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Editor's Introduction

Volume 52, issue 1, long-delayed, presents six articles – more or less the standard number of articles in an issue of NZJP. They reflect a variety of different sub-disciplines of psychology, ranging from a framework for enhanced bi-cultural practice (Tikanga Takirua) proposed by Heffernan and colleagues, through a file-based analysis of rehabilitation retention showing that, of a range of factors, mandated treatment is perhaps the most powerful predictor of retention (Ashdown and colleagues), to analysis of episodes of a popular New Zealand reality crime TV show (Yan and colleagues). This last indicates that, perhaps unsurprisingly, Māori and Pasifika are more frequently depicted in relation to violent crimes and at rates that exceed their actual involvement in violent crimes (based on comparison with National Annual Apprehension statistics). These three very different pieces of work are complemented further by thematic analysis of psychologists response to an online survey about therapist burnout (Blayney and Kercher) that will no doubt resonate with the experience of many others, and a survey-based comparison of Tall Poppy attitudes among New Zealand European, Pasifika and Korean participants. Finally, this issue's paper drawing from a largescale survey comes from that other large project that isn't the New Zealand Attitudes and Values Study – the Youth 2019 Smart Survey. Taken together, these manuscripts represent a diversity not just of topics but also methodological approaches.

As I note above, this issue has been delayed by months. As a result the next issue will follow relatively hot on the heels of this one, and will include a bumper crop of manuscripts. That issue will include several works that commentate on matters of cultural competence for the broad discipline of psychology in Aotearoa and that ubiquitous NZAVS manuscript!

Marc Wilson

New Zealand Journal of Psychology

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CONTENTS

Therapeutic Community Retention Trends and Factors Associated with 3-Month Retention in Aotearoa New Zealand

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It is important to understand predictors of retention in rehabilitation for people with histories of addiction, co-existing mental health issues and criminal offending. This research examined whether admission status, ethnicity, age, substance use and forensic history were associated with length of stay in a therapeutic community in Dunedin. Retrospective data was gathered from clinical files for 240 tāngata whaiora who entered treatment in 2011–2020. The median stay was 111.5 days (mean 182.62, SD 178.23); 80% were retained for at least a month; 56% for 3 months; 38% for 6 months and 26% for 9 months. Having a mandate to undertake treatment was the only significant predictor of retention. Those with mandates were significantly more likely to complete at least 3-months treatment than those without a mandate. These findings demonstrate that mandated treatment may increase retention when few other factors predict retention in therapeutic communities

Keywords: *Criminal offending, substance abuse, drugs and alcohol, addiction, therapeutic community, indigenous health, indigenous peoples, Māori health*

INTRODUCTION

One of the most consistent findings in therapeutic community research is that retention in treatment is associated with positive treatment outcomes for tāngata whaiora (people seeking wellness) with histories of addictions, co-existing mental health issues and criminal offending. There is a wealth of research indicating that the longer one stays in treatment, the better the chances of recovery. But what influences tāngata whaiora to stay in treatment for longer? This article addresses this question by: 1) reviewing international literature in the area of retention in therapeutic communities; 2) investigating what factors may be associated with retention in therapeutic communities in Aotearoa New Zealand and 3) examining trends in retention over a treatment period of 9 months (270 days).

What is a Therapeutic Community?

Therapeutic communities for the treatment of drug addiction were developed in mid-twentieth century and established in England, Western Europe and the United States (Glaser, 1981). Each therapeutic community differs in its treatment goals and how it operates (Glaser, 1981). Some therapeutic communities have a short duration of treatment (e.g., 3 months) and others are longer in durations (e.g., 3 years) (Gowing et al., 2002). Therapeutic communities can be outpatient or residential and some residential therapeutic communities are prison-based (Gowing et al., 2002). Therapeutic communities provide different services to different people including adolescents, women and children, people with a history of criminal offending, psychiatric illnesses, drug addiction and co-existent disorders (Broekaert et al., 2006; Melnick & De Leon, 1999).

The common feature shared by therapeutic communities is that therapy is group-based and involves collaboration between staff and clients who are active participants in their own therapy as well as other clients' therapy (Ashdown et al., 2019; Glaser, 1981; Gowing et al., 2002). The main goal of the therapeutic community is to promote a healthier, drug-free lifestyle and identify areas of behaviour for change (De Leon, 1995). Tāngata whaiora learn about psychological, social, and emotional factors that can lead to drug use or criminal offending by listening to feedback from fellow tāngata whaiora and staff (De Leon, 1995). Therapeutic communities tend to be staffed by both professionally trained specialists as well as people with lived experience and graduates of a therapeutic community programmes who have made significant lifestyle changes to overcome addiction (De Leon, 1995). Most therapeutic communities structure their programmes around three ordinal stages of treatment: 1) induction / early treatment; 2) primary treatment; and 3) re-entry to society (National Institute on Drug Abuse, 2003).

Over the years, the therapeutic community model has been modified to include a variety of additional services such as medical and mental health services, family therapy, education and vocational training (Ashdown et al., 2019; De Leon, 1995). Many therapeutic communities have evolved to be culturally relevant to meet the needs of various ethnic and cultural groups of tāngata whaiora. In Aotearoa New Zealand, some therapeutic communities and other addiction services incorporate cultural

interventions, employ indigenous facilitators, apply traditional indigenous practices and accommodate the use of indigenous language in treatment to improve outcomes for the indigenous Māori population (Ashdown et al., 2019). Likewise, there is an increasing awareness and effort to tailor treatment and therapeutic programmes to meet the distinct needs of immigrant communities to Aotearoa New Zealand, particularly those from Pacific Island nations.

International Research

One of the most consistent findings in therapeutic community literature is that longer duration of treatment is associated with better outcomes (Hubbard et al., 2003). Therefore, retention is an important factor in recovery success (Greenfield et al., 2004; Hubbard et al., 2003; Messina et al., 2000). Some studies have found that those who complete at least 3 months in treatment demonstrate improved treatment outcomes in comparison to those who leave treatment early. Greenfield et al. (2004) reviewed three studies that examined post-treatment abstinence from drugs and alcohol in follow-up interviews with women 6-12 months after discharge from treatment. They found that 68% to 71% of women in the three studies who completed 6 months or more in treatment reported that they were abstinent from drugs and alcohol. Furthermore, those who stayed at least 3 months in treatment and achieved their treatment goals demonstrated similar abstinence rates to those who stayed 6 months. Abstinence rates were substantially lower for those who did not complete treatment (51–52% reported abstinence). Notably, the majority (71%) of women in the three treatment programmes required at least 6 months to complete treatment.

Despite the extensive evidence base demonstrating that retention is associated with improved outcomes, retaining tāngata whaiora in a therapeutic community can be difficult. Stark (1992) noted that half of adults leave drug and alcohol treatment programmes within the first month and between 20–80% leave within 3 months. Attrition rates can be higher in some addiction services than in others. Simpson et al. (1997) found that long-term addiction treatment programmes had higher attrition rates than short-term addiction treatment programmes. Condelli et al. (2000) investigated treatment refusal and attrition in adults randomly assigned to a long-term therapeutic community treatment or a short-term chemical dependency programme. Treatment refusal and attrition were combined as a single outcome which was measured 25 days after admission. Treatment refusal/attrition was significantly higher for participants assigned to the long-term therapeutic community treatment than participants in the short-term chemical dependency programme. Condelli et al. (2000) suggested that higher refusal/attrition rates in the therapeutic community condition could be because the proposed duration of treatment was longer than in the chemical dependency condition. The prospect of long-term residential treatment may be less desirable than short-term residential treatment and this could be why attrition rates were higher in the longer-term therapeutic community condition. Condelli et al. (2000) proposed that treatment refusal and attrition rates could be reduced by structuring programmes in stages so that residents can mark their progress throughout the treatment process.

Research on Therapeutic Communities in Aotearoa New Zealand

In Aotearoa New Zealand, there is limited research on therapeutic communities and residential addiction treatment services. Research specifically investigating retention in treatment is even more limited. Based on a search of the literature, we identified three peer-reviewed and published studies that focused on retention in treatment in a therapeutic community within Aotearoa New Zealand (Mulder et al., 2009; Schroder et al., 2009; Newton-Howes & Stanley, 2015). Another two evaluation reports that have not been published in peer-reviewed journals were also identified (Adamson et al., 2010; King et al., 2019).

Mulder et al. (2009) examined 3-month retention rates and the characteristics of tāngata whaiora who remained for the 3 months in a residential therapeutic community in Christchurch. The researchers conducted structured interviews and administered validated questionnaire measures to 200 consecutive admissions and followed them for 3 months. They found that 57% (107 out of 187) of the cohort remained in treatment for at least 3 months. Those who stayed in treatment for at least 3-months demonstrated higher baseline mental health scores, less lifetime stimulant dependence, higher current hypnotic / sedative dependence, and higher lifetime depression. Mulder et al. (2009) concluded that few factors reliably predict retention and attrition and therefore the process of screening and assessing prospective tāngata whaiora for therapeutic community treatment should be non-discriminatory.

