Testing a suicidal ideation-to-action framework among Queer and Takatāpui people in Aotearoa New Zealand: An examination of the three-step theory

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The three-step theory (3ST) of suicide is well-established in the general population and shows promise for explaining suicidal ideation among Queer samples. This study examined the applicability of the 3ST using data from 250 Queer (n = 213) and Takatāpui (n = 37) people aged 18-74 living in Aotearoa New Zealand. The analytic approach entailed hierarchical multiple regression, ANOVA, t-tests, and logistic regression. Step-one was partially supported, with discrimination and hopelessness independently associated with suicidal ideation, but not their interaction. Step-two was fully supported, showing social support associated with lower suicidal ideation when social support exceeded discrimination, compared with the inverse. Full support for step-three was observed, finding higher self-harm among participants with histories of attempted suicide than those who had never attempted. An adapted version of the 3ST for Queer and Takatāpui people is presented, offering novel approaches to testing the ideation-to-action framework with these communities.

Keywords: *Suicide, Suicidal Behaviour, Queer, Takatāpui, Discrimination, Three-Step Theory*

INTRODUCTION

Globally, major inequities in suicidality and suicide outcomes exist for Queer people (Skerrett et al., 2015; Haas et al., 2010; King et al., 2008). Historically used as a derogatory slur, *Queer* has since been reclaimed as a term that holds different meanings for people with diverse genders, sexualities, and sex characteristics, including the active resistance of definition and categorisation. For the purposes of the current study, we claim Queer as a way of denoting people whose self-identifications fall under the umbrella of lesbian, gay, bisexual, transgender, Queer, intersex, or asexual (LGBTQIA+), and people who are non-heterosexual and non-cisgender (Schimanski & Treharne, 2019; Wilson, 2019). In Aotearoa New Zealand, *Takatāpui* (Kerekere, 2017) is an umbrella term denoting Māori whose identities intersect with diverse sexualities, genders, and sex characteristics (Hamley et al., 2021; Aspin & Hutchings, 2007). Both Queer and Takatāpui are used as the main descriptive terms for the communities of interest in the current study, with other identity abbreviations mentioned when describing specific groups included in past research.

Following global patterns of inequity, Queer and Takatāpui people in Aotearoa New Zealand are significantly more likely to have experienced suicidal ideation, self-harmed, or attempted suicide compared with cisgender-heterosexual counterparts (Tan et al., 2021; Treharne et al., 2020; Lucassen et al., 2015; Clark et al., 2014). The levels of suicidal thoughts and behaviours among Queer and Takatāpui people have remained consistently higher over the past two decades, as evidenced by longitudinal data from a birth cohort (Fergusson et al., 1999; Spittlehouse et al., 2020) and national survey data from secondary school students (Le Brun et al., 2004; Fenaughty et al., 2021). Despite extensive exploration into the overrepresentation of Queer and Takatāpui in suicidality outcomes, only a few studies in Aotearoa New Zealand have applied or developed theoretical approaches to explain suicidal thoughts and behaviours among these communities (e.g., Treharne et al., 2020; Schimanski & Treharne, 2019; Fenaughty & Harré, 2003).

Klonsky and May's (2015) three-step theory (3ST) of suicide offers three processes to explain the emergence of suicidal ideation and potential escalation to attempting suicide. Aligning with ideation-to-action frameworks (Klonsky et al., 2016), including Joiner's (2005) interpersonal theory of suicide, the 3ST positions suicidal ideation and suicide attempts as two distinctive, yet inherently related, phenomena underpinned by unique contributing factors. In step-one, the simultaneous presence of some aspect of pain (e.g., psychological, physical) as well as hopelessness results in the initial development of suicidal ideation (Klonsky & May, 2015). In step-two, when one's experience of pain exceeds their connectedness with a reason to live (e.g., occupation, purpose, role), suicidal ideation intensifies. And in step-three, acquired (habituation to pain and fear of dying), dispositional (biologically determined inhibition), and practical (access to, and knowledge of, lethal means) capacities for suicide produce the conditions in which strong suicidal ideation progresses to attempting suicide. Empirical evidence for the explanatory power of the 3ST comes from studies conducted with tertiary students

(Dhingra et al., 2019; Yang et al., 2019), adult psychiatric inpatients (Tsai et al., 2021), and general populations (Pachkowski et al., 2021; Klonsky & May, 2015). However, few studies have directly examined the applicability of the 3ST with samples of Queer people (e.g., Wolford-Clevenger et al., 2021).

Wolford-Clevenger et al. (2021) measured the psychological pain, hopelessness, social connectedness, and suicidal ideation of 38 trans people in the US using daily surveys over a 30-day period. Suicidal ideation was significantly associated with psychological pain, hopelessness, and their interaction term with suicidal ideation being more likely when psychological pain was high and hopelessness was average or high, thus providing support for step-one of the 3ST. In addition, suicidal ideation was significantly associated with the difference score of social connectedness subtracted from psychological pain, providing support for step-two of the 3ST. Though step-three of the 3ST was not tested, Wolford-Clevenger et al.'s results provide preliminary support that steps one and two are able to explain suicidal ideation among trans people. To further test the applicability of mainstream explanatory theories of suicide to Queer and Takatāpui people, consideration should be given to operationalising these theories according to factors that best represent pain, hopelessness, connectedness, and acquired capacity.

There is an inextricable link between how colonialism has marginalised Māori and Queer/Takatāpui people in Aotearoa New Zealand (Kerekere, 2016). The British legal system was enforced following the signing of te Tiriti o Waitangi and the Treaty of Waitangi in 1840, including legislation criminalising intercourse between men (Rishworth, 2007). While never illegal, women who engaged in same-sex relations were privy to psychiatric institutionalisation and societal discrimination (Laurie, 2024). For trans people, colonisation imposed a Eurocentric gender binary ideology, leading to erasure of traditional understandings of gender diversity (Tan et al., 2019a; Kerekere, 2017). Occurring in parallel, Māori were subjected to national atrocities, including government attempts to decimate their language (e.g., Native Schools Act 1867) and cultural traditions (e.g., Tohunga Suppression Act 1907), and confiscate their whenua. During the 1970s' Queer liberation groups, including the National Gay Rights Coalition, were formed throughout Aotearoa New Zealand; in part, fronted by Dr Ngahuia Te Awekotuku after being denied entrance into the USA in 1972 on the grounds of her sexual orientation (Te Awekotuku, 1991). In 1988, the first Takatāpui service, Te Roopu Tautoko Trust was established, and subsequently in 1991, hosted the first International Indigenous HIV Conference (Kerekere, 2016).

Despite social and legislative progress in Aotearoa New Zealand, Queer and Takatāpui people continue to face social discrimination, including prejudicial treatment (e.g., physical and verbal violence) and marginalisation (Treharne & Adams, 2017). The link between social discrimination and suicidality has been well established. A meta-analysis by Williams et al. (2021) showed that Queer youth with histories of suicidality were 3.74 times more likely to have experienced social discrimination compared with cisgender-heterosexual peers. Greater suicidal ideation and suicide attempts have been associated with both interpersonal (e.g., rejection, violence) and institutional (e.g., inequitable policies and laws) forms of social discrimination among Queer people (Gosling et al., 2022; McNeil et al., 2017; Haas et al., 2010). Further, Wolford-Clevenger et al. (2018) found that higher social discrimination was consistently, and strongly, related to higher suicidal ideation for trans people, proposing that social discrimination may function as an elicitor of psychological pain that in turn drives suicidal ideation.

For step-two of the 3ST, Klonsky et al. (2021) noted that social support is a suitable measure of connectedness. Social support from significant others has been found to ameliorate the negative impact of social discrimination on suicidal ideation among trans people (Trujillo et al., 2017). Studies conducted with transgender adults (Carter et al., 2019) and LGBT youth (Liu & Mustanski, 2012) have demonstrated negative associations between social support and suicidal ideation, but such associations were nonsignificant between social support and self-harm. Thus, research with Queer people supports the ideation-to-action framework by highlighting suicidal ideation and self-harm as distinct phenomena, whereby social support may buffer against the former but not the latter.

