' if they chose either 'Once or twice' or 'Three or more times'.

3. Independent variables

The following four variables were used to indicate supportiveness and safety of the secondary school environment.

3.1 Adult Support

I examined responses for the question 'How supportive are adults at your school of trans or non-binary students (for example, teachers, coaches, counsellors, or other school staff)?'. Response options included 'All the adults at my school are supportive', 'Most of the

adults at my school are supportive’, ‘About half of the adults at my school are supportive’, ‘Most of the adults at my school are not supportive’, ‘All of adults at my school are not supportive’, and ‘I don’t know’. This question was adapted from the 2015 US Transgender Survey (USTS) (James et al., 2016). This variable was dichotomised to simplify analysis. To do so, the responses ‘All the adults at my school are supportive’, ‘Most of the adults at my school are supportive’, and ‘About half of the adults at my school are supportive’ were coded as ‘Supportive’, and those who chose otherwise were coded as ‘Unsupportive’. The Unsupportive group included the ‘I don’t know’ response, as this was interpreted as that while adults may be supportive, the participant is not actively receiving that support.

3.2 Classmate support

To look at how the support of classmates of participants gender identities relate to measures of their mental health, responses for the question ‘How supportive are your classmates of you being trans or non-binary?’ were collected. Response options included ‘All my classmates are supportive’, ‘Most of my classmates are supportive’, ‘About half of my classmates are supportive’, ‘Most of my classmates are not supportive’, ‘All of my classmates are not supportive’, ‘I don’t know’, and ‘My classmates do not know that I am trans or non-binary’. This question was also sourced from the 2015 USTS (James et al., 2016). This variable was treated similarly to Adult Support, where responses were dichotomised into ‘Supportive’ and ‘Unsupportive’ for simplicity. The Supportive group was made up of those who responded, ‘All my classmates are supportive’, ‘Most of my classmates are supportive’, and ‘About half of my classmates are supportive’. The other responses were otherwise coded as Unsupportive; this included the ‘I don’t know’ and ‘My classmates do not know that I am trans or non-binary’, as this was interpreted as the participant not actively receiving support from those classmates.

3.3 Belonging

This variable was used to see how students' sense of belonging and being a part of their school predicted mental health measures, using responses to the question 'Do you feel like you are part of your school?'. Response options were either 'Yes' or 'No'. This question was sourced from the Aotearoa/New Zealand Youth'12 survey (Clark et al., 2014).

3.4 Safety

This variable measured how safe trans and non-binary students felt within their school, using the question 'Do you feel safe in your school/course?'. Responses included 'Yes, all the time', 'Yes, most of the time', 'Sometimes', 'No, mostly not', and 'Not at all'. This question was sourced from the Youth'19 Rangatahi Smart Survey (Fleming et al., 2020).

4. Data Analysis Approach

IBM SPSS Software (Version 30) was used to carry out data analysis. Statistical relationships were considered statistically significant if the p value was less than 5% (.05). All data is presented with 95% confidence intervals.

4.1 Univariate Analyses

To first initially explore the relationship between each of the independent (adult support, classmate support, belonging, and feelings of safety) and dependent (K10 scores, NSSI, and suicidal thoughts) variables, univariate analyses were performed by using chi-square tests of independence (χ^2).

4.2 Binary Logistic Regression Analyses

Binary logistic regressions were conducted entering all protective and demographic predictors to examine independent associations with psychological distress scores, NSSI, and suicidal thoughts. The demographic control variables used were gender and ethnicity. To

meet the assumptions of binary logistic regression, the dependent variables were transformed into dichotomous responses (the process of doing this is previously outlined in the descriptions of the dependent variables). This method was chosen because the independent variables of interest were categorical, and the dependent variables were easily categorised into binary terms. The variance inflation factors (VIF) were calculated to determine that the independent variables were not closely correlated to each other, thereby reducing the risk of collinearity. All VIF values were less than 10, which according to Myers (1990) is an appropriate cutoff to assume collinearity is unlikely. Effect sizes were measured using the odds ratios ($\text{Exp}(B)$)

CHAPTER THREE: RESULTS

In this chapter I will outline the results of this study, first presenting the frequencies of mental health outcomes and school climate responses in Tables 1 and 2, respectively.

Participants had the option to leave certain questions blank if they were not comfortable with answering, therefore not all percentages in the results table add up to 100%.

Table 1.

Mental health outcome frequencies (N=294)

Mental Health Outcome		<i>n</i>	%
K10 distress	High/Very High	265	90.1
	None/Low/Moderate	28	9.5
NSSI in past 12 months	Yes	213	72.4
	No	59	20.1
Suicidal thoughts in past 12 months	Yes	181	61.6
	No	27	9.2

Table 1 shows the frequencies of psychological distress, and whether participants had experienced NSSI or suicidal thoughts in the past 12 months. The results show high levels of these outcomes, with most participants experiencing high psychological distress.

Table 2.