Schroder et al. (2009) examined retention rates from 8 different youth-specific alcohol and drug services in Aotearoa New Zealand during the years of 2003 and 2004. The 8 services ranged from residential, outpatient and day programmes. Some services incorporated kaupapa Māori and Pasifika approaches while others applied Western approaches. Data was collected from 79 qualitative interviews and 184 randomly selected clinical files. The youth participants were aged between 13 – 20. Most participants were male (62%) and identified with three main ethnic groups: New Zealand European / Pākehā (51%), Māori (37%), and Pasifika (8.2%). Schroder et al. (2009) found that the 42 participants from residential youth-specific services stayed in treatment for an average of 2.7 months and 17% of them left treatment within the first month. The study did not find any associations between fixed characteristics such as age, sex, ethnicity, substance use and mental health diagnoses and retention. Participants who reported less internal motivation and more external pressure to engage in treatment were more likely to leave treatment early (defined as within the first month of treatment). Moreover, those who left early were less likely to have reported abstinence from substance-use as a treatment goal and reported lower expectations of the impact of treatment on their lives and substance-use behaviours compared with those who stayed for more than a month. Schroder et al. (2009) proposed that fixed characteristics are not reliable predictors of retention in treatment and that dynamic characteristics such as

motivation, expectations about treatment outcomes, feeling involved throughout the treatment process and positive experiences with treatment staff are reliable factors in predicting retention in youth-specific treatment programmes in Aotearoa New Zealand.

The most recent study examining factors associated with retention in therapeutic communities in Aotearoa New Zealand that we identified was conducted by Newton-Howes and Stanley (2015). They examined factors associated with treatment completion in an 8-week residential programme in Napier called Spring Hill. They reported that 62.2% of tāngata whaiora completed the 8-week programme and there were no differences in completion rates between men and women. The most common drug of misuse was alcohol (51.9%) followed by methamphetamine (16.4%) and cannabis (14.2%) but there was no association between pre-entry drug use and programme completion. Those who identified as Māori were more likely to complete the 8-week programme as were those who had conflict with family or housing problems. Newton-Howes and Stanley (2015) concluded that pre-entry drug-use does not affect engagement in nor completion of an abstinence-based residential treatment programme. Furthermore, they suggested that those who are homeless or identify as Māori are more likely to complete the 8-week programme.

From our searches of the literature, we identified two further articles that reported descriptive data on retention rates in Aotearoa New Zealand (Adamson et al., 2010; King et al., 2019). The two reports described retention trends but did not investigate factors associated with retention. The first report was an evaluation conducted by King et al. (2019) who reviewed Higher Ground, a short-term residential therapeutic community (up to 18-weeks in duration) in Auckland. For the years between 2012 and 2018, they found that the average length of stay was 80 days with 51% of residents retained for 90 days. It took 126 days on average to complete the programme but only 32% graduated the programme. The second report was conducted by Adamson et al. (2010) who examined archival data from Moana House, a residential therapeutic community for men in Dunedin as part of a service evaluation report. Retention trends for the years of 2008 and 2009 were examined. In 2008, 77% of tāngata whaiora stayed at least 30 days and 45% stayed for 90 days or more. In 2009, the retention rates were higher with 89% staying at least 30 days and 67% staying for 90 days or more. Adamson et al. (2010) proposed that whānau involvement in treatment and the significant Māori cultural components embedded in the therapeutic community were possible explanations for the relatively high retention rates observed in the evaluation. These explanations are supported by international research proposing that retention can be strengthened by the involvement of whānau in treatment and facilitating cultural practice for indigenous tāngata whaiora (Broekaert et al., 2006; Fisher et al., 1996). These explanations were further elaborated on in a qualitative study exploring the experiences of tāngata whaiora in the same therapeutic community evaluated by Adamson et al. (2010). In the research by Ashdown et al. (2019), seven Māori male tāngata whaiora were interviewed about their experiences in the therapeutic community. Participants reported that healing family relationships and reconnecting with their Māori culture were important aspects of their experience in the therapeutic community.

The Present Study

The research reviewed above demonstrates that retention in treatment is associated with efficacy of therapeutic community treatment and post-treatment outcomes. Despite this, many therapeutic communities throughout the world report that it is a constant challenge to retain tāngata whaiora for longer periods of time. Changes in drug use behaviours over recent years and increases in the availability of more harmful drugs in Aotearoa New Zealand, particularly methamphetamine, means that services and policy makers need to adapt to the continuously changing presentations and needs of tāngata whaiora. Recent data from the Moana House annual report suggests that the substance-use patterns of those seeking residential drug and alcohol services in Aotearoa New Zealand have changed. In 2010, 13% of Moana House referrals were methamphetamine related and for the most recent year 2019 – 2020, 81% of referrals were methamphetamine related (Moana House Annual Report, 2020). Internationally there is a wealth of data on the types of people who access therapeutic community treatment programmes, retention trends and factors associated within retention. Domestically, in Aotearoa New Zealand there remains a lack of quantitative data on the types of people who access residential therapeutic community programmes. The studies identified in this literature review that examined domestic retention trends and factors associated with retention in Aotearoa New Zealand were conducted 5-10 years ago and only reported on short-term (8-week or 3-month) retention trends (Adamson et al., 2010; Mulder et al., 2009; Schroder et al., 2009). The previous studies are limited in that they do not provide detailed information on characteristics of tāngata whaiora nor any data on long-term retention trends (i.e., more than 3 months). Given that there is large international evidence-base demonstrating the association between retention and improved post-treatment outcomes and lack of up-to-date data on retention in residential therapeutic communities in Aotearoa New Zealand, the present study developed the following aims and addresses the subsequent research questions.

Research Aims and Hypotheses

- To provide further information about the characteristics of people attending therapeutic communities in Aotearoa New Zealand.
- To provide insight into retention trends in therapeutic communities in Aotearoa New Zealand over a 9-month treatment period and examine what factors are associated with retention for 3 months or longer in therapeutic communities in Aotearoa New Zealand.

Based on past research it was predicted that that 1-month, 3-month, and 9-month retention trends would be similar to those previously reported in Aotearoa New Zealand and that the number of days tāngata whaiora remain in treatment would be associated with the fixed characteristics of age, ethnicity, number of convictions, substance-use, and admission status (mandated or not).

METHOD

The Programme

Moana House is a residential therapeutic community located in Dunedin that was established in 1983 as an alternative to any further imprisonment for men with histories of addiction and criminal offending (Adamson et al., 2010). The residential programme is aimed to be 9 months long with 3 months of after care. However, the length of time spent in residential or after care services is flexible and tailored to meet the needs of the individual. Some stay longer while others leave earlier. It should be noted that if an individual leaves early, this does not mean they did not complete their programme as treatment plans are individualized. For example, some stay for a short time to undertake an assisted detox while others decide to transition to other services closer to where they live. The residential and after care services are only for men but there is also a continuing care service which offers outpatient services to both men and women. In this study we only gathered data from men participating in the residential programme.

The Moana House residential programme is based on four stages of treatment which are Whakaohooho (awakening / assessment); Stage I: Āhuatanga (the 'shape' of recovery); Stage II: Mōhiotanga (understanding); and Stage III: Mana Motuhake (autonomy and self-determination) (Adamson et al., 2010). The framework of practice referred to as 'Te Heke Tikanga' was developed in consultation with a wide range of stakeholders at a local marae and is underpinned by three core values: tika (honesty, truthfulness, integrity), pono (good faith and belief in the goodness of others, and aroha (love and compassion). Heke Tikanga incorporates tikanga into the everyday running of the programme and clinical practice (although Moana House does not identify as a Kaupapa Māori service despite the strong influence of Māori cultural practices embedded in the programme). An example of how tikanga is incorporated into the programme is that every visitor to the House is welcomed in the process of mihi whakatau, which is a traditional Māori speech process for welcoming and greeting visitors. The Heke Tikanga framework provides a structure in which staff, tāngata whaiora and whānau can collaborate to improve overall health and wellbeing.

Design

This study utilized a retrospective case-control design. Descriptive analyses are presented on retention trends over a 9-month (270-day) treatment period. Inferential analyses are presented on the associations between fixed client characteristics (age, ethnicity, number of convictions, substance-use, admission status) and the length of stay in treatment.

This research is significant to Māori as the majority of the sample in this study identified as Māori. Therefore, it was fundamental that the design of this study incorporated Kaupapa Māori Research principles. A Kaupapa Māori approach requires research to be conducted by Māori researchers, with Māori participants and for the benefit of Māori people (Smith, 2021). The primary author and one co-author in this study are Māori psychology researchers and have an awareness and understanding of Māori cultural values, knowledge, beliefs and Māori language thus allowing the research to be interpreted from a Māori worldview (Smith, 2021). Although qualitative research methods align more strongly with Kaupapa Māori research methods, it is important to highlight that the two Māori researchers were uniquely positioned to interpret and consider the implications of the findings from a Māori perspective.

Audit Sample

The sample consisted of 240 resident clinical files from the archives of the Moana House therapeutic community in Dunedin, Aotearoa New Zealand. Data were collected from Moana House archives dating from 2011–2020. Information was collected on age, ethnicity (and iwi for Māori), forensic history (number of criminal convictions), admission status (whether or not treatment was mandated), type of substance-use disorder and length of stay. An additional 13 clinical files were accessed but excluded from the study as the length of stay data was missing. Approval for the study was provided as a service audit by the Downie Stewart Foundation who oversee Moana House.