The 3ST concept of acquired capacity for suicide is shared with the interpersonal theory of suicide (Van Orden et al., 2010; Joiner, 2005), which has been tested with Queer people (Chang et al., 2022; Grossman et al., 2016). A common measure of acquired capacity for suicide is non-suicidal self-injury (NSSI; Klonsky et al., 2021), evidenced as a potential mechanism facilitating suicidal ideation to attempting suicide (Griep & MacKinnon, 2022; Kiekens et al., 2018; May & Victor, 2018). The prevalence of NSSI (24.68-46.65%) and odds of its presence (*OR* = 1.91-4.37) are greater among people with marginalised sexualities and genders, compared with cisgender-heterosexual people (Marchi et al., 2022; Liu et al., 2019; Batejan et al., 2015).

In summary, research shows the potential utility of the 3ST for explaining suicidality among Queer and Takatāpui people. The current study aimed, first to expand upon specific evidence provided by Wolford-Clevenger et al. (2021) by testing all three processes in the 3ST; second to examine the applicability of the 3ST with both non-heterosexual and non-cisgender people; and third to use the findings to develop an adapted version of the 3ST that operationalises factors pertinent to understanding suicidal thoughts and behaviours among Queer and Takatāpui people. The hypotheses in this study are:

1) The interaction of social discrimination and hopelessness will be positively associated with suicidal ideation among Queer and Takatāpui people,
2) Social support will buffer against the escalation of suicidal ideation for Queer and Takatāpui people experiencing high discrimination and hopelessness when social support exceeds discrimination, and
3) NSSI will differentiate Queer and Takatāpui people who have attempted suicide from those who have experienced suicidal ideation but not attempted suicide.

METHOD

Participants

Demographic questions were presented at the beginning of the survey to ensure data were collected on

age, gender, gender modality, intersex status, sexual orientation, Indigeneity (i.e., whether the person identified as Māori or another Indigenous identity), and ethnic identity. With exception to age, these questions were presented to participants as both tick box options and open text boxes. Demographic information and descriptive statistics on the study variables are presented in Table 1. Participants were able to select multiple options for some demographic questions so categories may not add to 100%.

Participants were aged 18 to 74 years (n = 250, M = 27.4). The majority of participants were transgender/ gender diverse (n = 149, 59.6%) and identified with a non-heterosexual sexual orientation (n = 244, 97.6%). Most participants identified as New Zealand European/Pākehā (n = 211, 84.4%). In addition, 37 identified as Māori (14.8%), 10 as English/British (4.0%), 8 as Chinese (3.2%), and 5 as Pasifika (2.0%).

Materials

The larger survey measured recent and lifetime suicidal ideation, suicide attempts, and self-harm; psychological distress; social support; discrimination; resilience; flourishment; and gender minority stress and resilience. However, for the aims of the current study, we utilised the following measures from this larger survey:

Hopelessness: A single item from the Kessler 10 Psychological Distress Scale (K10; Kessler et al., 2002) was used as a measure of hopelessness ("In the past 4 weeks, about how often did you feel hopeless?"). This item was presented as a 5-point scale of frequency over the past 30 days (1 = "None of the time" to 5 = "All of the time"). The K10 has good face validity and psychometric properties when applied to the population of Aotearoa New Zealand (Oakley Browne et al., 2010).

Social discrimination: The Everyday Discrimination Scale (EDS; Lewis et al., 2012; Williams et al., 1997) was used as a measure of social discrimination. The 10 items pose different prejudicial scenarios that participants responded to on a 4-point frequency scale, denoting the frequency of these scenarios experienced (1 = "Never" to 4 = "Often"). The total discrimination score is the sum of all items, ranging from 10 to 40, with higher scores denoting greater discrimination. The EDS has good internal reliability, criterion validity (Clark et al., 2004), convergent and divergent validity (Taylor et al., 2004), and has been used previously to assess discrimination among Queer people (Gordon & Meyer, 2007). In the current study, the internal consistency of the EDS was excellent (α = .90).

Social support: The 12-item Multi-Dimension Scale of Perceived Social Support (MSPSS; Zimet et al., 1988) was used as a measure of social support. Items are rated on a 7-point Likert-scale (1 = "Very strongly disagree" to 7 = "Very strongly agree") and grouped into 3 subscales to denote the source of support: family, friends, and significant others. A mean subscale score or total score ranging from 1 to 2.9 indicates low perceived support, 3 to 5 indicates moderate perceived support, and 5.1 to 7 indicates high perceived support. The MSPSS has demonstrated good internal and test-retest reliability (Zimet et al., 1988; Clara et al., 2003), and has been applied to participants with diverse sexualities and gender identities (Jang et al., 2021; Davey et al., 2014). In the current study, the internal consistency of the MSPSS total score was excellent (α = .91).

Suicidal ideation: The 5-item Suicidal Ideation Attributes Scale (SIDAS; Van Spijker et al., 2014) was used as a measure of participants' recent suicidal ideation. Items were presented as an 11-point Likert-scale rated from 0 to 10, and the total suicidal ideation score is the sum of all items, ranging from 0 to 50, with scores ranging from 1 to 20 denoting low suicidal ideation and the clinical cut-off of ≥ 21 denoting a significantly higher likelihood of attempting suicide (Van Spijker et al., 2014). The SIDAS has shown good internal reliability and convergent validity (Van Spijker et al., 2014), and has been used in research with Queer women (Pachankis et al., 2020). In the current study, the internal consistency of the SIDAS was excellent (α = .93).

Recent and lifetime suicidality: Four questions from previous research were used to assess recent and lifetime suicidal thoughts and attempts (May & Klonsky, 2011; McNeil et al., 2012). Suicidal thoughts were measured using two questions with categorical responses: "Have you ever thought about ending your life?" (1 = "Yes" or 0 = "No"), and "How often have you thought about attempting suicide in the last year?" (0 = "Never", 1 = "Once or twice", 2 = "Monthly", 3 = "Weekly", or 4 = "Daily"). Suicide attempts were measured using two questions requiring numerical responses: "How many times have you attempted suicide in the last year?" and "How many times have you attempted suicide in total over your lifetime?".

Self-harm: The 17-item Deliberate Self-Harm Inventory (DSHI; Gratz, 2001) was used as a measure of NSSI. Each of the 17 items required participants to respond with either 1= "Yes" or 0 = "No" to specific self-harm behaviours within their lifetime (e.g., cutting, burning, scratching). Participants who responded "Yes" to an item were presented with additional questions, which captured the timeframe and frequency of the particular self-harm behaviour, and whether medical intervention was required. Two dichotomous variables were created regarding whether or not participants had ever self-harmed within their lifetimes and whether or not they had self-harmed within the last year. Further, a cumulative variable for the different types of self-harm behaviours undertaken was created by summing responses across the 17 items. The DSHI has high test-retest and internal reliability, and adequate construct, convergent and discriminant validity (Fliege et al., 2006; Gratz, 2001). In the current study, the internal consistency of the DSHI was adequate (α = .75).