School climate measure frequencies (N=294)

Climate Variable		<i>n</i>	%
Adult Support	Supportive	235	79.9
	Unsupportive	56	19.0

Classmate Support	Supportive	183	56.5
	Unsupportive	108	36.7
Belonging	Yes	166	56.5
	No	122	41.5
Safety	All the time	31	10.5
	Most of the time	112	38.1
	Sometimes	91	31.0
	Mostly not	46	15.6
	Not at all	11	3.7

Table 2 shows that nearly 80% of students felt that half or more of the adults at their school were supportive of their trans identity, but fewer students (56.5%) reported that half or more of their classmates were supportive of their identity. Just over half of students reported that they felt they belonged at their school. The most common answer for how safe students felt at their school was ‘Most of the time’, and only 3.7% reported not feeling safe at all.

K10 Scores

A chi-square test of independence was performed to examine the relationship between each of the school climate variables and K10 distress scores. Adult support was significantly associated, ($\chi^2(5, N = 290) = 26.307, p < .001$), as was belonging, ($\chi^2(1, N = 287) = 15.026, p < .001$), and safety ($\chi^2(4, N = 290) = 40.848, p < .001$).

A multivariable binary logistic regression analysis was run to investigate the effect of school safety, belonging, adult support, and classmate support on the likelihood of having a high or very high K10 distress score, while controlling for gender and ethnicity. These results can be viewed in Table 3. The model was statistically significant ($\chi^2(9) = 56.482, p < .001$) and explained 39.6% of variance within the model (Nagelkerke $R^2 = .396$), while correctly

classifying 91.5% of cases. After controlling for gender and ethnicity, three school climate predictors were significant contributors: Safety, Classmate Support, and Belonging. Using the odds ratio of this regression, for every one unit increase in safety at school, students had 85.7% lower odds of reporting a high or very high K10 score. Classmate support was another significant predictor, where students with unsupportive classmates had 5.7 times higher odds of having a high or very high K10 score. Belonging was the final predictor of K10 scores in our sample. Students who felt that they belonged at school had 87.4% lower odds of having a high or very high K10 score. The other predictor variable, Adult Support, was found to be an insignificant contributor to this model of K10 scores.

Table 3. *Binary Logistic Regression of Predictor and Control Variables for K10 Scores for Trans Students*

Variable	<i>B</i>	<i>SE</i>	Wald	Sig	Exp(<i>B</i>)	95% C.I. for Exp(<i>B</i>)	
						Lower	Upper
Adult Support	.435	.751	.336	.562	1.546	.354	6.742
Classmate Support	1.747	.618	7.983	.005	5.740	1.708	19.289
Belonging	-2.075	.891	5.420	.020	.126	.022	.720
Safety	-1.945	.425	20.968	<.001	.143	.062	.329
Māori			2.419	.490			
Pacific Peoples	-.350	1.139	.094	.759	.705	.076	6.574
Asian	-.778	1.087	.512	.474	.459	.055	3.870
European	.484	.666	.527	.468	1.622	.439	5.990
Trans Man			3.326	.190			
Trans Woman	.027	.755	.001	.972	1.027	.234	4.507
Non-Binary	.944	.583	2.620	.106	2.570	.820	8.058

NSSI

A chi-square test of independence was performed to examine the relationship between each of the school climate variables and NSSI in the past 12 months. Safety was significantly associated with NSSI, $\chi^2(4, N=269) = 16.683, p = .002$.

A multivariable binary logistic regression analysis was run to investigate the effects of school safety, belonging, adult support, and classmate support on the likelihood of participants having self-harmed in the past 12 months, while accounting for ethnicity and gender. These results can be viewed in Table 4. The model was statistically significant ($\chi^2(9) = 18.468, p = .030$) and explained 10.6% of variance within the model (Nagelkerke $R^2 = .106$), while correctly classifying 80.1% of cases. Safety was the only significant predictor; for every unit increase in safety, students had 43.1% lower odds of self-harming in the past 12 months.

Table 4.

Binary Logistic Regression of Predictor and Control Variables for NSSI in Past Twelve Months in Trans Students

Variable	<i>B</i>	<i>SE</i>	Wald	<i>Sig</i>	Exp(<i>B</i>)	95% C.I. for Exp(<i>B</i>)	
						Lower	Upper
Adult Support	.534	.423	1.595	.207	1.706	.745	3.911
Classmate Support	.327	.378	.747	.387	1.386	.661	2.908
Belonging	-.330	.370	.797	.372	.719	.348	1.483
Safety	-.565	.194	8.500	.004	.569	.389	.831
Māori			2.671	.445			
Pacific Peoples	-.928	.802	1.337	.248	.395	.082	1.905
Asian	-.663	.824	.649	.421	.515	.103	2.588
European	.054	.446	.015	.903	1.056	.440	2.530
Trans Man			1.247	.536			
Trans Woman	-.354	.590	.360	.548	.702	.221	2.230

Non-Binary	-.421	.378	1.240	.266	.656	.313	1.377
------------	-------	------	-------	------	------	------	-------

Suicidal Thoughts

A chi-square test of independence was performed to examine the relationship between each of the school climate variables and suicidal thoughts in the past twelve months. Adult support ($\chi^2(5, N=205) = 13.195, p = .022$), belonging ($\chi^2(1, N=204) = 6.924, p = .009$), and safety ($\chi^2(4, N=205) = 22.489, p < .001$) were significantly associated with suicidal thoughts in the past 12 months.