Criterion Variable

Length of Stay: Length of stay was calculated in days from the date of admission to the date of discharge. Where figures are expressed in months, these are calculated as 30-day periods as opposed to calendar months for each individual's specific period of residence to provide better equivalence. We chose to make comparisons between those who stayed less than and more than 90 days because 90 days treatment has been suggested as a minimum treatment period to benefit from therapeutic community treatment. Another study of retention in therapeutic communities in Aotearoa New Zealand also examined factors associated with 90 days retention and we chose to examine factors associated with 90 days retention so that comparisons can be made with research in a local context (Mulder et al., 2009).

Predictor Variables

Ethnicity: Ethnicity and iwi were determined by self-reported primary identification with one of three ethnic groups (NZ European / Pākehā, NZ Māori, Pasifika).

Forensic History: The number of convictions was obtained from both self-reports and official records. Forensic history was recorded as the total number of convictions at the time of admission and divided into two groups: more than or less than 20 convictions. We chose to categorize forensic history into more than or less than 20 convictions so that comparisons could be made between the findings of this study and another local study that investigated whether having more or less than 20 convictions was associated with 90-day retention in treatment in Aotearoa New Zealand (Mulder et al., 2009).

Admission Status (mandated vs no mandate): Legal status at the time of admission was obtained from official documents held on file. The types of legal status recorded were bail, parole, partial residential restrictions, community-based sentence, intensive supervision. Legal status was divided into two groups: mandated (bail, parole, partial residential restrictions, community-based sentence, intensive supervision) and no mandate. Those

with mandates had specific legal conditions to undertake residential drug and alcohol treatment.

Substance-use: Type of substance-use disorder was obtained from comprehensive assessments using the American Psychiatric Association (2013) diagnostic criteria as a screening tool for substance-use disorder.

Statistical Analysis

Retention rates across the 9-month period from the date of admission were calculated as the percentage of people remaining in treatment at each 30-day time point across 270 days. Comparisons between those who stayed less than 90 days and those who stayed 90 or more days were conducted using χ^2 tests for categorical variables. Means are reported for normally distributed variables and medians are also reported for skewed variables. Logistic regression analysis was planned to determine the independent association of variables that showed significant association ($p < .05$) with 3-month retention. Because some clinical files were only partially complete, the number of missing cases ranged from 0 (for length of stay and age) to 32 (for number of convictions). Missing data analysis revealed no associations between missing data status and the criterion variable of length of stay.

RESULTS

Characteristics of tāngata whaiora

The age range of tāngata whaiora was 18 – 56, with a median of 32 (mean 33.06, SD = 8.82). Ethnicity data was recorded for 238 of the 240 tāngata whaiora and the majority of tāngata whaiora were Māori (71.8%), with 28.2% non-Māori. Data on the number of convictions were available for 208 of the 240 tāngata whaiora. The range was 3 – 251 convictions with a median of 48.5 and considerable positive skew (mean 60.52, SD 49.91). The majority of tāngata whaiora had 20 or more convictions (78.8%). Data on the admission status were available for 231 of the 240 tāngata whaiora, and the majority had some form of mandate to undertake treatment (82.3%). Data on substance-use disorder were available for 214 of the 240 tāngata whaiora. All 214 met the diagnostic criteria for a substance-use disorder. Most had used more than one substance (93.9%), with 26.6% using two substances, 32.2% using three, and 35.1% using four or more.

Descriptive data on length of stay

Data on length of stay were available for 240 tāngata whaiora. The range was 1 – 803 days (2.20 years) and the median was 111.5 days, with positive skewness (mean 182.62, SD 178.23). Figure 1 displays the percentage of tāngata whaiora who were retained in treatment at each 1-month (30-day) block over the anticipated 9-month treatment period. This analysis revealed that 80% were retained for at least a month; 56% were retained for at least 3 months; 38% were retained for 6 months; and 26% were retained for 9-months. The period with the lowest rate of retention was the first 30 days where 20% of arrivals did not complete the first month of treatment. Across the 9-months, retention sharply declined for the first 3 months after which retention declined relatively more steadily (see Figure 1).

Comparison of length of stay with individual characteristics

Admission status: There was a significant association between admission status and 90-day retention, with those who stayed for 90 days or more being significantly more likely to have a mandate to undertake treatment (see Table 1). Tāngata whaiora with no mandate stayed an average of 98.63 days and those who were mandated stayed an average of 204.71 days. This means that those who were mandated to undertake treatment stayed 106.07 days more on average than those with no mandate, and this association is statistically significant (see Table 1).

Forensic history: There was no significant association between forensic history and 90-day retention rates. Those who had 20 convictions or more demonstrated similar 90-day retention rates to those with less than 20 convictions (see Table 1).

Ethnicity: There were no significant associations between ethnicity and 90-day retention rates. The tāngata

Figure 1. The percentage of tāngata whaiora (n = 240) who remained in treatment at each 1-month (30-day) timepoint over 9 months between 2011 – 2020

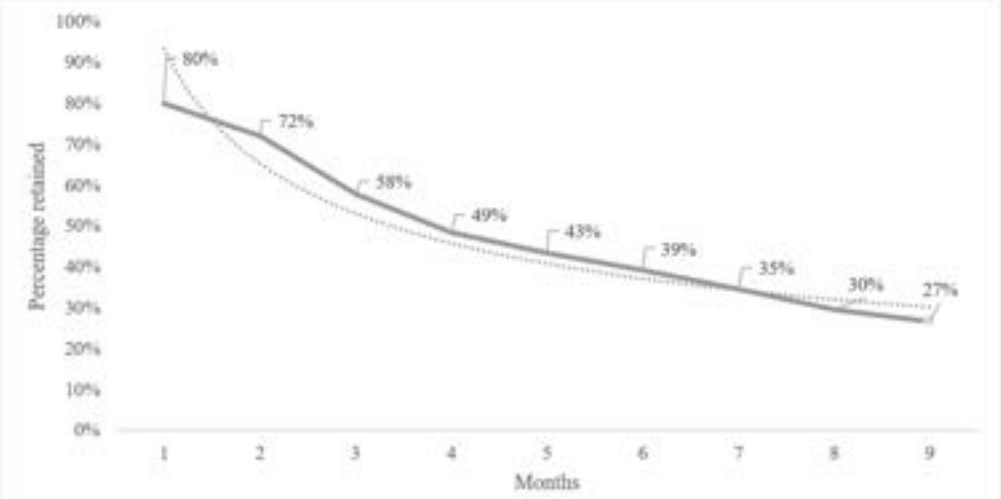

Table 1. Percentage of tāngata whaiora who stayed less than or more than 90 days in treatment as a function of admission, forensic history, ethnicity, age and polysubstance use

Independent variables	N	Less than 90 days	90 days or more	χ^2 (1)	*P*
Admission status	231				
Mandated	190	69% (n = 67)	92% (n = 123)	19.89	<.001
No mandate	41	31% (n = 30)	8% (n = 11)		
Forensic history	208				
< 20 convictions	44	21% (n = 18)	21% (n = 26)	<0.001	.995
20 or more	164	79% (n = 67)	79% (n = 97)		
Ethnicity	238				
Māori	168	76% (n = 78)	68% (n = 93)	1.89	.170
Non-Māori	67	24% (n = 24)	32% (n = 43)		
Age	240				
25 and under	48	16% (n = 71)	23% (n = 31)	1.88	.390
26 – 50	183	81% (n = 83)	73% (n = 100)		
51+	9	3% (n = 3)	4% (n = 6)		
Polysubstance Use	214				
Yes	201	93% (n = 81)	95% (n = 120)	.17	.677
No	13	7% (n = 6)	5% (n = 7)		

Table 2. Percentage of residents (*n* = 214) who stayed less than or more than 3months in treatment as a function of substance-use disorder diagnoses

		<90 days	90 days or more	χ^2(1)	*P*
Alcohol:	Yes	84% (n = 73)	87% (n = 183)	.31	.581
	No	16% (n = 14)	13% (n = 31)		
Opioids:	Yes	31% (n = 27)	31% (n = 40)	.01	.943
	No	69% (n = 60)	69% (n = 87)		
Caffeine:	Yes	3% (n = 3)	7% (n = 9)	1.29	.256
	No	97% (n = 84)	93% (n = 118)		
Stimulants:	Yes	71% (n = 62)	69% (n = 87)	.19	.666
	No	29% (n = 25)	31% (n = 40)		
Cannabis:	Yes	82% (n = 71)	86% (n = 109)	.69	.407
	No	18% (n = 16)	14% (n = 18)		
Nicotine:	Yes	39% (n = 34)	46% (n = 58)	.92	.339
	No	61% (n = 53)	54% (n = 69)		
Inhalants:	Yes	7% (n = 6)	6% (n = 8)	.03	.862
	No	93% (n = 81)	94% (n = 119)		
Hallucinogens:	Yes	15% (n = 13)	18% (n = 23)	.37	.543
	No	85% (n = 74)	82% (n = 104)		
Benzodiazepines:	Yes	14% (n = 12)	11% (n = 14)	.37	.542
	No	86% (n = 75)	89% (n = 113)		
Sedatives:	Yes	5% (n = 4)	9% (n = 11)	1.31	.253
	No	95% (n = 83)	91% (n = 116)		

whaiora who were Māori demonstrated similar 90-day retention rates to non-Māori (see Table 1).