Procedure

Ethics approval for the current study was granted by the Massey University Human Ethics Northern Committee (NOR 18/68) and the Flinders University Social and Behavioural Ethics Committee (7430). This study involved a cross-sectional design using a confidential online survey. The dataset used in the current research was collected as part of a larger study examining correlates of suicidality among transgender and cisgender people in Aotearoa New Zealand and Australia (see Treharne et al., 2020). Data were collected in 2017 using a survey hosted by Qualtrics that was distributed using Facebook advertisements, Queer community and

professional organisations, social media platforms, and snowball sampling (see Sadler et al., 2010). People aged 18-years or older were able to participate and gender quotas were embedded into the survey to ensure an equal distribution of cisgender and transgender samples. For the purposes of the current research, participants living in Australia (*n* = 372), and those who self-identified as both cisgender and heterosexual (*n* = 77), were excluded from analyses in order to contextualise the results within the experiences of Queer and Takatāpui people living in Aotearoa New Zealand. Data cleaning procedures consisted of missing data analyses and Little's Missing Completely at Random (MCAR) Test (Little, 1988), which demonstrated that 99.89% of all data points were

Table 1. Sample demographic information and descriptive statistics (*n* = 250)

Sociodemographic variable	*n*	%
Gender		
Agender	15	6.0
Female	101	40.4
Male	59	23.6
Non-binary	75	30.0
Gender modality		
Transgender/non-binary	149	59.6
Cisgender	101	40.4
Intersex status		
Endosex (i.e., someone with no intersex variation)	216	86.4
Intersex	4	1.6
Unsure	30	12.0
Sexual orientation		
Asexual	13	5.2
Bisexual	48	19.3
Gay	31	12.4
Lesbian	28	11.2
Pansexual	40	16.0
Queer	54	21.6
Questioning/unsure	12	4.8
Straight/heterosexual	6	2.4
Undefined	17	6.8
Indigeneity		
Indigenous	41	16.4
Not Indigenous	209	83.6
Ethnicity		
Asian	9	3.6
Māori	37	14.8
New Zealand European/Pākehā	211	84.4
Pasifika	5	2.0
Another ethnicity not listed above	50	20.0

Study variable	*n*	%
Recent suicidal ideation (SIDAS)	189	75.6
Lifetime suicidal ideation (direct question)	227	90.8
Recent attempted suicide (direct question)	38	15.2
Lifetime attempted suicide (direct question)	123	49.2
Recent self-harm (DSHI)	121	48.4
Lifetime self-harm (DSHI)	203	81.2
	***M* (*SD*)**	
Hopelessness (K10 item, range: 1-5)	2.82 (1.25)	
Social discrimination (EDS, range: 10-40)	23.68 (6.98)	
Social support (MSPSS, range: 1-7)	4.77 (1.24)	
Recent suicidal ideation (SIDAS, range: 0-50)	14.28 (14.19)	
Self-harm behaviours (DSHI, range: 0-17)	3.29 (2.74)	

Table 2. Block 2 of the hierarchical multiple regression testing step-one of the 3ST predicting suicidal ideation (n = 250)

Variable	*b*	*SE*	*β*	*t*	*p*
Hopelessness	8.95	.68	.63	13.14	< .001
Social discrimination	2.19	.69	.15	3.16	.002
Interaction term	.15	.64	.01	.23	.82

Notes. Independent variables: hopelessness (K10 item) and social discrimination (EDS) were entered in block 1; hopelessness, social discrimination and the interaction term were entered in block 2. Dependent variable: suicidal ideation (SIDAS).

present and missingness was likely attributable to MCAR (χ^2 = 95.99, df = 111, p = .84). As such, the expectation-maximisation algorithm was selected as the missing data imputation method (Kang, 2013; Schlomer et al., 2010). The final sample consisted of 250 self-identified Queer and Takatāpui participants living in Aotearoa New Zealand.

Analytic approach

Data were analysed using IBM SPSS Statistics, version 28.0.1.1. To examine our three hypotheses, we followed the analytic procedures outlined previously (see Yang et al., 2019; Klonsky & May, 2015).

For the first hypothesis about step-one of the 3ST, hopelessness, and social discrimination were centralised into z-scores and multiplied to form a two-way interaction term. A hierarchical multiple regression was conducted to analyse the main effects of hopelessness and discrimination on suicidal ideation, as well as the interaction effect. Next, median splits were performed on social discrimination and hopelessness scores to allocate participants into 3 subgroups: 1) high in both (n = 91, high-high), 2) high in either and low in the other (n = 103, high-low), and 3) low in both (n = 56, low-low). A one-way analysis of variance (ANOVA) was conducted to assess whether there were significant differences in the mean suicidal ideation scores between these 3 subgroups.

For the second hypothesis about step-two of the 3ST, participants who had not experienced suicidal ideation during their lifetimes (n = 23) were removed from the subsequent analyses (Klonsky et al., 2021), resulting in a sample of 227 (90.8%). Social support was centred into a z-score and subtracted from the social discrimination z-score to create a difference score. Next, a series of independent t-tests were conducted between the high-high subgroup (n = 88) and all other participants (n = 139). Specifically, the difference in mean suicidal ideation was compared between participants who scored higher on social discrimination and those who scored higher on social support for each subgroup.

For the third hypothesis about step-three of the 3ST, the number of different ways that participants had self-harmed within their lifetime (see Table 1 'self-harm behaviours') was used as a measure of acquired capacity. Participants were categorised into 2 subgroups: 1) those with histories of suicidal ideation but had not attempted suicide (n = 104, SI/-), and 2) those with histories of suicidal ideation and attempted suicide (n = 123, SI/SA). An independent t-test was performed to compare self-harm behaviours between these two subgroups, with an expectation that the number of different self-harm methods would be higher for the SI/SA subgroup than the SI/- subgroup. Next, a binary logistic regression was conducted to determine whether self-harm behaviours more strongly and accurately predicted participants subgroup membership than suicidal ideation.

RESULTS

Hypothesis One

To test step-one of the 3ST, the hierarchical multiple regression was a two-block entry method design, with hopelessness and social discrimination first entered in to the model, followed by the interaction term of these two variables. The final regression equation was significant, $F(3,246) = 75.04$, $R^2 = .48$, $p < .001$, with hopelessness, $b = 8.95$, $t = 13.14$, $p < .001$, and social discrimination, $b = 2.19$, $t = 3.16$, $p = .002$, independently associated with suicidal ideation. Results indicated that the interaction term, $b = .15$, $t = .01$, $p = .815$, did not explain variance over and beyond the main effects of social discrimination and hopelessness in block 2 (see Table 2).

Median splits on the social discrimination and hopelessness scores resulted in 91 (36.4%) participants allocated to the high-high subgroup, 103 (41.2%) to the high-low subgroup, and 56 (22.4%) to the low-low subgroup. The cut-off score indicative of severe suicidal ideation (i.e., ≥ 21) was met by 56 participants in the high-high subgroup (61.5% of subgroup), 23 in the high-low subgroup (22.3% of subgroup), and 4 in the low-low subgroup (7.1% of subgroup). A one-way ANOVA indicated that there were significant differences in suicidal ideation overall, $F(2,247) = 51.85$, $p < .001$, with a large effect size observed ($\eta^2 = .30$). These results maintained consistency across the Welch ($p < .001$) and the Brown-Forsythe ($p < .001$) robustness tests. Since the Levene's test for quality of variances was significant ($p < .001$), the Games-Howell post-hoc test was used to compare suicidal ideation between each combination of the 3 subgroups. The means for suicidal ideation across the three subgroups are displayed in Table 3. Suicidal ideation was significantly greater for participants in the high-high subgroup compared with the high-low (*difference in means* = 11.59, $p < .001$) and low-low (*difference in means* = 19.99, $p < .001$) subgroups. Further, suicidal ideation was significantly greater for participants in the high-low subgroup compared with the low-low subgroup (*difference in means* = 8.41, $p < .001$). Table 3 also includes ANOVA comparisons and the means for hopelessness and social discrimination across the three subgroups as additional information, which demonstrate

Table 3. ANOVAs of suicidal ideation, hopelessness, and social discrimination as additional testing of step-one of the 3ST (n = 250)

Variable	Total	Low-Low	High-Low	High-High	ANOVA
	M (SD)	*M (SD)*	*M (SD)*	*M (SD)*	*F*(2,247) =
Suicidal ideation (SIDAS)	14.28 (14.19)	3.54 (6.73)	11.94 (12.22)	23.53 (13.96)	51.85*
Hopelessness (K10 item)	2.82 (1.25)	1.48 (0.50)	2.66 (1.11)	3.81 (0.80)	120.81*
Social discrimination (EDS)	23.68 (6.98)	17.86 (3.28)	21.92 (6.51)	29.26 (4.91)	88.16*

Notes. Low-Low refers to participants with low hopelessness and low social discrimination (n = 56), High-Low refers to participants with low hopelessness or social discrimination (n = 103), and High-High refers to participants with high hopelessness and high social discrimination (n = 91). * = p < .001.

that hopelessness and social discrimination were also lowest for the low-low group and highest for the high-high groups.