A multivariable binary logistic regression analysis was run to investigate the effects of school safety, belonging, adult support, and classmate support on the likelihood of participants having had suicidal thoughts in the past 12 months, while controlling for gender and ethnicity. These results can be viewed in Table 5. The model was statistically significant ($\chi^2(9) = 24.641, p = .003$) and explained 21.2% of variance within the model (Nagelkerke $R^2 = .212$) while correctly classifying 87.0% of cases. Safety was the only significant predictor, and for every unit increase in safety, students had 60.9% lower odds of seriously considering attempting suicide in the past 12 months.

Table 5.

Binary Logistic Regression of Predictor and Control Variables for Suicidal Thoughts in the Past 12 Months in Trans Students

Variable	<i>B</i>	<i>SE</i>	Wald	Sig	Exp(<i>B</i>)	95% C.I. for Exp(<i>B</i>)	
						Lower	Upper
Adult Support	-.067	.722	.009	.926	.935	.227	3.850
Classmate Support	-.323	.628	.265	.606	.724	.212	2.476

Belonging	-.560	.562	.993	.319	.571	.190	1.719
Safety	-.938	.307	9.342	.002	.391	.215	.714
Māori			2.784	.426			
Pacific Peoples	-.068	1.109	.004	.951	.934	.106	8.207
Asian	-.463	1.292	.129	.720	.629	.050	7.917
European	.744	.567	1.719	.190	2.104	.692	6.394
Trans Man			1.581	.454			
Trans Woman	.662	.911	.528	.468	1.938	.325	11.551
Non-Binary	-.345	.505	.466	.495	.709	.264	1.905

CHAPTER FOUR: DISCUSSION

This study has found several protective factors that predict various mental health outcomes in transgender secondary school students. The most common factor was safety, predicting fewer suicidal thoughts ($p = .002$) and NSSI ($p = .004$) in the last 12 months, as well as predicting lower K10 distress scores ($p < .001$) in the regression analyses.

Additionally, I found that Classmate Support and Belonging predicted lower K10 distress scores, although this significance did not apply to NSSI or suicidal thoughts. Furthermore, Adult Support did not occur as a significant predictor in our logistic regressions but was significant for univariate analyses on psychological distress and suicidal thoughts. The following chapter will link these findings to existing literature and make suggestions as to what may have contributed to these outcomes.

Univariate vs Multivariate Analysis Results

It is worth exploring the differences between the univariate and multivariable analyses, and what they imply for the results. In terms of K10 distress scores, adult support, belonging, and safety were significant predictors in the univariate analyses. When performing the multivariable regression analysis, each independent variable was added to the model simultaneously, as well as gender and ethnicity controls. After accounting for these variables together in the regression model, adult support was no longer significant ($p = .562$), but safety and belonging still were ($p = .005$, $p = .020$ respectively). Additionally, classmate support emerged as a significant predictor within the regression model, even though it was not significant on its own in the univariate analysis. This means that after adjusting for the other predictors like teacher support, and gender and ethnicity, the unique effect of classmate support became detectable at a significant level and supports the notion that classmate acceptance and affirmation of gender identity is associated with positive wellbeing of trans students.

When analysing the results for NSSI, the univariate and regression tests produced the same response, where safety was the only significant predictor for NSSI. The results for suicidal ideation showed that while adult support, belonging, and safety were significant on their own in the univariate analyses, safety was the only significant predictor when accounting for the other variables and controls in the regression analysis. These results highlight school safety as an extremely important consideration as a social contributor to psychological wellbeing for trans and non-binary students. Additionally, adult support, classmate support, and belonging each were significantly associated in univariate and regression analyses across psychological distress scores and incidences of NSSI and suicidal thoughts, indicating that these social factors are all also important in predicting wellbeing in trans students.

MH Outcomes:

This study's results showed alarmingly high levels of negative mental health outcomes in the sample of young transgender New Zealanders. Over 90% had K10 scores that indicate high or very high psychological distress, nearly three quarters had engaged in NSSI, and over 60% had seriously considered taking their own life in the past twelve months. These rates are similar to studies of trans youth in Canada in regards to NSSI (Veale et al., 2017). Hatchel et al. (2019) conducted a study on transgender adolescents in California and found that 41% of their transgender participants had felt suicidal in the past twelve months; markedly less than the present findings, but as previously stated, New Zealand has the one of the highest rates of youth suicide in the OECD (Unicef, 2025). This affirms the severity of the mental health crisis facing young trans people in New Zealand, further demanding the need for stronger social support and safer environments for trans youth.