Age: There were no significant age differences between those who completed 90 days or more treatment and those who completed less than 90 days. Those who stayed 90 days or more were a similar age, on average, to those who stayed less than 90 days (see Table 1).

Substance use: There were no significant differences in the number of substance-use disorders between those who completed 90 days or more treatment and those who completed less than 90 days. Those who stayed 90 days or more presented with, on average, the same number of substance-use disorders (around three substance use disorders) as those who stayed less than 90 days (see

Table 3. Prediction of average length of stay as a function of admission status (mandated vs no mandate)

	Coefficients	*SE*	*t*	*P*	Lower 95%	Upper 95%
Intercept	98.63	27.42	3.32	<.001	44.61	152.66
Mandated	106.07	30.23	3.83	<.001	46.51	165.64

Table 1). Furthermore, there were no significant associations between type of substance-use disorder and 90-day retention rates (i.e., those who presented with a history of stimulant use showed similar retention rates to those who did not have a history of stimulant use) (see Table 2).

Logistic regression predicting length of stay

Because admission status (mandated vs no mandate) was the only variable associated with 90-day retention in the above bivariate analyses, the logistic of relevant variables confirmed the association between admission status and length of stay (Table 3) as no other variables predicted retention.

DISCUSSION

This research has three main findings that provide novel insight into retention in therapeutic communities within the context of Aotearoa New Zealand. Firstly, the study provides novel insight into long-term retention trends within the context of Aotearoa New Zealand. Across a 9-month period, 80% of admissions were retained for 1 month, 56% for 3 months, 38% 6 months and 26% for 9 months. The sharpest decline in retention was from admission until 3 months, after which retention steady declined. Secondly, the results show that being mandated to undertake treatment was significantly associated with retention of 3 months or more in treatment. This is the first study in Aotearoa New Zealand to find that mandated treatment is associated with increased retention in drug and alcohol treatment programmes. Thirdly, age, ethnicity, substance-use history and forensic history did not predict 3-month retention, which indicates that these characteristics may not be predictive of who will do well in therapeutic community treatment programmes.

Within Aotearoa New Zealand there are few studies available to compare retention trends with those reported in this study. Shroder et al. (2009) reported that 17% of admissions of youth attending residential and day programmes left within the first month. Newton-Howes and Stanley (2015) reported that 62% of tāngata whaiora completed an 8-week residential therapeutic community programme at Spring Hill in Napier. Similarly, Mulder et al. (2009) reported that 57% remained in treatment for 3 months or more at Odyssey House residential therapeutic community in Christchurch. And King et al. (2019) reported an average length of stay over a 6-year period of 80 days, with 51% retained for 90 days at Higher Ground residential therapeutic community in Auckland. Adamson et al. (2010) reported varying retention data gathered from the same population as the present study at the Moana House therapeutic community for the years prior to the present data collection period. For the year 2008, Adamson and colleagues reported that 77% stayed at least 1 month and 45% stayed for 3 months or more while in 2009 the retention rates were higher with 89% staying at least 1 month and 67% staying for 3 months or more.

In comparison with local retention data available, the retention rates observed in the present study are similar to those reported throughout therapeutic communities in different regions of Aotearoa New Zealand, but it should be noted that there is very little data available for comparison. Although comparisons in retention trends between treatment programmes are difficult due to the high variability in therapeutic community programmes, tāngata whaiora characteristics and methodological constraints, the widespread reporting in the international literature of challenges in retaining tāngata whaiora over the long-term appears to be a feature shared by therapeutic communities in Aotearoa New Zealand.

This study found novel findings within the context of Aotearoa New Zealand in that tāngata whaiora who were mandated to undertake treatment were significantly more likely to complete 3 months of treatment than those without a mandate. Moreover, those who were mandated tended to stay 106 days longer on average than those who were not mandated. This association was not found in the other major local study that examined the association between mandated treatment (and other variables) and 3-month retention in a therapeutic community in Christchurch, Aotearoa New Zealand (Mulder et al. 2009). The results are, however, consistent with international literature on 3-month retention predictors. Hiller et al. (1998) examined retention rates across 18 residential treatment programmes in the US and found that those who reported moderate to high legal pressure to undertake treatment were significantly more likely to complete 3 months or more treatment than those with low legal pressure.

Prior research indicates that tāngata whaiora who have been mandated to undertake treatment experience lower motivation than those who are not mandated (Harford et al., 1976). The issue of motivation is important as higher internal motivation has been shown to be associated with long-term behavioural change (Deci & Ryan, 1985). More recent research, however, demonstrates that although tāngata whaiora who undertake mandated treatment report lower motivation levels than those who undertake treatment without having a mandate, those with mandates are just as, or more likely to complete treatment than those without (Coviello et al., 2013; Brecht et al., 1993; Farabee et al., 1998; Hiller et al., 1998; Kelly et al., 2005; Martin et al., 2003). Moreover, Kelly et al. (2005) reported that although motivation was lower for those with mandates, they showed similar levels of therapeutic change as those

who were not mandated both during treatment and 5-years afterwards.

Although there is increasing evidence to suggest that mandated treatment is associated with increased retention in therapeutic communities, the finding should be treated with caution as it does not provide evidence of a direct causal relationship that mandated treatment results in improved post-treatment outcomes. As highlighted by Schroder et al (2009), while time in treatment is a strong predictor of improved treatment outcomes, it may not be a sufficient predictor alone and is unlikely to be the sole reason for more successful outcomes.

There was no significant association between ethnicity and overall length of stay. The association between ethnicity and retention in Aotearoa New Zealand is mixed. The results of the present study support those of Mulder et al. (2009) who found that Māori were just as likely to complete 3 months treatment as non-Māori. Likewise, Shroder et al. (2009) reported that Māori, Pasifika, European and amalgamated other ethnic groups did not differ in retention in drug and alcohol treatment programmes for youth. Newton-Howes and Stanley (2015) found that Māori were significantly more likely to complete an 8-week residential treatment programme than non-Māori and whilst this might be considered surprising given persistent criminal justice inequities for Māori, the authors stated that the reason for this result was unclear.

Internationally, some studies have found that indigenous and minority populations tend to stay less time in treatment. Li et al. (2013) reported that indigenous aboriginal people from Canada were significantly less likely to complete an inpatient detox treatment programme than non-aboriginal people while De Leon et al. (1993) reported that Latino men were significantly less likely to complete 30 days and 1 year's treatment in the US than African and White Americans. Melnick et al. (1997), however, found no differences in 45-day retention rates for White Americans, African Americans, and Latinos. The results of the present study support other local research that suggests that there is no association between ethnicity and retention in treatment within the context of Aotearoa New Zealand. These results are particularly encouraging given the substantial proportion of Māori who access residential therapeutic community treatment services in Aotearoa New Zealand.

There was no significant association between the number of convictions tāngata whaiora reported at entry and 3-month retention. Tāngata whaiora who had an extensive criminal history (20 or more convictions) were just as likely to be retained for 3 months or more as those who had a less extensive criminal history. These results are consistent with other local reports in Aotearoa New Zealand by Mulder et al. (2009) who did not find any association between forensic history and 3-month retention. The implications of this finding are important in that it indicates that one's criminal history should not prevent them from being able to access treatment. As the results indicate, tāngata whaiora with extensive histories of criminal recidivism demonstrate the same retention rates as those with less extensive histories.

The international evidence base to support this claim is mixed. Evans et al. (2009) investigated factors associated with treatment completion in 30 programmes throughout California. They found that those who left early had more extensive criminal histories than those who completed treatment. Likewise, Huebner and Cobbina (2007) reported that those with extensive criminal histories were more likely to leave treatment early. Lang and Belenko (2000) also reported that those who completed community-based residential treatment programmes as an alternative to prison had less drug-related convictions than those who left early.

There were no significant differences in 3-month retention rates for the three age groups (25 or younger, 26-50 or 51 or older). These results support other local findings in Aotearoa New Zealand that reported no association between age and 3-month retention (Mulder et al., 2009). Some international studies, however, have reported that age may predict retention and programme completion. Harley et al. (2018) found that those less than 25 years of age and those over 50 were significantly less likely to complete a therapeutic community programme based in Australia. They reported that the age category that was most likely to complete treatment was those aged 26 – 50 with the peak age associated with treatment completion being 38. Similarly, Malivert et al. (2012) reported that older people were more likely to leave treatment early in a meta-analysis of 12 studies examining the effectiveness of therapeutic communities. However, López-Goñi et al. (2008) reported that younger people were more likely to leave treatment early and those older than 44 were more likely to complete treatment. A recent study by Andersson et al. (2018) also reported that those under 25 were significantly more likely to leave early. While Keen et al. (2001) reported no association between age and retention. The evidence is mixed on whether age is associated with retention but in the context of Aotearoa New Zealand there is no evidence to suggest that an individual's age can predict the likelihood that they remain in treatment for 3 months or more. The implication is that adult tāngata whaiora should have equal access to treatment and age should not be a determining factor in suitability for therapeutic community treatment in Aotearoa New Zealand.