Hypothesis Two

To test step-two of the 3ST, two independent t-tests were performed between the high-high subgroup (n = 88) and all other participants (n = 139), examining whether suicidal ideation differed between those higher on social discrimination compared with those higher on social support (Klonsky & May, 2015). As displayed in Table 4, suicidal ideation was significantly smaller for the participants in the high-high subgroup whose social support exceeded social discrimination (M = 16.14, SD = 13.48) compared with those who experienced higher social discrimination than social support (M = 26.95, SD = 12.62), $t(86) = 3.42$, $p < .001$, $d = .84$. Among all other participants, suicidal ideation did not significantly differ between participants higher on social discrimination (M = 9.75, SD = 11.41) compared with those higher on social support (M = 11.24, SD = 12.01), $t(137) = .48$, $p = .471$, $d = .13$.

An additional test of step-two of the 3ST showed that the difference score between social discrimination and social support was positively associated with suicidal ideation among the high-high subgroup, n = 88, $r = .233$, $p = .029$. However, for all other participants not in this subgroup, this difference score was not significantly associated with suicidal ideation, n = 139, $r = .158$, $p = .064$.

Hypothesis Three

When testing step-three of the 3ST, an independent t-test showed a significant difference in self-harm behaviours between the SI/- subgroup (n = 104, M = 2.42, SD = 2.29) and the SI/SA subgroup (n = 123, M = 4.50, SD = 2.70), with a mean difference of -2.08 indicating that the number of different self-harm methods was significantly higher for participants in the SI/SA subgroup, $t(225) = -6.20$, $p < .001$, $d = -.83$. A binary logistic model was constructed predicting lifetime suicidality status (SI/- or SI/SA subgroup membership) with self-harm behaviours and suicidal ideation entered into the equation simultaneously. The full model was significant, $\chi^2(2) = 53.29$, $R^2 = .28$, $p < .001$, showing the odds of having attempted suicide increased by 1.29 for a unit increase in self-harm behaviours when controlling for suicidal ideation, which was larger than suicidal ideation predicting attempted suicide when controlling for self-harm behaviours (OR = 1.05). Further, a classification table comparing the predictive accuracies of each variable was constructed (see Table 5). Results demonstrated that self-harm behaviours alone accurately classified 74.8% of participants belonging to the SI/SA subgroup, which was larger than when only suicidal ideation was included (65.0%) and when both variables were included (73.2%).

Table 4. Independent t-tests comparing suicidal ideation between subgroups for step-two of the 3ST (n = 227)

	Higher Discrimination			Higher Social Support					
	n	*M*(*SD*)	*SE*	*n*	*M*(*SD*)	*SE*	*df*	*t*	Cohen's *d*
High-High Subgroup	66	26.95(12.62)	1.55	22	16.14(13.49)	2.88	86	3.42*	.84[a]
All Other Participants	46	11.24(12.01)	1.77	93	9.75(11.41)	1.18	137	.48	.13[a]

Notes. Dependent variable: suicidal ideation, * p < .001 (2-tail), [a] Levene's test for equality of variances was non-significant.

Table 5. Classification accuracies of each variable predicting lifetimes suicidality status (n = 227)

	SI	SHB	SI and SHB	Null model
SI/-	68.3%	57.7%	71.2%	–
SI/SA	65.0%	74.8%	73.2%	–
Overall	66.5%	67.0%	72.2%	54.2%

Notes. SI = suicidal ideation, SHB = self-harm behaviours, SA = suicide attempt.

DISCUSSION

Few international studies have focused on explaining the correlates of suicidal thoughts and behaviours among Queer people, and this study provides new evidence by testing theory-driven hypotheses among Queer and Takatāpui people in Aotearoa New Zealand. The study aimed to expand upon the explanatory theory implemented in Wolford-Clevenger et al. (2021) by testing adapted versions of the 3 processes outlined in the 3ST (Klonsky & May, 2015) with a suitably sized sample of Queer and Takatāpui people. Overall, our findings demonstrate how suicidality is associated with hopelessness, social discrimination, social support as a form of connectedness, and self-harm as a form of acquired capacity with partial or full support for all three steps of the 3ST.

Our findings partially supported the applicability of step-one of the 3ST, demonstrating that hopelessness and social discrimination were independently associated with suicidal ideation. The interaction term of these two variables was not associated with suicidal ideation, suggesting that the simultaneous occurrence of both does not seem to create a multiplicative effect on suicidal ideation. An explanation is that social discrimination and hopelessness may represent separate pathways to developing suicidal thoughts, whereby other mechanisms may facilitate their associations with suicidal ideation, such as psychological pain (Wolford-Clevenger et al., 2021; Peterson et al., 2021) or depressive symptoms (Hirsch et al., 2017; Mustanski & Liu, 2013; Langhinrichsen-Rohling et al., 2011). Consistent with Klonsky & May's (2015) original examination of step-one, suicidal ideation was greater among participants higher in social discrimination and hopelessness compared to those lower in either of these variables.

Full support for step-two of the 3ST was found. Among participants experiencing higher hopelessness and social discrimination (high-high subgroup), suicidal ideation was found to be lower when social support exceeded social discrimination, compared with participants whose social discrimination exceeded social support. However, these findings were not evident among all other participants (i.e., those with lower hopelessness and/or social discrimination). Consistent with past research, the difference between social discrimination and social support was positively associated with suicidal ideation for participants experiencing higher social discrimination and hopelessness (Wolford-Clevenger et al., 2021; Yang et al., 2019; Klonsky & May, 2015).

The current results also supported step-three of the 3ST, showing that acquired capacity in the form of self-harm behaviours were higher among participants with histories of suicidal ideation and attempts (SI/SA subgroup) compared with prior suicidal ideation but had not attempted to take their own lives (SI/- subgroup; Marchi et al., 2022; Liu et al., 2019; Batejan et al., 2015). Further, self-harm behaviours alone were found to be a more accurate determinant of participants membership to the SI/SA subgroup compared with suicidal ideation alone and the inclusion of both of these variables. These findings are consistent with past research suggesting that NSSI may contribute to subsequent suicide attempts (Reisner et al., 2014), which may be explained through a lowered sense of pain and heightened pain threshold (Law et al., 2017; Ammerman et al., 2016).

It is important to contextualise the results of the current study within the broader society of Aotearoa New Zealand. Though two decades old, data from *Te Rau Hinengaro: The New Zealand Mental Health Survey* provided insights into the prevalence of suicidal thoughts and behaviours among the general population. Of the 12,992 participants, 15.7% and 4.5% had experienced suicidal ideation and attempted suicide – respectively – within their lifetimes (Beautrais et al., 2006). Among the current sample, the lifetime prevalence of suicidal ideation was 90.8% and 49.2% for attempted suicide. Though suggesting higher prevalences among Queer and Takatāpui people compared with the general population, it is important to position comparisons against the temporal, sample size, and sampling method differences between the current study and national survey data.

Strengths

As emphasised by Klonsky et al. (2021), the 3ST of suicide outlines conditions that may foster suicidal ideation and suicide attempts which are *explanatory* of suicidality, not *predictive*. Theories of suicide provide structure to the processes of suicidality, and in the case of the 3ST, offer broad frameworks for applying these processes. For example, the construct of pain is not bound to any single form, but can be applied to phenomena that one experiences as painful, including physical, emotional, psychological, and social (Klonsky & May, 2015). Here, we used social discrimination as an operationalisation of the social pain experienced by Queer and Takatāpui people in Aotearoa New Zealand (Schimanski & Treharne, 2019; Treharne & Adams, 2017). Further, a study found that higher connectedness with Queer communities strengthened the moderated pathways from discrimination to internalised homophobia to suicidal ideation, rather than lower (Rogers et al., 2021). Our findings suggest that a protective mechanism for Queer and Takatāpui people can be social support that social

connections provide (a specific component of connectedness), rather than connectedness broadly, as found in past research (Treharne et al., 2020; Liu & Mustanski, 2012).