Safety

Nearly half of participants reported feeling safe at school all or most of the time (10.5% and 38.1% respectively), and less than 20% did not feel safe at all or most of the time at school (3.7% and 15.6% respectively). Compared to the Identify survey of rainbow students in Aotearoa, the levels of safety in this study are slightly lower; 49% of the Identify participants felt safe or very safe at school, 35% felt neutral, and 16% felt unsafe or very unsafe (Fenaughty et al., 2022). However, it is worth noting that this sample included cisgender queer students, not just transgender. Univariate analysis showed safety to be associated with all three mental health outcomes, and further logistic regression found that safety was a significant predictor for lower K10 distress scores, and lower odds of students self-harming or seriously considering suicide within the last 12 months. These findings align with similar studies on transgender students; Gower et al. (2018) found that feeling safe at school was significantly protective against depression and suicidality, and Taliaferro et al. (2019) found that school safety was a distinguishing factor between students who self-harmed and had attempted suicide. Considering GUTS and social safety, these findings add to the importance of feeling safe in one's environment and social group, due to the presence of perceived safety being significantly protective against psychological distress.

Peer support

Over 50% of participants agreed that all or most of their classmates were supportive of their transgender identity. Compared to the 2018 wave of the Counting Ourselves survey, these rates of classmate acceptance were slightly higher (56.5% vs 52.0%) (Veale et al., 2019). Despite showing no significant association with mental health outcomes in univariate analysis, classmate support was a significant predictor of psychological distress after accounting for demographic and other school environment variables in the logistic regression analysis. While the notion of supportive peers is emerging as a protective factor for the

mental health of transgender individuals, studies are generally limited by varying scopes and measurement of support (Price & Green, 2023). Particularly in educational settings, past research tends to focus on the negative impact of peer victimisation and bullying. Price and Green (2023) looked at identity acceptance as a form of support from classmates and found that transgender youth who reported high acceptance of their gender identity were less likely to have attempted suicide than those who reported low to no acceptance. By measuring perceived support directly in relation to classmates, rather than friends or ‘peers’ in general, the present study adds to findings in the context of social groups within everyday classroom settings. In terms of social safety, this means that acceptance of one’s gender identity may be a safety cue; even if classmates are not explicitly friends, they are sources of frequent social interaction, and thus feeling accepted by them may signal to the trans student that they are in a safe social context, and this acceptance cue may inhibit their stress response (Brosschot et al., 2018).

Adult Support

Reports of staff support at school were generally positive, with nearly 80% of participants agreeing that over half of the adults at their school were supportive of their gender identity. This is far more positive than results from the Free2Be? project that surveyed LGBTQ+ Australian adolescents, where 43% of gender diverse students felt their teachers were never positive about transgender identities (Ullman, 2019). Univariate analysis found adult support to be associated with psychological distress and suicidal thoughts, however, when accounting for demographic and other protective variables in logistic regression analyses, this association was no longer significant. This fits with existing literature, wherein Gower et al. (2018) and Taliaferro et al. (2019) also found no significant association between the quality of student-teacher relationships and the mental health of trans students (after accounting for additional demographic predictors). Both studies used a four-item

measurement to measure the quality of the relationship between students and teachers, whereas the present study used one question to see whether adults at school were supportive of trans identities. However this is by no means to suggest that the role of supportive teachers is not important to trans students; many other qualitative and quantitative studies have established that relationships with supportive educators help maintain a positive academic experience for trans students (Johns et al., 2018), and improve students feelings of safety at school (McGuire et al., 2010). Further in-depth investigation into the quality of teacher relationships with trans students in Aotearoa is called for, as while this study revealed no effect of adult supportiveness on the mental health variables when accounting for other variables, only one binary item was used to measure the quality of this support. Given that other research has found teacher support can protect students' academic experiences, investigating potential mediation pathways for how this relationship could indirectly impact the mental health of trans students is warranted. For example, a systemic review by McBride et al. (2021) found that staff who were supportive of trans students contributed to stronger feelings of belonging at school, which in turn has been linked to more positive mental health outcomes (Hatchel et al., 2019), (Veale et al., 2017). Considering the relationship between social safety and stress, affirmation of gender identity may act as a safety cue that reassures the student that they are safe, and thus potentially reducing their bodies stress response. This is supported by the findings of Aversa et al. (2022), who found that positive wellbeing and sense of safety was amplified within environments where participants received social gender affirmation.