There was no significant association between substance-use and 3-month retention. Those who presented with polysubstance use at entry demonstrated similar 3-month retention rates as those who only presented with a disorder diagnosis for one substance. Furthermore, there was no significant difference in 3-month retention rates between the different types of substance-use presentations. For example, those who presented with a history of stimulant use (e.g., methamphetamine) were just as likely to be retained for 3 months as those who did not. These results differ to those of Mulder et al. (2009) who reported that sedative use was associated 3-month retention and stimulant use was associated with leaving early in another therapeutic community in Aotearoa New Zealand.

Internationally, the evidence-base for the association between substance use factors (e.g., type of substance use and polysubstance use) and retention is mixed. Some studies reported that opioid use was associated with leaving treatment early (Evans et al., 2009; Zanis et al., 2009) while others have reported that stimulant use was associated with leaving early (Brown, 2010; Mulder et al.,

2009; Joe et al., 1999). Andersson et al. (2018) reported that leaving treatment early was associated with intravenous drug use or having alcohol as the primary substance of concern. Some studies have reported no associations between polysubstance use and retention (Keen et al., 2001) while others have found associations between polysubstance use and increased risk of leaving treatment early (Andersson et al., 2018). It is difficult to draw any firm conclusions on the association between type of substance-use and polysubstance use on retention in therapeutic communities given the wide range of findings in the literature. The results of the present study, however, are promising in that the modified therapeutic community model specific to this study appears to be effective in retaining tāngata whaiora regardless of what type of substance-use disorder they present with or whether they present with polysubstance use.

The findings of this study suggest that there are few factors that predict retention in therapeutic communities in Aotearoa New Zealand. However, there may be some practitioners, service providers and policy makers within the health sector who are biased towards believing that certain factors mean that some tāngata whaiora will not do well in treatment (personal communication, Moana House Programme Director, October 5th, 2021). Some service providers may decline referrals because they view them as unmotivated due to the fact that they have been mandated by the court or a parole board to undertake treatment. Indeed, previous research with tāngata whaiora at the Moana House therapeutic community indicated that some tāngata whaiora initially enter treatment as a "get out of jail card", however, this does not mean that one is unmotivated. Ashdown et al. (2019) suggested that although some participants may be extrinsically motivated before entering treatment (e.g., motivated by external factors such as getting out of prison), with time in treatment and progression towards programme goals, this motivation changes to more intrinsic motivations (e.g., to improve one's wellbeing for themselves and their whānau).

Historically, Māori communities, indigenous peoples and ethnic minorities internationally have been marginalized by society and state health systems, resulting in inequities in health and wellbeing outcomes (Ashdown et al., 2018). However, given that there was no association between ethnicity and length of stay in treatment in this study, the modified therapeutic community could be an equitable treatment service option for tāngata whaiora. This could be due to the imbedded cultural and whānau-based interventions in the Moana House programme (Ashdown et al., 2019).

Practitioners, addiction service providers and policy makers should consider the importance of culture when designing and delivering services. Furthermore, addiction services should be accessible to all tāngata whaiora, regardless of whether they have been mandated to undertake treatment. Service specifications and contracts for organizations that provide addictions services should be designed in a way that reduces barriers to access.

Limitations

The present study had several limitations relating to research design and generalisability of findings. Firstly, the study examined data from men only and therefore the study does not provide us with any retention information relating to women and their dependents (babies and young children), non-binary people, or youth attending residential therapeutic community treatment programmes in Aotearoa New Zealand. Secondly, data was only collected from one residential therapeutic community (Moana House) and therefore the observed findings may be limited to this specific treatment programme. Comparisons with research involving other therapeutic communities are difficult due to inherent differences in programme delivery, tāngata whaiora characteristics and research design. Thirdly, given that this was a retrospective study that involved data from archives, some data were missing. Missing data reduced the statistical power of the study and consequently the findings may not be a reliable representation of the population. Furthermore, only a limited number of variables (admission status, age, forensic history, substance-use) were available to be abstracted and analyzed in relation to their association with retention and therefore the research does not provide information on how other factors (e.g., mental health, support, motivation, severity of substance use etc.) could be related to retention. Finally, the study does not provide any information about factors associated with long-term retention (e.g., 6, 9 and 12 months) nor post-treatment outcomes. Although the results suggest that having a mandate to undertake residential therapeutic community treatment is associated with increased retention, this does predict that mandated treatment will result in long-term improvements in health and wellbeing post-treatment.

Future research

There is a concerning lack of research in therapeutic community programmes in Aotearoa New Zealand. To date, only two other peer-reviewed research articles have been published that have examined factors associated with retention in therapeutic communities (Mulder et al., 2009; Newton-Howes & Stanley, 2015). A number of programme evaluations have reported on retention data in Aotearoa New Zealand but relevant findings have not been published in peer-reviewed journals. This raises the question: How effective are therapeutic communities at producing long-term improvements in health and wellbeing in Aotearoa New Zealand? A nation-wide, comprehensive study that collects data from various therapeutic communities throughout Aotearoa New Zealand (including services for woman and their children) focusing on long-term retention trends, factors associated with long-term retention, and post-treatment outcomes could reduce the current knowledge gap by providing valuable data on the efficacy of therapeutic community programmes in Aotearoa New Zealand.

Conclusion

The present audit study highlights the considerable lack of research available in relation to therapeutic communities in Aotearoa New Zealand. The findings bridge this knowledge gap by providing novel insight into long-term retention trends and factors association with 3-month retention in treatment. After analyzing associations between length of stay in treatment and five variables (admission status, ethnicity, forensic history, age and

substance-use), admission status was the only variable significantly associated with 3-month retention. Those who were mandated to undertake treatment were significantly more likely to remain in treatment for 3 months or more than those who were not mandated. This finding should be considered with caution as the study does not provide any evidence of a direct causal relationship between mandated treatment and long-term improvements in health and wellbeing post treatment. The findings support an unbiased approach to admission into treatment as few factors appear to be able to predict who will do well in therapeutic communities in Aotearoa New Zealand. In other words, regardless of one's past, all people seeking therapeutic community support should continue to have equal access to a range of well-resourced therapeutic services to improve their health and wellbeing.

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Tikanga Takirua: A Framework for Bi-cultural Practice in Psychology

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This paper aims to highlight and begin to address the need for enhanced bi-cultural practice within psychology in Aotearoa New Zealand. We will first consider the contemporary context, with a focus on the importance of bi-cultural practice in this field. We then propose a preliminary framework, named Tikanga Takirua, to guide practice in this space. We introduce the metaphor of a waka hourua (double hulled canoe) as the foundation of this approach and then outline the six phases of Tikanga Takirua, which are adapted from the five steps of the evidence-based practice inquiry process. Our aim is to provide a way forward to ultimately achieve equity between ngā pūkenga Māori (Māori expertise) and Western psychological approaches in collaborative practice, to enhance the wellbeing of our people.

Key words: *Bi-cultural, Māori, Psychology, Culture.*

INTRODUCTION

Aotearoa's bi-cultural identity can be traced back to its founding document, *Te Tiriti o Waitangi*, the Māori language version of the Treaty of Waitangi (a formal document designed to facilitate a mutually beneficial relationship between indigenous Māori and European settlers in 1840). This document set out an intended partnership, where Māori retained *tino rangatiratanga* (absolute sovereignty, the right to live autonomously on their own terms) and were afforded the same rights as British citizens. However, subsequent years saw the privileging of European ways of being and knowing and the suppression of Māori language and knowledge, as well as the confiscation of natural resources. It is well established that colonisation and the resulting marginalisation of indigenous knowledge systems over time (e.g., the Native Schools and Tohunga Suppression Acts) has contributed to poorer outcomes for Māori across numerous wellbeing indicators (e.g., mental health, criminal justice; Waitangi Tribunal, 2017; Wilson et al., 2021). Given these areas of pronounced need, there is a high likelihood of Māori interacting with Psychologists and other rehabilitative and health practitioners. Further, outcomes of mental health interventions are worse for Māori than the general population (Government Inquiry into Mental Health and Addiction, 2018). It has been suggested that "at the heart of current Māori 'un-wellness' is colonisation, institutionalised racism, unconscious bias and a western model of wellbeing, with systems that strengthen that model and perpetuate further inequity than those already experienced by Māori" (Government Inquiry into Mental Health and Addiction, 2018, p. 40). We suggest that to address this issue we need to uplift indigenous knowledge within the social sector in Aotearoa, including psychological services (Macfarlane et al., 2011).

In recent years there has been an increase in attention towards the spaces between indigenous and Western streams of knowledge within the field of psychology in Aotearoa (e.g., Jordan et al., 2021; Macfarlane et al., 2011; Macfarlane & Macfarlane, 2019; Martel et al., 2021). This has prompted the development of several frameworks and suggestions for research and practice which can uplift Māori knowledge in a more authentic and equitable way, by avoiding assimilation or tokenism and using complementary research methodologies. Similar developments are taking place within Governmental agencies, as they aim to address inequities and operate in a more bi-cultural way (e.g., Department of Corrections, 2019). The strategies and initiatives implemented have yet to establish their efficacy in terms of resulting in systemic changes that benefit Māori, but they are a step in the right direction. Unfortunately, high level strategies can be challenging to implement within day-to-day practice without adequate practical guidance and operationalisation. We suggest that there is a need for a bespoke framework for bi-cultural psychological practice, to ensure its relevance in terms of the core tasks, ethical responsibilities, and challenges of the role.