The current study develops research on suicidality in several ways. First, we demonstrated the applicability of an ideation-to-action framework, Klonsky and May's (2015) 3ST, for explaining suicidality among Queer and Takatāpui people. With exception to Wolford-Clevenger et al., 2021, past studies have chiefly utilised the interpersonal theory of suicide (Chang et al., 2023; Grossman et al., 2016) alone or in combination with minority stress theories (Chang et al., 2022; Fulginiti et al., 2020). Second, we present a novel operationalisation of the 3ST, conceptualising pain as social discrimination, connectedness as social support, and acquired capacity as self-harm. While each of these factors have individually been associated with suicidality among Queer people (e.g., Peterson et al., 2021; Treharne et al., 2020; Trujillo et al., 2017), this study represents the first operationalisation of these factors within an ideation-to-action framework. Third, we aimed to expand upon the study by Wolford-Clevenger et al. (2021) by 1) utilising a larger sample size (n = 250) of Queer people, and 2) testing all three processes of the 3ST.

The current findings pose a strong argument for researchers to apply theories of suicide by operationalising the constructs in ways that best explain suicidality among specific communities of interest. In clinical practice, the 3ST represents an expression of the processes underpinning suicidality development that ebb and flow with time (Klonsky et al., 2021), rather than representing a discrete condition (Fortuner & Hetrick, 2022). Social discrimination, hopelessness, social support, and self-harm are not framed as predictive risk factors, but rather dynamic processes that influence the social conditions in which suicidality may arise from (Klonsky et al., 2021). These are important to explore during clinical suicide risk assessments as part of gaining an empathetic and wholistic understanding of clients' experiences (Sommers-Flanagan & Shaw, 2017).

Limitations and Future Directions

The current study is not without shortcomings. While we applied clear and multi-item measures of suicidal ideation (SIDAS) and self-harm (DSHI), a single item of *feeling hopeless* from the K10 was used as a proxy measure of hopelessness. The construct of hopelessness extends beyond feeling hopeless, constituting cognitive and motivational components, such as pessimistic beliefs about one's future (Beck et al., 1974). As such, this item did not account for the full dimensionality of hopelessness. A further limitation was the temporal differences between measures, ranging from lifetime prevalence (e.g., suicide attempts) to the past month (e.g., hopeless). While participants who had experienced social discrimination, social support, suicidal ideation, attempted suicide, and self-harm could be identified, we were unable to determine whether these experiences occurred simultaneously, unlike ecological momentary designs (e.g., Wolford-Clevenger et al., 2021).

For future research on the 3ST, we recommend the use, or development, of measures with normative cut-offs for specific demographic groups (e.g., Queer and Takatāpui) rather than reliance upon median-splits. A priori definition of 'high' for pain and hopelessness poses a limitation to the generalisability of results as 'high' is internally determined within a given sample and not determined by clinical or normative cut-offs. Additionally, it is important that this research examine the psychometric properties (e.g., validation) of measures when applied to Indigenous populations.

Finally, we encourage future research to incorporate other ways in which the 3ST could be further adapted and applied. The current study intentionally presents an aggregated sample of Queer (non-Māori) and Takatāpui (Māori) with an adequate amount of participants overall but a limited number of Māori participants (n = 37). More intersectionality-based research is needed to examine the differing mechanisms that may uniquely explain suicidality between these two ethnic groups. This is of particular importance given the limited research looking into how suicidality develops among Takatāpui people (e.g., Pihama et al., 2020; Chiang et al., 2017; Lawson-Te Aho, 2016). A suggestion is to conceptualise Māori cultural embeddedness (values, beliefs, and practices) as a form connectedness to cultural identity among Māori (Fox et al., 2023; Fox et al., 2022) in step-two of the 3ST. Additionally, drawing on understandings of stress among gender diverse communities, the construct of pain in step-one could be conceptualised as distal (cisnormativity, non-affirmation, non-disclosure of identity), and/or proximal (negative expectations, internalised transphobia) stressors (Tan et al., 2019b).

Conclusions

The current study tested the 3ST (Klonsky & May, 2015) of suicide, which was operationalised for Queer and Takatāpui people, expanding upon preliminary findings (e.g., Wolford-Clevenger et al., 2021). Results showed partial support for step-one and full support for step-two and step-three. Specifically, social discrimination and hopelessness independently predicted suicidal ideation, and among those higher in these two variables, social support buffered against suicidal ideation when it exceeded social discrimination. Further, self-harm behaviours were found to be greater among participants who had previously attempted suicide than those who had not, and more accurately categorised participants, accordingly. As a promising theoretical framework for explaining suicidality among Queer and Takatāpui people, more research is required for greater insights into the applicability of the 3ST.

References

Ammerman, B. A., Burke, T. A., Alloy, L. B., & McCloskey, M. S. (2016). Subjective pain during NSSI as an active agent in suicide risk. *Psychiatry Research*, *236*, 80–85. https://doi.org/10.1016/j.psychres.2015.12.028

Aspin, C., & Hutchings, J. (2007). Reclaiming the past to inform the future: Contemporary views of Maori sexuality. *Culture, Health & Sexuality*, *9*(4), 415–427. https://doi.org/10.1080/13691050701195119

Batejan, K. L., Jarvi, S. M., & Swenson, L. P. (2015). Sexual orientation and non-suicidal self-injury: A meta-analytic review. *Archives of Suicide Research*, *19*(2), 131–150. https://doi.org/10.1080/13811118.2014.957450

Beautrais, A. L., Elisabeth Wells, J., McGee, M. A., Oakley Browne, M. A., & New Zealand Mental Health Survey Research Team. (2006). Suicidal behaviour in Te Rau

Hinengaro: the New Zealand mental health survey. *Australian & New Zealand Journal of Psychiatry*, *40*(10), 896-904. https://doi. org/10.1080/j.1440-1614.2006.01909.x

Beck, A. T., Weissman, A., Lester, D., & Trexler, L. (1974). The measurement of pessimism: The hopelessness scale. *Journal of Consulting and Clinical Psychology*, *42*(6), 861– 865. https://doi.org/10.1037/h0037562

Carter, S. P., Allred, K. M., Tucker, R. P., Simpson, T. L., Shipherd, J. C., & Lehavot, K. (2019). Discrimination and suicidal ideation among transgender veterans: The role of social support and connection. *LGBT health*, *6*(2), 43-50. https://doi.org/10.1089/lgbt.2018.0239

Chang, C. J., Dorrell, K. D., Feinstein, B. A., Depp, C. A., Ehret, B. C., & Selby, E. A. (2023). Testing the interpersonal theory of suicide in a sample of sexual minority young adults: Attention to within-group differences. *Suicide and Life-Threatening Behavior*, *53*, 415-425. https://doi.org/10.1111/sltb.12952

Chang, C. J., Feinstein, B. A., Chu, B. C., & Selby, E. A. (2022). Application of minority stress and the interpersonal theory of suicide in bisexual+ versus gay/lesbian young adults. *Suicide and Life-Threatening Behavior*, *52*(4), 725–739. https://doi.org/10.1111/sltb.12856

Chiang, S.-Y., Fleming, T., Lucassen, M., Fenaughty, J., Clark, T., & Denny, S. (2017). Mental health status of double minority adolescents: Findings from national cross- sectional health surveys. *Journal of Immigrant and Minority Health*, *19*(3), 499–510. https://doi.org/10.1007/s10903-016-0530-z