Belonging

Over half of participants reported feeling that they belonged at their school. This is higher than the Identify study, which found that 44% of rainbow New Zealand students reported feeling that they belonged at their school (Fenaughty et al., 2022). Univariate

analysis found belonging to be associated with psychological distress and suicidal thoughts. When accounting for other protective and control variables, this association was reduced to only predicting psychological distress significantly. This study has similar findings to Veale et al. (2017)'s Canadian study, wherein school belonging was protective against extreme stress and despair, but not significantly for non-suicidal self-injury or suicidality. In contrast, Hatchel et al. (2019)'s study found that school belonging was significantly protective against depressive symptoms, suicidal ideation, and distress. However, it is worth noting that their measure of school belonging was a sum of a five-item scale, including questions like 'I am happy to be at this school', whereas the present study's measurement of belonging was directly asking the participant if they felt they belonged at their school. A study of secondary students in Aotearoa that used the same item to measure belonging found that gender diverse students that agreed they belonged at their school had greater academic achievement than those who did not (Fenaughty et al., 2019). The ways that school belonging is measured varies considerably between studies and can be considered to encompass other variables such as connectedness and inclusion. This makes it harder to compare findings, but these results indicate that belonging plays a significant role in psychological distress in transgender students. Belonging and inclusion are essential components in social safety; from an evolutionary standpoint being part of a social group offers 'safety in numbers', where the wider group can outsource the job of scanning for predators, as well as protect each other from attacks (Brosschot et al., 2018). Compromised social context is a domain in GUTS supported by the chronic stress responses seen in social animals when they are isolated (Brosschot et al., 2018). In adolescence, connection and belonging is a crucial part of development, wherein from peers, family, schools, and community, they develop a sense of being cared for (Blum et al., 2022). Therefore, because school is a major site of socialisation

for adolescents, these findings support that feeling included in social groups at school has important implications in mental wellbeing.

Implications

One of the biggest takeaways from this work is the importance of feeling safe at school. Due to the significance of school safety as a common protective factor across psychological distress, NSSI, and suicidal thoughts, the attention of educators and policy makers must be directed to focus on fostering a safe school environment for all students. This study found that less than half of trans participants felt safe at school all or most of the time (48.6%). This is not good enough; in comparison, the national Youth'19 survey of secondary school students found that 87% of students in Aotearoa felt safe all or most of the time at school (Fleming et al., 2021).

In comparing the univariate and regression analyses, the support of adults and peers, as well as belonging, may be potential mediators for how safe schools may improve wellbeing. Previous studies have made similar connections; McGuire et al. (2010) found that when teachers and staff intervened in incidences of transphobia, trans students felt greater connections to staff, which was indirectly associated with feeling safer at school. Students in this study suggested that LGBTQ+ training should be mandatory for school staff, and that teachers ought to be required to intervene when harassment occurs. Greytak et al. (2009) found that trans students felt more school belonging when they were able to fully participate as the gender they identify as. Improving this participation could look like reducing barriers to PE and sport by implementing gender neutral bathrooms and changing rooms, and having space to discuss LGBTQ+ issues in the classroom (Greytak et al., 2009). In terms of improving peer support, tackling the issue of high rates of peer victimisation is essential, and could be actioned by employing anti-bullying policies that are explicitly intolerant of transphobia. Additionally, including transgender identities and stories in the school

curriculum could potentially improve peer support by educating students on gender diversity and reducing misconceptions about trans people. Much of these interventions need to take place on an individual level (i.e. teachers need to take action when they witness victimisation) but can be led by policy changes from the government that actively recognise the struggles that trans students face in cisnormative educational institutions.

Limitations

While evaluating this study's findings, several limitations must be considered. The demographics of participants was predominantly of those of European descent (75.7%), with fewer Māori and Pacifica participants (12.5% and 1.4% respectively). Compared to the Youth'19 survey of New Zealand secondary school students these demographics are considerably different; with 19.8% Māori, 12.3% Pacific, 23.0 Asian, 39.8% European, and 5.04% another ethnicity (Fleming et al., 2020). This lack of ethnic diversity may mask differing results for different ethnicities, especially because students of colour may experience additional minority stressors of racism, which could compound psychological distress. However, an important part of designing the analysis pathway for this study was controlling for ethnicity, and it was not found to be a significant variable in analysis. Due to the non-probability sampling procedure of the Counting Ourselves survey, targeted outreach steps were undertaken to reach underrepresented groups, such as attending the national Takatāpui hui and collaborating with Pasifika youth fono (Yee et al., 2025). Hatchel et al. (2019) specifically investigated school experiences of trans students of colour and how they relate to mental health outcomes and found that ethnicity was not a moderator of the relationship between peer victimisation and psychological issues. Ultimately it is still essential to employ an intersectional lens in this kind of work, as previous research on transgender health has often been dominated by white middle class participants, and Māori youth have been found experience greater mental health difficulties than Pakeha (Theodore et

al., 2022). Future studies could employ focus groups and hui to collect in depth perspectives of Māori and Pasifika trans youth by way of qualitative data to gather invaluable perspectives of their experiences.