Cultural capability and responsiveness to clients' diverse needs and ways of seeing the world is a cornerstone of psychological practice in Aotearoa (Code of Ethics Review Group, 2012; Macfarlane et al., 2011). While it is widely acknowledged that Aotearoa is a bi-cultural country and a commitment to equitable outcomes is important, mental health professionals often do not feel adequately equipped to work with Māori (Johnstone & Read, 2000; Sawrey, 1993). We suggest that one reason for this is the heavily Westernised curriculum within tertiary education. Despite on-going efforts to decolonise psychology in Aotearoa, there is an emphasis on diagnosis and standardised assessment, and internationally developed and researched interventions, and, while there is some attention paid to bi-cultural or indigenous issues, this is secondary (King et al., 2017; Levy, 2002; Levy & Waitoki, 2015). This means that many Psychologists

begin their careers with substantial Western psychological expertise, and a paucity of knowledge and experience of Te Ao Māori (a Māori worldview); they are under-prepared to work with a large proportion of their client base (Macfarlane et al., 2011; Masters-Awatere et al., 2003).

Several recent events have brought these issues into stronger focus. Firstly, in a 2018 Waitangi Tribunal claim, Dr Michelle Levy (a Māori Clinical Psychologist) cited a failure on the part of the Crown to ensure that Psychology in Aotearoa meets the needs of Māori (Waitangi Tribunal, 2018). This includes the failure to ensure that Psychologists are culturally competent to work with Māori and the recommendation that the Crown implement practices to address the disparities between Māori and Tauiwi (non-Māori) in the field of psychology and elevate the use of mātauranga. It is important to note that these criticisms are not universally accepted within the discipline; others have suggested that Psychologists within Corrections are meeting the cultural needs of Māori (Castell et al., 2018). While Castell and colleagues (2018) acknowledge that we can and should strive to do better, they highlight a reduction in reoffending for Māori following treatment and five qualitative studies where most Māori participants perceived treatment positively and as meeting their cultural needs. This suggests that there is likely variability in both practitioner perspectives of practice (i.e., in terms of whether it meets the needs of Māori) and the quality of bi-cultural psychological practice occurring across settings.

Secondly, a recent letter by seven prominent University of Auckland academics, entitled *In Defence of Science* (Radio New Zealand, 2021) was published in *The New Zealand Listener* (a current affairs magazine) in July 2021. This letter was a response to criticisms of the use of science to suppress indigenous knowledge and calls to make changes to Aotearoa's secondary school curriculum which elevate mātauranga (Māori knowledge) and Te Ao Māori (a Māori world view). The letter claimed that mātauranga Māori "falls far short of what can be defined as science itself" (Radio New Zealand, 2021). The resulting controversy included statements from The University of Auckland, The Royal Society Te Apārangi (of which three of the letter's authors were members), and the New Zealand Psychological Society (as two of the academics were Psychology Professors), disagreeing with the claims made in the letter (Radio New Zealand, 2021). This interaction brought the issue of epistemic primacy (discussed further below) into public awareness and highlighted the perceived superiority, by some researchers, of Western scientific paradigms.

Thirdly, an apology to people of colour issued in October 2021 by the American Psychological Association (APA) acknowledged their role in "promoting, perpetuating, and failing to challenge racism, racial discrimination, and human hierarchy" (APA, 2021, para. 1). The APA acknowledged their failure to lead the discipline of psychology in many ways, including an admission of failing to appropriately support research concerning communities of colour. They further acknowledged a failure to adequately report on and include these research participants, and that Euro-centric research standards had dictated the analysis of data and reporting of results. This approach to research has both perpetuated the invisibility and marginalisation of these individuals' perspectives and led to a paucity of sound research to inform the implementation of psychological practice which can benefit these communities. Importantly, the APA acknowledged that Psychologists had been involved in the development and widespread promotion of psychometric tests and tools which are often used in ways which disadvantage ethnic minorities. It was recognised that Western diagnostic methods and categories do not necessarily reflect the lived experiences of people from minority cultures. In terms of psychology within Aotearoa, this issue cannot be disentangled from the practices of diagnostic and risk assessment (i.e., prediction and classification) and case formulation (i.e., individualised explanations for dysfunctions/behaviour) with Māori and other minorities. In our view, developing a framework to guide practitioners and build the knowledge base for effective bi-cultural practice represents an opportunity for Aotearoa to become a world leader in this area, and to uplift the oranga (wellbeing) of our indigenous and non-indigenous people.

Some elaboration on epistemic primacy is warranted at this point in our discussion. What we are referring to here is the prioritization of one knowledge system over another. In some of the earliest writings on this topic, the French Sociologist, Pierre Bourdieu (1991) coined the term "symbolic violence" to refer to a type of non-physical violence (i.e., the reification of one knowledge system) which manifested in a power differential between social groups. To better explicate the link between knowledge and power, French Philosopher Michel Foucault (1980) used "power/knowledge" to signify that power is constituted through accepted forms of knowledge, scientific understanding, and 'truth'. With reification of certain knowledges comes the marginalization of other forms of knowing. The Indian postcolonial theorist, Gayatri Spivak (1994) used the term "epistemic violence" to expand on Foucault's power/knowledge couplet in her famous essay "Can the Subaltern Speak?". She used the term to characterize a process whereby the knowledge, beliefs, traditions, and language of marginalized indigenous groups were suppressed through the process of colonization. It is within this context that we mobilize the term epistemic primacy in this paper, namely, as a means of signifying a process where Western knowledge systems are deemed superior to Māori ways of knowing. The framework presented here aims to challenge epistemic primacy and offers a way to capitalise of the strengths of indigenous and Western forms of knowledge.

It must be acknowledged here that there are examples of bi-cultural initiatives and cultural competence on the part of Tauiwi practitioners. However, we suggest that a myopic view on what constitutes evidence may result in an over-reliance on well-researched international approaches and an under-investment in learning and implementing indigenous knowledge. We further suggest that if we continue to overlook mātauranga Māori, we will fail to achieve equity and uplift wellbeing for Māori. In particular, there are certain aspects of a person which are at risk of being neglected if we take a purely Western

approach to psychology. Nathan and colleagues (2003) note that:

> "When tikanga Māori processes are applied to Māori individuals certain things happen to their wairua, hinengaro and tinana. What happens has never really been acknowledged within a Pākehā paradigm as a scientifically credible intervention in the psychology of human behaviour" (p. 3).

In line with this idea, a recent Governmental inquiry into mental health and addiction in Aotearoa surveyed the voices of numerous practitioners, service users, their whānau (family), and the general public, and generated a report which called for significant shifts in practice. *He Ara Oranga* called for approaches to Māori mental health which include a "recognition of … the importance of cultural as well as clinical approaches, emphasising ties to whānau, hapū and Iwi" (Government Inquiry into Mental Health and Addiction, 2018, p. 9). Māori participants highlighted the importance of Te Ao Māori for their wellbeing and the shortcomings of the Western model of mental health when it comes to understanding Māori experience. Further, it was suggested by Māori that, as they currently exist, mental health services fall short of an equitable partnership between Māori and the Crown. These findings suggest that, in order to ensure equal access to and outcomes of psychological intervention, psychology in Aotearoa needs to commit to increasing practitioners' knowledge of Te Ao Māori and their competence and confidence to put this into practice.

While, in our experience, Psychologists have certainly displayed a willingness to uplift their cultural competency and practice in a bi-cultural way, there are significant challenges to overcome. As stated above, many Psychologists have had limited exposure to Te Ao Māori throughout their lives and their clinical training. The balance is already skewed towards Western approaches, given the disproportionate degree to which these have been researched, reviewed, and documented. We are not suggesting that these approaches are ineffective, rather highlighting that the research base for indigenous interventions is still in its infancy and not always amenable to standard methods of validation (i.e., quantitative indices of effects size). The prominence of the evidence-based practice (EBP) model within the profession of psychology is undoubtedly a strength, as it ensures that practitioners are making well informed practice-based decisions that are most likely to lead to desired outcomes. The EBP model contains three overlapping circles containing: the best research evidence, practitioner expertise and experience, and client priorities and values, with the context surrounding these three circles and best practice occurring within their intersection (Spring & Neville, 2011). In addition to these core elements of best practice, the ethical principles that govern the profession of psychology require practitioners to develop and display cultural competence when working with diverse cultural groups, including Māori (Code of Ethics Review Group, 2012). These ethical principles and the EBP model have informed the development of the framework, alongside Kaupapa Māori values, qualitative research, and the developers' own experiences attempting to work bi-culturally in this space.