Clara, I. P., Cox, B. J., Enns, M. W., Murray, L. T., & Torgrudc, L. J. (2003). Confirmatory

factor analysis of the multidimensional scale of perceived social support in clinically distressed and student samples. *Journal of Personality Assessment*, *81*(3), 265–270. https://doi.org/10.1207/s15327752jpa8103_09

Clark, R., Coleman, A. P., & Novak, J. D. (2004). Brief report: Initial psychometric properties of the everyday discrimination scale in black adolescents. *Journal of Adolescence*, *27*(3), 363–368. https://doi.org/10.1016/j.adolescence.2003.09.004

Clark, T. C., Lucassen, M. F. G., 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. https://doi.org/10.1016/j.jadohealth.2013.11.008

Davey, A., Bouman, W. P., Arcelus, J., & Meyer, C. (2014). Social Support and psychological well-being in gender dysphoria: A comparison of patients with matched controls. *The Journal of Sexual Medicine*, *11*(12), 2976–2985. https://doi.org/10.1111/jsm.12681

Dhingra, K., Klonsky, E. D., & Tapola, V. (2019). An empirical test of the three-step theory of suicide in U.K. university students. *Suicide and Life-Threatening Behavior*, *49*(2), 478–487. https://doi.org/10.1111/sltb.12437

Fenaughty, J., & Harré, N. (2003). Life on the seesaw: A qualitative study of suicide resiliency factors for young gay men. *Journal of Homosexuality*, *45*(1), 1–22. https://doi.org/10.1300/j082v45n01_01

Fenaughty, J., Clark, T., Choo, W. L., Lucassen, M., Greaves, L., Sutcliffe, K., Ball, J., Ker, A., & Fleming, T. (2021). *Te āniwaniwa takatāpui whānui: Te aronga taera mō ngā rangatahi | Sexual attraction and young people's wellbeing in Youth19.* Youth19 Research Group, The University of Auckland and Victoria University of Wellington.

Fergusson, D. M., Horwood, L. J., & Beautrais, A. L. (1999). Is sexual orientation related to mental health problems and suicidality in young people? *Archives of General Psychiatry*, *56*(10), 876–880. https://doi.org/10.1001/archpsyc.56.10.876

Fliege, H., Kocalevent, R.-D., Walter, O. B., Beck, S., Gratz, K. L., Gutierrez, P. M., & Klapp, B. F. (2006). Three assessment tools for deliberate self-harm and suicide behavior: Evaluation and psychopathological correlates. *Journal of Psychosomatic Research*, *61*(1), 113–121. https://doi.org/10.1016/j.jpsychores.2005.10.006

Fortune, S., & Hetrick, S. (2022). Suicide risk assessments: Why are we still relying on these a decade after the evidence showed they perform poorly? *Australian & New Zealand Journal of Psychiatry*, *56*(12), 1529–1534. https://doi.org/10.1177/00048674221107316

Fox, R., Johnson, F. N., Winter, T., & Jose, P. E. (2023). The Māori Cultural Embeddedness Scale (MaCES): Initial evidence of structural validity. *Cultural diversity & ethnic minority psychology*, *29*(4), 551–563. https://doi.org/10.1037/cdp0000590

Fox, R., Fraser, G., Neha, T., & Jose, P. E. (2022). Tuia I Roto: A qualitative exploration of Māori cultural embeddedness. *MAI Journal: A New Zealand Journal of Indigenous Scholarship*, *11*(2), 140–156. https://doi.org/10.20507/maijournal.2022.11.2.5

Fulginiti, A., Goldbach, J. T., Mamey, M. R., Rusow, J., Srivastava, A., Rhoades, H., Schrager, S. M., Bond, D. W., & Marshal, M. P. (2020). Integrating minority stress theory and the interpersonal theory of suicide among sexual minority youth who engage crisis services. *Suicide and Life-Threatening Behavior*, *50*(3), 601–616. https://doi.org/10.1111/sltb.12623

Gordon, A. R., & Meyer, I. H. (2007). Gender nonconformity as a target of prejudice, discrimination, and violence against LGB individuals. *Journal of LGBT Health Research*, *3*(3), 55–71. https://doi.org/10.1080/15574090802093562

Gosling, H., Pratt, D., Montgomery, H., & Lea, J. (2022). The relationship between minority stress factors and suicidal ideation and behaviours amongst transgender and gender non-conforming adults: A systematic review. *Journal of Affective Disorders*, *303*, 31– 51. https://doi.org/10.1016/j.jad.2021.12.091

Gratz, K. L. (2001). Deliberate self-harm inventory. *Journal of Psychopathology and Behavioral Assessment*, *23*(4), 253–263. https://doi.org/10.1037/t04163-000

Griep, S. K., & MacKinnon, D. F. (2022). Does nonsuicidal self-injury predict later suicidal attempts? A review of studies. *Archives of Suicide Research*, *26*(2), 428–446. https://doi.org/10.1080/13811118.2020.1822244

Grossman, A. H., Park, J. Y., & Russell, S. T. (2016). Transgender Youth and suicidal behaviors: Applying the interpersonal psychological theory of suicide. *Journal of Gay & Lesbian Mental Health*, *20*(4), 329–349. https://doi.org/10.1080/19359705.2016.1207581

Haas, A. P., Eliason, M., Mays, V. M., Mathy, R. M., Cochran, S. D., D'Augelli, A. R., Silverman, M. M., Fisher, P. W., Hughes, T., Rosario, M., Russell, S. T., Malley, E., Reed, J., Litts, D. A., Haller, E., Sell, R. L., Remafedi, G., Bradford, J., Beautrais, A. L., ... Clayton, P. J. (2010). Suicide and suicide risk in lesbian, gay, bisexual, and transgender populations: Review and recommendations. *Journal of Homosexuality*, *58*(1), 10–51. https://doi.org/10.1080/00918369.2011.534038

Hamley, L., Groot, S., Le Grice, J., Gillon, A., Greaves, L., Manchi, M., & Clark, T. (2021). "You're the one that was on Uncle's wall!": Identity, Whanaungatanga and connection for takatāpui (LGBTQ+ Māori). *Genealogy*, *5*(2), 54. https://doi.org/10.3390/genealogy5020054

Hirsch, J. K., Cohn, T. J., Rowe, C. A., & Rimmer, S. E. (2017). Minority sexual orientation, gender identity status and suicidal behavior: Serial indirect effects of hope, hopelessness and depressive symptoms. *International Journal of Mental Health and Addiction*, *15*(2), 260–270. https://doi.org/10.1007/s11469-016-9723-x

Jang, H., Clark, M., & Walker, T. L. (2021). Positive identity and career decision-making self-efficacy: Implications for pansexual, asexual, demisexual, and Queer College Students. *Journal of LGBTQ Issues in Counseling*, *15*(4), 356–371. https://doi.org/10.1080/15538605.2021.1938335

Joiner, T. (2005). *Why people die by suicide*. Harvard University Press.