Another underrepresented group in the sample were trans women; 168 (57.1%) participants identified as non-binary, 94 (32.0%) as trans men, and 28 (9.5%) as trans women. Although the data analyses controlled for gender identity, this is an imbalance that may mask notable disparities in schooling experiences for trans women. This is especially important to recognize, as transgender women and genderqueer AMAB (assigned male at birth) youth have been found to experience the highest levels of polyvictimisation compared to other trans gender identities (Sterzing et al., 2017). However, the present study did not include the sex assigned at birth of participants who identified as non-binary in its analysis, so there are likely more participants who were AMAB than just the 28 trans women.

When carrying out the statistical analyses, gender identity and ethnicity were controlled for, but given the complex and multifaceted components that contribute to mental wellbeing, especially in transgender youth, there are other considerable factors that may have affected the findings. For example, some of the most significant predictors of mental health in trans youth exist outside of the educational environment- particularly family support and access to gender affirming care (Veale et al., 2017). Future studies may benefit from controlling for these factors or investigating how they compare in the effect sizes of their protectiveness with supportive school factors. Regardless, the importance of social safety has been strongly established in psychological wellbeing, and this thesis strongly supports that school safety is a key component in supporting transgender youth.

Conclusion

This study provides greater insights into how social supports within schooling environments can foster psychological wellbeing in transgender students. Schools are ill-

equipped to meet the needs of transgender youth (McBride, 2021), but I have found that supportive teachers and classmates, having a sense of belonging at school, and feeling safe at school can predict lower instances of NSSI and suicidal ideation, and levels of psychological distress. Due to the high rates of these mental health issues in trans youth, these results highlight that these supports may be important targets for creating a positive and safe social space for trans students. Too often do trans youth not make it to adulthood, but by ensuring that their main social sphere of school is safe for them to express their identity may make a vital difference.

References

- American Psychological Association, A. (2013). Diagnostic and statistical manual of mental disorders.
- Aversa, I., Coleman, T., Travers, R., Coulombe, S., Wilson, C., Woodford, M. R., Davis, C., Burchell, D., & Schmid, E. (2022). “I’m always worried”: exploring perceptions of safety and community inclusion among transgender people. *International Journal of Community Well-Being*, 5(1), 37-54.
- Blakemore, S.-J., & Mills, K. L. (2014). Is adolescence a sensitive period for sociocultural processing? *Annual review of psychology*, 65, 187-207.
- Blum, R. W., Lai, J., Martinez, M., & Jessee, C. (2022). Adolescent connectedness: cornerstone for health and wellbeing. *bmj*, 379.
- Bower-Brown, S., Zadeh, S., & Jadvā, V. (2023). Binary-trans, non-binary and gender-questioning adolescents’ experiences in UK schools. *Journal of LGBT Youth*, 20(1), 74-92.
- Brosschot, J. F., Verkuil, B., & Thayer, J. F. (2018). Generalized unsafety theory of stress: Unsafe environments and conditions, and the default stress response. *International journal of environmental research and public health*, 15(3), 464.
- Clark, T. C., Lucassen, M. F., Bullen, P., Denny, S. J., Fleming, T. M., Robinson, E. M., & Rossen, F. V. (2014). The health and well-being of transgender high school students: results from the New Zealand adolescent health survey (Youth'12). *Journal of adolescent health*, 55(1), 93-99.
- Colvin, S., Egan, J. E., & Coulter, R. W. S. (2019). School Climate & Sexual and Gender Minority Adolescent Mental Health. *Journal of Youth and Adolescence*, 48(10), 1938-1951. <https://doi.org/10.1007/s10964-019-01108-w>

- Denny, S., Lucassen, M. F., Stuart, J., Fleming, T., Bullen, P., Peiris-John, R., Rossen, F. V., & Utter, J. (2016). The association between supportive high school environments and depressive symptoms and suicidality among sexual minority students. *Journal of Clinical Child & Adolescent Psychology*, 45(3), 248-261.
- Diamond, L. M., & Alley, J. (2022). Rethinking minority stress: A social safety perspective on the health effects of stigma in sexually-diverse and gender-diverse populations. *Neuroscience & Biobehavioral Reviews*, 138, 104720.
- Diamond, L. M., Dehlin, A. J., & Alley, J. (2021). Systemic inflammation as a driver of health disparities among sexually-diverse and gender-diverse individuals. *Psychoneuroendocrinology*, 129, 105215.
- Education and Training Act 2020, 133
- (2020). <https://www.legislation.govt.nz/act/public/2020/0038/latest/LMS170676.html>
- Fenaughty, J., Ker, A., Alansari, M., Besley, T., Kerekere, E., Pasley, A., Saxton, P., Subramanain, P., Thomsen, P., & Veale, J. (2022). Identify survey: Community and advocacy report.
- Fenaughty, J., Lucassen, M. F., Clark, T., & Denny, S. (2019). Factors associated with academic achievement for sexual and gender minority and heterosexual cisgender students: Implications from a nationally representative study. *Journal of Youth and Adolescence*, 48(10), 1883-1898.
- Fleming, T., Archer, D., King-Finau, T., Dewhirst, M., & Clark, T. (2021). Youth19 safety and violence brief.
- Fleming, T., Peiris-John, R., Crengle, S., Archer, D., Sutcliffe, K., Lewycka, S., & Clark, T. (2020). *Youth19 Rangatahi Smart Survey initial findings: introduction and methods*. Youth19 Research Group.