It is acknowledged that there are varied understandings of what bi-cultural practice means, however, for the purpose of this paper we define it as:

> "a complex and multifaceted subject, focused on relationships between indigenous Māori and non-indigenous Pākehā (white New Zealanders), as well as relationships across different Māori groups. It brings together indigenous and non-indigenous knowledge and practices that enhance people's well-being. It is crucially concerned with being culturally responsive and sensitive." (Eketone & Walker, 2015, p. 103)

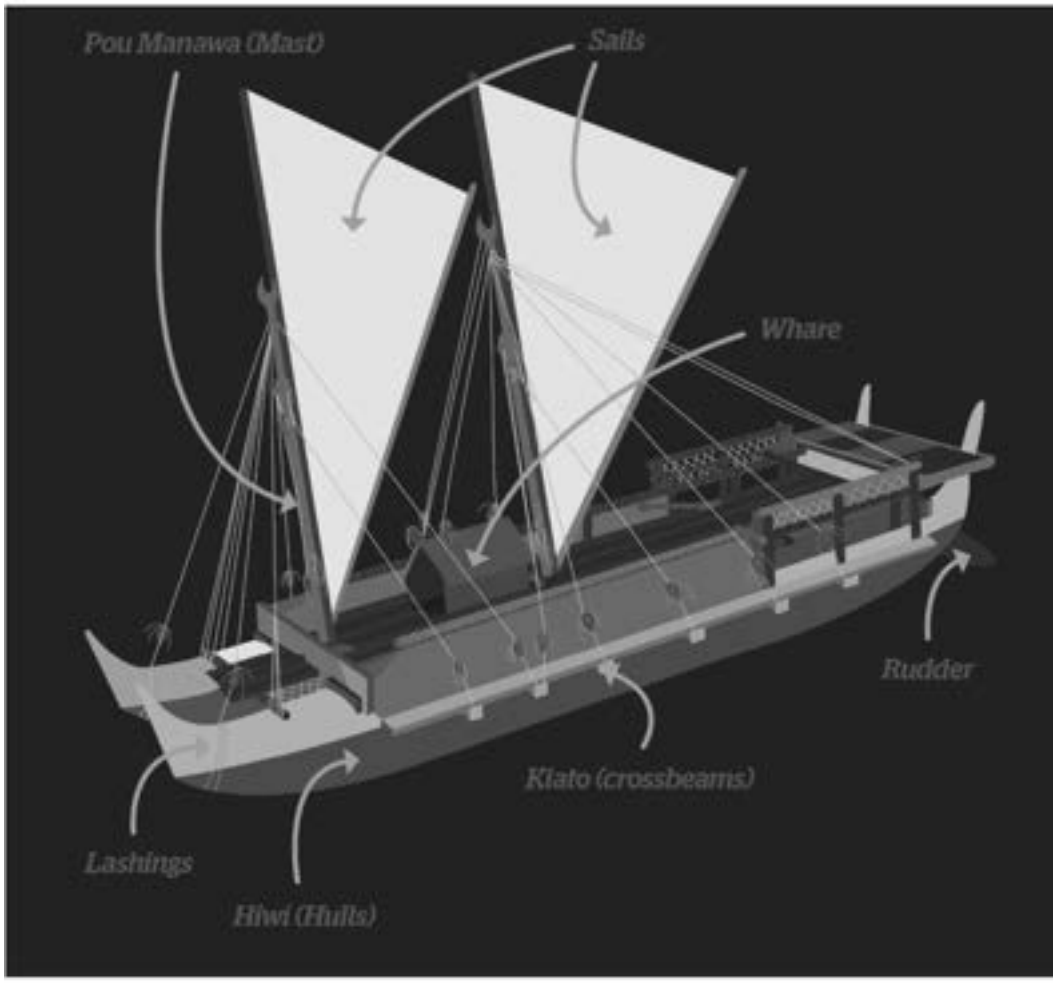
This definition suggests that bi-cultural practice exists within the relationships between practitioners, knowledge systems, and clients (i.e., it involves collaboration), requiring cultural competence (at the individual practitioner level) to effectively weave knowledge together. Cultural competence can be defined as an awareness of one's own cultural background, world view, and sources of bias, paired with knowledge about the history, values, and practices of other relevant cultures, and the skills to put this into practice with members of that culture (Heppner et al., 2012). A requirement of the framework we set out below will be a commitment on behalf of practitioners to develop cultural competence through collaborative practice, self-reflection, supervision, and other educational avenues (e.g., learning Te Reo / language, Aotearoa's history / Te Tiriti o Waitangi, etc.). The framework we present here represents one attempt at bringing together Māori and Tauiwi practitioners, with their specialised expertise and knowledge, to elevate mātauranga Māori alongside Western psychology and support authentic bi-cultural practice.

A Way Forward: Developing a Framework

In line with the issues and suggestions discussed above, a fruitful way forward is to draw equally on the strengths of Western psychology and mātauranga Māori. There have been a number of suggestions put forward in recent years to advance this vision. A relevant model here is Macfarlane and colleagues' (2015) *He Awa Whiria* (the braided rivers). This model aims to shift thinking away from a 'one-stream' paradigm, where dominant or 'mainstream' knowledge is considered universal. The approach taken by He Awa Whiria does not exclude other cultures or worldviews, rather, it provides a platform for them to be woven into any programme or system. Equity in perspectives is necessary according to He Awa Whiria (Macfarlane & Macfarlane, 2019). However, we suggest that this does not mean that both streams will always meet or run parallel and equally strong for a specific task. For example, there may be particular tasks for which one stream is better equipped to provide guidance at any given time. However, equity means that both streams are considered equal in terms of being able to provide valid and useful knowledge for the task at hand. Our framework is informed by this model and to some extent operationalises it.

An important consideration when designing a framework is the risk of misappropriating mātauranga Māori or only using it in a tokenistic way. This can be

Figure 1. Waka Hourua, a double hulled canoe



mitigated through the equal involvement and power of those who hold mātauranga in the design, review, and piloting of initiatives. It can also be achieved through the dual focus on oranga, or Māori conceptions of and indicators of wellbeing, and promoting behavioural change. The framework should empower and support practitioners to consider diverse and, at times, competing sources of evidence and knowledge. To enable bi-cultural practice, organisations will need to create the conditions that support an awareness and understanding of Māori approaches. As discussed above, a potential barrier to truly equitable bi-cultural practice is epistemic primacy, or prioritising certain types of knowledge over others. Instead, the framework aims to support practitioners to adopt a plurality of perspectives, worldviews, and practice frameworks (Strauss-Hughes et al., 2021). This means that practitioners must be willing to fully consider the merits of different perspectives. The framework will guide practitioners to work through tensions between perspectives or sources of evidence when they arise, both within and between persons. A focus on plurality and equity will ensure the framework is able to bring together a range of models, concepts, and knowledge, from Te Ao Māori and Western psychology.

This framework was designed by four practitioners, two Māori and two Tauiwi, with experience and expertise in Western psychology and Te Ao Māori within a Correctional rehabilitation context. While a framework can take many forms, we believe that it should clearly spell out the steps practitioners must take to uplift Te Ao Māori within any particular task, and how they can navigate the challenges which arise. The development and implementation of the framework should not be the final step in our endeavours to embed mātauranga Māori within psychological practice. Foreshadowing the final phases of the framework described below, the evaluation of any initiatives utilising it is paramount. We have seen too many promising strategies and frameworks abandoned due to inadequate investment in follow through and a lack of accountability in terms of measuring outcomes.