Kang, H. (2013). The prevention and handling of the missing data. *Korean Journal of Anesthesiology*, *64*(5), 402–406. https://doi.org/10.4097/kjae.2013.64.5.402

Kerekere, E. (2016). LGBT activism among Māori. *The Wiley Blackwell Encyclopaedia of Gender and Sexuality Studies*, 1-5. https://doi.org/10.1002/9781118663219.wbegss666

Kerekere, E. (2017). *Part of The Whānau: The Emergence of Takatāpui Identity – He Whāriki Takatāpui* [Doctoral thesis, Victoria University of Wellington]. Open Access Te Herenga Waka-Victoria University of Wellington. https://openaccess.wgtn.ac.nz/articles/thesis/Part_of_The_Wh_nau_The_Emergence_of_Takat_pui_Identity_-_He_Wh_riki_Takat_pui/17060225?file=31547636

Kessler, R. C., Andrews, G., Colpe, L. J., Hiripi, E., Mroczek, D. K., Normand, S.-L. T., Walters, E. E., & Zaslavsky, A. M. (2002). Short screening scales to monitor population prevalences and trends in non-specific psychological distress. *Psychological Medicine*, *32*(6), 959–976. https://doi.org/10.1017/s0033291702006074

Kiekens, G., Hasking, P., Boyes, M., Claes, L., Mortier, P., Auerbach, R. P., Cuijpers, P., Demyttenaere, K., Green, J. G., Kessler, R. C., Myin-Germeys, I., Nock, M. K., & Bruffaerts, R. (2018). The associations between non-suicidal self-injury and first onset suicidal thoughts and behaviors. *Journal of Affective Disorders*, *239*, 171–179. https://doi.org/10.1016/j.jad.2018.06.033

King, M., Semlyen, J., See Tai, S., Killaspy, H., Osborn, D., Popelyuk, D., & Nazareth, I. (2008). A systematic review of mental disorders, suicide, and deliberate self harm in lesbian, gay and bisexual people. *BMC Psychiatry*, *8*(70). https://doi.org/10.1186/1471-244X-8-70

Klonsky, E. D., & May, A. M. (2015). The three-step theory (3ST): A new theory of suicide rooted in the "ideation-to-action" framework. *International Journal of Cognitive Therapy*, *8*(2), 114–129. https://doi.org/10.1521/ijct.2015.8.2.114

Klonsky, E. D., May, A. M., & Saffer, B. Y. (2016). Suicide, suicide attempts, and suicidal ideation. *Annual Review of Clinical Psychology*, *12*(1), 307–330. https://doi.org/10.1146/annurev-clinpsy-021815-093204

Klonsky, E. D., Pachkowski, M. C., Shahnaz, A., & May, A. M. (2021). The three-step theory of suicide: Description, evidence, and some useful points of clarification. *Preventive Medicine*, *152*, 106549. https://doi.org/10.1016/j.ypmed.2021.106549

Langhinrichsen-Rohling, J., Lamis, D. A., & Malone, P. S. (2011). Sexual attraction status and adolescent suicide proneness: The roles of hopelessness, depression, and social support. *Journal of Homosexuality*, *58*(1), 52–82. https://doi.org/10.1080/00918369.2011.533628

Laurie, A. J. (2024). *Lesbian lives*. Te Ara – the Encyclopedia of New Zealand. https://teara.govt.nz/mi/lesbian-lives/print

Law, K. C., Khazem, L. R., Jin, H. M., & Anestis, M. D. (2017). Non-suicidal self-injury and frequency of suicide attempts: The role of Pain Persistence. *Journal of Affective Disorders*, *209*, 254–261. https://doi.org/10.1016/j.jad.2016.11.028

Lawson-Te Aho, K. R. (2016). The power of hope for Māori youth suicide prevention: Preliminary themes from the Aotearoa/New Zealand HOPE studies. *Journal of Indigenous Research*, *5*(2), Article 1. https://doi.org/10.26077/qgrs-ep52

Le Brun, C., Robinson, E., Warren, H., & Watson, P. D. (2004). *Non-heterosexual youth: A profile of their health and wellbeing: Data from Youth2000*. The University of Auckland.

Lewis, T. T., Yang, F. M., Jacobs, E. A., & Fitchett, G. (2012). Racial/ethnic differences in responses to the everyday discrimination scale: A differential item functioning analysis. *American Journal of Epidemiology*, *175*(5), 391–401. https://doi.org/10.1093/aje/kwr287

Little, R. J. (1988). A test of missing completely at random for multivariate data with missing values. *Journal of the American Statistical Association*, *83*(404), 1198–1202. https://doi.org/10.1080/01621459.1988.10478722

Liu, R. T., & Mustanski, B. (2012). Suicidal ideation and self-harm in lesbian, gay, bisexual, and transgender youth. *American Journal of Preventive Medicine*, *42*(3), 221–228. https://doi.org/10.1016/j.amepre.2011.10.023

Liu, R. T., Sheehan, A. E., Walsh, R. F. L., Sanzari, C. M., Cheek, S. M., & Hernandez, E. M. (2019). Prevalence and correlates of non-suicidal self-injury among lesbian, gay, bisexual, and transgender individuals: A systematic review and meta-analysis. *Clinical Psychology Review*, *74*, 101783. https://doi.org/10.1016/j.cpr.2019.101783

Lucassen, M. F. G., Clark, T. C., Denny, S. J., Fleming, T. M., Rossen, F. V., Sheridan, J., Bullen, P., & Robinson, E. M. (2015). What has changed from 2001 to 2012 for sexual minority youth in New Zealand? *Journal of Paediatrics and Child Health*, *51*(4), 410– 418. https://doi.org/10.1111/jpc.12727

Marchi, M., Arcolin, E., Fiore, G., Travascio, A., Uberti, D., Amaddeo, F., Converti, M., Fiorillo, A., Mirandola, M., Pinna, F., Ventriglio, A., Galeazzi, G. M., & Italian Working Group on LGBTIQ Mental Health. (2022). Self-harm and suicidality among LGBTIQ people: A systematic review and meta-analysis. *International Review of Psychiatry*, *34*(3-4), 240–256. https://doi.org/10.1080/09540261.2022.2053070

May, A., & Klonsky, E. D. (2011). Validity of suicidality items from the Youth Risk Behavior Survey in a high school sample. *Assessment*, *18*(3), 379–381. https://doi.org/10.1177/1073191110374285

May, A. M., & Victor, S. E. (2018). From ideation to action: Recent advances in understanding suicide capability. *Current Opinion in Psychology*, *22*, 1–6. https://doi.org/10.1016/j.copsyc.2017.07.007

McNeil, J., Ellis, S. J., & Eccles, F. J. (2017). Suicide in trans populations: A systematic review of prevalence and correlates. *Psychology of Sexual Orientation and Gender Diversity*, *4*(3), 341–353. https://doi.org/10.1037/sgd0000235

McNeil, J., Morton, J., Bailey, L., Ellis, S. J., & Regan, M. (2012). *Trans Mental Health and emotional wellbeing*

study 2012. University of Huddersfield Research Portal. Retrieved March 11, 2023, from https://pure.hud.ac.uk/en/publications/trans-mental-health-and- emotional-wellbeing-study-2012

Mustanski, B., & Liu, R. T. (2013). A longitudinal study of predictors of suicide attempts among lesbian, gay, bisexual, and transgender youth. *Archives of Sexual Behavior*, *42*(3), 437–448. https://doi.org/10.1007/s10508-012-0013-9

Oakley Browne, M. A., Wells, J. E., Scott, K. M., & McGee, M. A. (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. https://doi.org/10.3109/00048670903279820

Pachankis, J. E., McConocha, E. M., Clark, K. A., Wang, K., Behari, K., Fetzner, B. K., Brisbin, C. D., Scheer, J. R., & Lehavot, K. (2020). A transdiagnostic minority stress intervention for gender diverse sexual minority women's depression, anxiety, and unhealthy alcohol use: A randomized controlled trial. *Journal of Consulting and Clinical Psychology*, *88*(7), 613–630. https://doi.org/10.1037/ccp0000508

Pachkowski, M. C., Hewitt, P. L., & Klonsky, E. D. (2021). Examining suicidal desire
through the lens of the three-step theory: A cross-sectional and longitudinal investigation in a community sample. *Journal of Consulting and Clinical Psychology*, *89*(1), 1–10. https://doi.org/10.1037/ccp0000546

Peterson, A. L., Bender, A. M., Sullivan, B., & Karver, M. S. (2021). Ambient discrimination, victimization, and suicidality in a non-probability U.S. sample of LGBTQ adults. *Archives of Sexual Behavior*, *50*(3), 1003–1014. https://doi.org/10.1007/s10508-020-01888-4

Pihama, L., Green, A., Mika, C., Roskrudge, M., Simmonds, S., Nopera, T., Skipper, H., & Laurence, R. (2020). *Honour Project Aotearoa*. Te Kotahi Research Institute.