- Gaab, J., Rohleder, N., Nater, U. M., & Ehlert, U. (2005). Psychological determinants of the cortisol stress response: the role of anticipatory cognitive appraisal. *Psychoneuroendocrinology*, 30(6), 599-610.
- Gahagan, J., & Colpitts, E. (2017). Understanding and measuring LGBTQ pathways to health: A scoping review of strengths-based health promotion approaches in LGBTQ health research. *Journal of homosexuality*, 64(1), 95-121.
- Gilbert, J., Fields, J., Mamo, L., & Lesko, N. (2018). Intimate possibilities: The beyond bullying project and stories of LGBTQ sexuality and gender in US schools. *Harvard Educational Review*, 88(2), 163-183.
- Gilbertson, M. L. (2025). Social Support and School Belonging for Gender Diverse Students. *Psychology in the Schools*, 62(6), 1913-1925.
- Gower, A. L., Nic Rider, G., Brown, C., McMorris, B. J., Coleman, E., Taliaferro, L. A., & Eisenberg, M. E. (2018). Supporting transgender and gender diverse youth: Protection against emotional distress and substance use. *American Journal of Preventive Medicine*, 55(6), 787-794.
- Greytak, E. A., Kosciw, J. G., & Diaz, E. M. (2009). *Harsh Realities: The Experiences of Transgender Youth in Our Nation's Schools*. ERIC.
- Hatchel, T., Valido, A., De Pedro, K. T., Huang, Y., & Espelage, D. L. (2019). Minority stress among transgender adolescents: The role of peer victimization, school belonging, and ethnicity. *Journal of Child and Family Studies*, 28, 2467-2476.
- Health, M. o. (2017). HISO 10001: 2017 ethnicity data protocols. *Wellington: Ministry of Health*.
- James, S., Herman, J., Rankin, S., Keisling, M., Mottet, L., & Anafi, M. a. (2016). The report of the 2015 US transgender survey.

- Johns, M. M., Beltran, O., Armstrong, H. L., Jayne, P. E., & Barrios, L. C. (2018). Protective factors among transgender and gender variant youth: A systematic review by socioecological level. *The journal of primary prevention*, 39(3), 263-301.
- Johnston, M. P. (2014). Secondary data analysis: A method of which the time has come. *Qualitative and quantitative methods in libraries*, 3(3), 619-626.
- Jones, T., Smith, E., Ward, R., Dixon, J., Hillier, L., & Mitchell, A. (2016). School experiences of transgender and gender diverse students in Australia. *Sex education*, 16(2), 156-171.
- Kattari, S. K., & Hasche, L. (2016). Differences across age groups in transgender and gender non-conforming people's experiences of health care discrimination, harassment, and victimization. *Journal of aging and health*, 28(2), 285-306.
- Kosciw, J. G., Clark, C. M., Truong, N. L., & Zongrone, A. D. (2020). *The 2019 National School Climate Survey: The Experiences of Lesbian, Gay, Bisexual, Transgender, and Queer Youth in Our Nation's Schools. A Report from GLSEN*. ERIC.
- LeBlanc, M., Radix, A., Sava, L., Harris, A. B., Asquith, A., Pardee, D. J., & Reisner, S. L. (2022). "Focus more on what's right instead of what's wrong:" research priorities identified by a sample of transgender and gender diverse community health center patients. *BMC Public Health*, 22(1), 1741.
- Mackie, G., Lambert, K., & Patlamazoglou, L. (2021). The mental health of transgender young people in secondary schools: A scoping review. *School mental health*, 13(1), 13-27.
- Martino, W., & Cumming-Potvin, W. (2018). Transgender and gender expansive education research, policy and practice: Reflecting on epistemological and ontological possibilities of bodily becoming. In (Vol. 30, pp. 687-694): Taylor & Francis.

- Mason, A., Crowe, E., Haragan, B., Smith, S., & Kyriakou, A. (2023). Gender dysphoria in young people: a model of chronic stress. *Hormone Research in Paediatrics*, 96(1), 54-65.
- McBride, R.-S. (2021). A literature review of the secondary school experiences of trans youth. *Journal of LGBT Youth*, 18(2), 103-134.
- McBride, R.-S., & Neary, A. (2021). Trans and gender diverse youth resisting cisnormativity in school. *Gender and Education*, 33(8), 1090-1107.
- McBride, R.-S., Neary, A., Gray, B., & Lacey, V. (2020). The post-primary school experiences of transgender and gender diverse youth in Ireland.
- McGuire, J. K., Anderson, C. R., Toomey, R. B., & Russell, S. T. (2010). School climate for transgender youth: A mixed method investigation of student experiences and school responses. *Journal of Youth and Adolescence*, 39, 1175-1188.
- Meyer, I. H. (2003). Prejudice, social stress, and mental health in lesbian, gay, and bisexual populations: conceptual issues and research evidence. *Psychological bulletin*, 129(5), 674.
- Myers, R. H. (1990). *Classical and modern regression with applications* (Vol. 2). Duxbury press Belmont, CA.
- Oakley Browne, M. A., Wells, J. E., Scott, K. M., McGee, M. A., & Team, N. Z. M. H. S. R. (2010). The Kessler psychological distress scale in Te Rau Hinengaro: the New Zealand mental health survey. *Australian & New Zealand Journal of Psychiatry*, 44(4), 314-322.
- Olson, K. R., Durwood, L., DeMeules, M., & McLaughlin, K. A. (2016). Mental health of transgender children who are supported in their identities. *Pediatrics*, 137(3), e20153223.

- Price, M. N., & Green, A. E. (2023). Association of gender identity acceptance with fewer suicide attempts among transgender and nonbinary youth. *Transgender health*, 8(1), 56-63.
- Reisner, S. L., Deutsch, M. B., Bhasin, S., Bockting, W., Brown, G. R., Feldman, J., Garofalo, R., Kreukels, B., Radix, A., & Safer, J. D. (2016). Advancing methods for US transgender health research. *Current Opinion in Endocrinology, Diabetes and Obesity*, 23(2), 198-207.
- Riggs, D. W., Ansara, G. Y., & Treharne, G. J. (2015). An evidence-based model for understanding the mental health experiences of transgender Australians. *Australian Psychologist*, 50(1), 32-39.
- Savelle, N., & Ellemers, N. (2024). Organizing social safety: An integration of theoretical approaches. *Social and Personality Psychology Compass*, 18(12), e70029.
- Sterzing, P. R., Ratliff, G. A., Gartner, R. E., McGeough, B. L., & Johnson, K. C. (2017). Social ecological correlates of polyvictimization among a national sample of transgender, genderqueer, and cisgender sexual minority adolescents. *Child Abuse & Neglect*, 67, 1-12.
- Taliaferro, L. A., McMorris, B. J., Rider, G. N., & Eisenberg, M. E. (2019). Risk and protective factors for self-harm in a population-based sample of transgender youth. *Archives of suicide research*, 23(2), 203-221.
- Tan, K. K., Ellis, S. J., Schmidt, J. M., Byrne, J. L., & Veale, J. F. (2020). Mental health inequities among transgender people in Aotearoa New Zealand: Findings from the Counting Ourselves Survey. *International journal of environmental research and public health*, 17(8), 2862.

- Testa, R. J., Habarth, J., Peta, J., Balsam, K., & Bockting, W. (2015). Development of the gender minority stress and resilience measure. *Psychology of Sexual Orientation and Gender Diversity*, 2(1), 65.
- Theodore, R., Bowden, N., Kokaua, J., Ruhe, T., Hobbs, M., Hetrick, S., Marek, L., Wiki, J., Milne, B., & Thabrew, H. (2022). Mental health inequities for Māori youth: a population-level study of mental health service data. *NZ Med J*, 135(1567), 79-90.
- Toomey, R. B., Ryan, C., Diaz, R. M., & Russell, S. T. (2011). High school gay–straight alliances (GSAs) and young adult well-being: An examination of GSA presence, participation, and perceived effectiveness. *Applied developmental science*, 15(4), 175-185.
- Trinh, Q.-D. (2018). Understanding the impact and challenges of secondary data analysis. *Urologic Oncology: Seminars and original investigations*,
- Ullman, J. (2019). Teacher positivity towards gender diversity: Exploring relationships and school outcomes for transgender and gender-diverse students. In *Gender and Sexuality in Education and Health* (pp. 42-55). Routledge.
- Unicef. (2025). Innocenti report card, 19: Child well-being in an unpredictable world. In: Unicef.
- Veale, J., Byrne, J., Tan, K. K., Guy, S., Yee, A., Nopera, T. M.-L., & Bentham, R. (2019). *Counting Ourselves: The health and wellbeing of trans and non-binary people in Aotearoa New Zealand*. Transgender Health Research Lab.
- Veale, J. F., Peter, T., Travers, R., & Saewyc, E. M. (2017). Enacted stigma, mental health, and protective factors among transgender youth in Canada. *Transgender health*, 2(1), 207-216.

Yee, A., Bentham, R., Byrne, J. L., Ker, A., Norris, M., Tan, K. K., Jones, H., Polkinghorne, T., Gonzalez, S., & Withey-Rila, C. (2025). Counting ourselves: Findings from the 2022 Aotearoa New Zealand trans and non-binary health survey.