Reisner, S. L., Biello, K., Perry, N. S., Gamarel, K. E., & Mimiaga, M. J. (2014). A compensatory model of risk and resilience applied to adolescent sexual orientation disparities in nonsuicidal self-injury and suicide attempts. *American Journal of Orthopsychiatry*, *84*(5), 545–556. https://doi.org/10.1037/ort0000008

Rishworth, P. (2007). Changing times, changing minds, changing laws – sexual orientation and New Zealand law, 1960 to 2005. The International Journal of Human Rights, 11(1-2), 85–107. https://doi.org/10.1080/13642980601176282

Rogers, M. L., Hom, M. A., Janakiraman, R., & Joiner, T. E. (2021). Examination of minority stress pathways to suicidal ideation among sexual minority adults: The moderating role of LGBT community connectedness. *Psychology of Sexual Orientation and Gender Diversity*, *8*(1), 38–47. https://doi.org/10.1037/sgd0000409

Sadler, G. R., Lee, H.-C., Lim, R. S.-H., & Fullerton, J. (2010). Recruitment of hard-to-reach population subgroups via adaptations of the snowball sampling strategy. *Nursing & Health Sciences*, *12*(3), 369–374. https://doi.org/10.1111/j.1442-2018.2010.00541.x

Schimanski, I. D., & Treharne, G. J. (2019). "Extra marginalisation within the community":
Queer individuals' perspectives on Suicidality, discrimination and Gay Pride events.
Psychology & Sexuality, *10*(1), 31–44. https://doi.org/10.1080/19419899.2018.1524394

Schlomer, G. L., Bauman, S., & Card, N. A. (2010). Best practices for missing data
management in counseling psychology. *Journal of Counseling Psychology*, *57*(1), 1–
10. https://doi.org/10.1037/a0018082

Skerrett, D. M., Kõlves, K., & De Leo, D. (2015). Are LGBT populations at higher risk for suicidal behaviors in Australia? Research findings and implications. *Journal of Homosexuality*, *62*(7), 883-901. https://doi.org/10.1080/00918369.2014.1003009

Sommers-Flanagan, J., & Shaw, S. L. (2017). Suicide risk assessment: What psychologists should know. *Professional Psychology: Research and Practice*, *48*(2), 98–106. https://doi.org/10.1037/pro0000106

Spittlehouse, J. K., Boden, J. M., & Horwood, L. J. (2020). Sexual orientation and mental health over the life course in a birth cohort. *Psychological Medicine*, *50*(8), 1348–1355. https://doi.org/10.1017/s0033291719001284

Tan, K. K. H., Schmidt, J. M., Ellis, S. J., & Veale, J. F. (2019a). Mental health of trans and gender diverse people in Aotearoa/New Zealand: A review of the social determinants of inequities. *New Zealand Journal of Psychology*, *48*(2), 64-72.

Tan, K. K. H., Treharne, G. J., Ellis, S. J., Schmidt, J. M., & Veale, J. F. (2019b). Gender Minority Stress: A Critical Review. *Journal of Homosexuality*, *67*(10), 1471–1489. https://doi.org/10.1080/00918369.2019.1591789

Tan, K. K., Wilson, A. B., Flett, J. A., Stevenson, B. S., & Veale, J. F. (2021). Mental health of people of diverse genders and sexualities in Aotearoa/New Zealand: Findings from the New Zealand Mental Health Monitor. *Health Promotion Journal of Australia*, *33*(3), 580–589. https://doi.org/10.1002/hpja.543

Taylor, T. R., Kamarck, T. W., & Shiffman, S. (2004). Validation of the Detroit area study discrimination scale in a community sample of older African American adults: The Pittsburgh Healthy Heart Project. *International Journal of Behavioral Medicine*, *11*(2), 88–94. https://doi.org/10.1207/s15327558ijbm1102_4

Te Awekotuku, N. (1991). Mana wahine Māori: Selected writings on Māori women's art, culture and politics. New Women's Press.

Treharne, G. J., & Adams, J. (2017). Critical perspectives on the diversity of research into sexualities and Health in Aotearoa/New Zealand: Thinking outside the boxes. *Psychology of Sexualities Review*, *8*(1), 53–70. https://doi.org/10.53841/bpssex.2017.8.1.53

Treharne, G. J., Riggs, D. W., Ellis, S. J., Flett, J. A., & Bartholomaeus, C. (2020). Suicidality, self-harm, and their correlates among transgender and cisgender people living in Aotearoa/New Zealand or Australia. *International Journal of Transgender Health*, *21*(4), 440–454. https://doi.org/10.1080/26895269.2020.1795959

Trujillo, M. A., Perrin, P. B., Sutter, M., Tabaac, A., & Benotsch, E. G. (2017). The buffering role of social support on the associations among discrimination, mental health, and suicidality in a transgender sample. *International Journal of Transgenderism*, *18*(1),
39–52. https://doi.org/10.1080/15532739.2016.1247405

Tsai, M., Lari, H., Saffy, S., & Klonsky, E. D. (2021). Examining the three-step theory (3ST)
of suicide in a prospective study of adult psychiatric inpatients. *Behavior Therapy*,
52(3), 673–685. https://doi.org/10.1016/j.beth.2020.08.007

Van Orden, K. A., Witte, T. K., Cukrowicz, K. C., Braithwaite, S. R., Selby, E. A., & Joiner,
T. E. (2010). The interpersonal theory of suicide. *Psychological Review*, *117*(2), 575–
600. https://doi.org/10.1037/a0018697

Van Spijker, B. A., Batterham, P. J., Calear, A. L., Farrer, L., Christensen, H., Reynolds, J., & Kerkhof, A. J. F. M. (2014). The Suicidal Ideation Attributes Scale (SIDAS): Community-based validation study of a new scale for the measurement of suicidal ideation. *Suicide and Life-Threatening Behavior*, *44*(4), 408–419. https://doi.org/10.1111/sltb.12084

Williams, A. J., Jones, C., Arcelus, J., Townsend, E., Lazaridou, A., & Michail, M. (2021). A systematic review and meta-analysis of victimisation and mental health prevalence among LGBTQ+ young people with experiences of self-harm and suicide. *PLOS ONE*, *16*(1), e0245268. https://doi.org/10.1371/journal.pone.0245268

Williams, D. R., Yu, Y., Jackson, J. S., & Anderson, N. B. (1997). Racial differences in physical and mental health: Socio-economic status, stress and discrimination. *Journal of Health Psychology*, *2*(3), 335–351. https://doi.org/10.1177/135910539700200305

Wilson, A. (2019) 2023. Queer anthropology. In F. Stein (Ed.), *The Open Encyclopedia of Anthropology*. Facsimile of the first edition in *The Cambridge Encyclopedia of Anthropology*. Online: http://doi.org/10.29164/19queer

Wolford-Clevenger, C., Flores, L. Y., & Stuart, G. L. (2021). Proximal correlates of suicidal ideation among transgender and gender diverse people: A preliminary test of the three- step theory. *Suicide and Life-Threatening Behavior*, *51*(6), 1077–1085. https://doi.org/10.1111/sltb.12790

Wolford-Clevenger, C., Frantell, K., Smith, P. N., Flores, L. Y., & Stuart, G. L. (2018). Correlates of suicide ideation and behaviors among transgender people: A systematic review guided by ideation-to-action theory. *Clinical Psychology Review*, *63*, 93–105. https://doi.org/10.1016/j.cpr.2018.06.009

Yang, L., Liu, X., Chen, W., & Li, L. (2019). A test of the three-step theory of suicide among Chinese people: A study based on the ideation-to-action framework. *Archives of Suicide Research*, *23*(4), 648–661. https://doi.org/10.1080/13811118.2018.1497563

Zimet, G. D., Dahlem, N. W., Zimet, S. G., & Farley, G. K. (1988). The multidimensional scale of perceived social support. *Journal of Personality Assessment*, *52*(1), 30–41. https://doi.org/10.1037/t02380-000

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