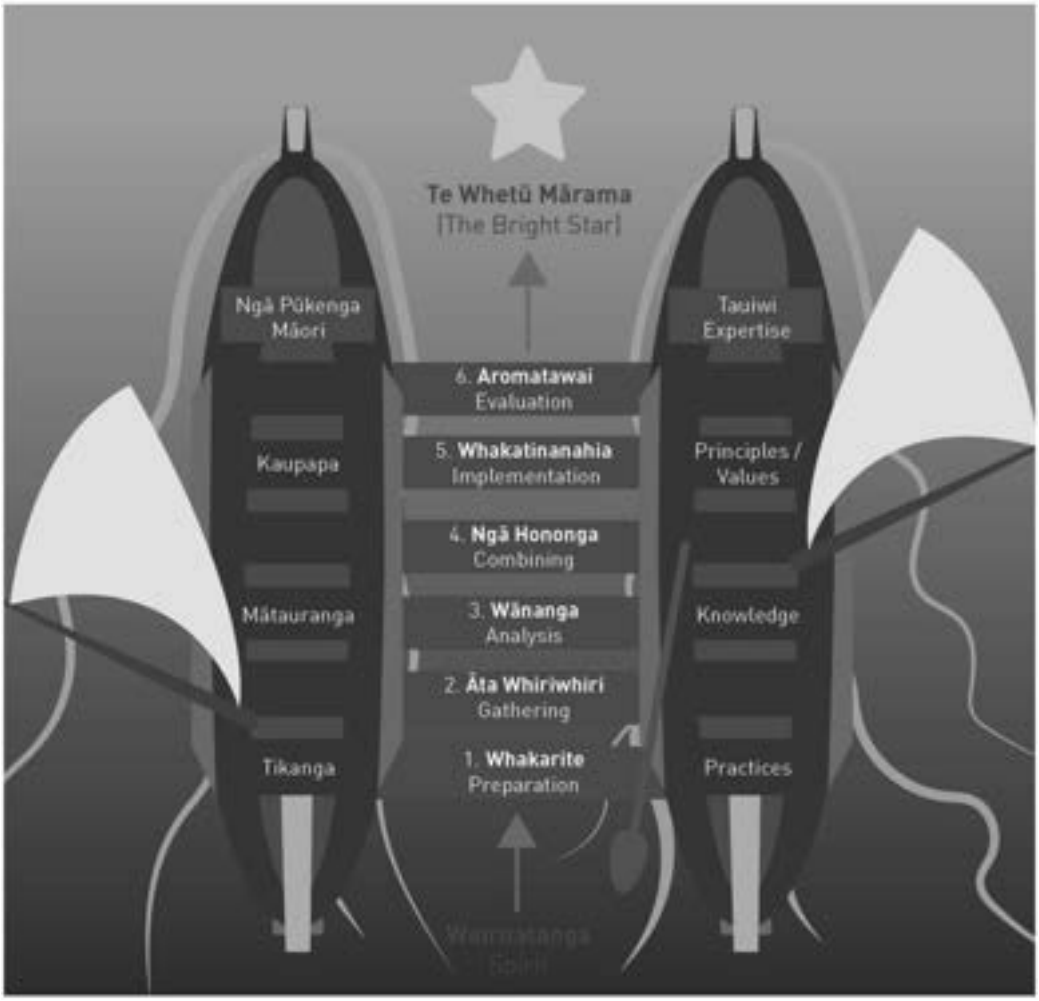
The Framework: Tikanga Takirua

Prior to presenting Tikanga Takirua in its entirety, it is important to outline its aims and scope. Tikanga Takirua does not aim to define or guide bi-cultural practice at the individual level, within practitioners. Rather, it will assist practitioners to work together in a bi-cultural way. It will provide guidance, in terms of an over-arching metaphor and practical steps, which practitioners can use to weave together Māori and Tauiwi perspectives as they navigate any project (e.g., intervention or training design, provision of supervision, working with clients). At the individual practitioner level, it necessitates cultural capability,

including reflective practice (i.e., awareness of personal biases/assumptions) and developing relevant knowledge (i.e., mātauranga) and practical skills (i.e., tikanga). Only when practitioners can fully appreciate the value added by both perspectives, can they identify when additional support/expertise is needed and consider alternative approaches which may previously have been overlooked. The bi-cultural practice promoted through Tikanga Takirua will involve holistic, individualised, and multi-modal approaches, rather than 'one size fits all'. For this reason, it contains guidance to support practitioners to make decisions in an ethical and equitable way, while allowing enough flexibility to adapt to various tasks and constraints. It is intended for use by practitioners who need to combine Māori and Western knowledge, and who have access to ngā pūkenga Māori and Tauiwi expertise, whether this is in the form of clinical or Māori cultural supervision, collaboration with colleagues, or enlisting the expertise of iwi Māori.

In line with a number of recent strategies and initiatives within the public sphere, we have adopted the analogy of a *Waka Hourua* (a double hulled canoe, see figure 1) as the foundation for Tikanga Takirua. The following is based on descriptions by Evans (2015; 2021) and Spiller, Barclay-Kerr, and Panoho (2015). The Waka Hourua represents the two bases of knowledge and expertise (Māori and Tauiwi) working together, it is about connecting cultures and reclaiming knowledge. Te Whetū Mārama (the bright star) represents the over-arching kaupapa values which guide practitioners on their journey towards their intended outcomes (e.g., increasing wellbeing, changing behaviours). The crew represents the team of practitioners who will work together, moving between knowledge bases to achieve these aims. This team are responsible for navigating knowledge streams, and they receive guidance from others along the way, for example, through supervision and leadership. The project leads/captains are the kaitiaki (guardians) responsible for the direction of the project (i.e., the rudder), while the rest of the crew guides navigation through providing expertise. Early on, team members need to identify their levels of expertise (and its limits) and any support they need for the journey. The two hulls represent mātauranga (knowledge) bases; two broad perspectives and the models, approaches, and skills contained within each. Practitioners move between the hulls to gather knowledge from either side. The two masts in the middle of the waka represent supervision, both clinical and cultural/Māori. These conversations guide the direction of the journey through reflective deliberation. The masts must be secure to keep the sails safe, they provide unwavering support, and hold the team when motivation or wairuatanga (spirit) is strong

Figure 2. Six Kīato, crossbeams which represent the six phases of Tikanga Takirua



and when it is lacking. The sails represent the collective motivation or mauri (energy) and will to move forward, they are supported by the masts (i.e., supervision).

The six kīato (cross-beams which connect the hulls) keep the hulls aligned by providing contact points for sharing knowledge and resources. These kīato are planks of connectivity, they attach values and principles to practice and support a holistic approach. The kīato enable practitioners to deepen their practice and enact their values through connecting with both hulls. In Tikanga Takirua these represent six phases of a project or practice-related task. The lashings which connect the kīato to each hull are flexible enough that each can work with the other side. The lashings hold the hulls together through reflection on what binds us together (i.e., shared purpose, values). Everyone is responsible for these, and they need to be attached early in the journey. There is a small whare in the middle of the waka, which represents the space for collaboration, learning, and collective decision-making (i.e., wānanga). The environment (e.g., the ocean, wind, current) is complex and variable, necessitating flexibility and willingness to change the course or return to shore in response to unexpected variables. Practitioners will encounter challenges on this journey and will navigate these together as Māori and Tauiwi, as well as sharing victories.

The six phases of Tikanga Takirua are adapted from a revised model of the five step inquiry process of evidence-based practice in psychology (Prujean et al., 2021). This revised framework aimed to resolve several shortcomings in the standard model, including the lack of a clear target or question to guide inquiry and the neglect of values (Prujean et al., 2021). According to this revised model, a critical first step is to clearly formulate the target or question for inquiry, in our framework this means that we set the intention clearly in the first phase to define the aims of the project and the logic of its particular task (e.g., the programme, training, etc.). This logic then guides the following phases. In terms of values, Tikanga Takirua requires the open communication of one's own values within phase one (through whakawhanaugnatanga) as well as on-going reflection throughout the project.

The name *Tikanga Takirua* was suggested by Rikirangi Gage, CEO of Te Rūnanga o Te Whānau a Apanui (an iwi trust located in the Bay of Plenty) and the third author of this paper, who is also of Te Whanau a Apanui decent. The name reflects the collaboration between two approaches to practice: mātauranga Māori and Western psychology. Tikanga means the correct way to do things and Takirua means two working together, side by side. We believe that Tikanga Takirua represents one way for Māori and Tauiwi within the field of psychology to undertake the core tasks of their role together, in a fair and equitable way. This means that in tasks where collaboration is possible, practitioners who hold expertise in each world can contribute, with both kinds of knowledge and expertise considered equally valid and relevant. It is possible that the framework could be applied to work with individual clients, however, collaboration between practitioners is necessary to ensure that both kinds of expertise are represented appropriately. We have chosen to use both Māori and English terms for all phases of Tikanga Takirua, to reflect the bi-cultural nature of the framework.

Phase 1: Whakarite / Preparation

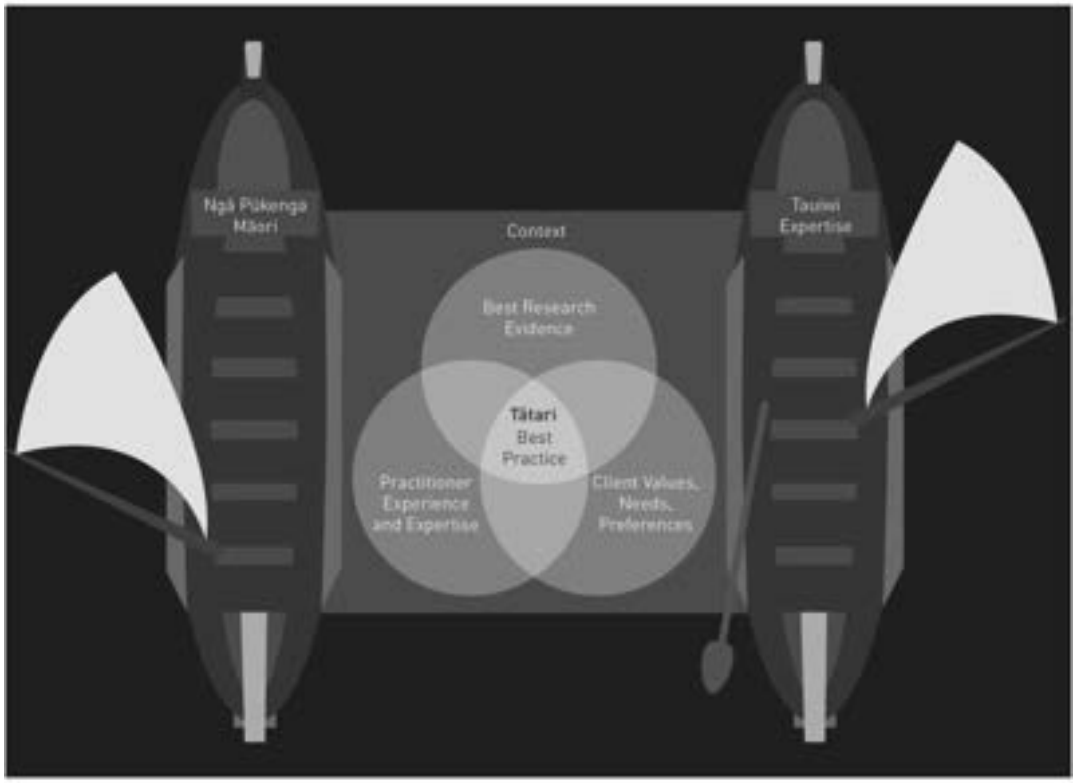
The first phase has two parts, these can be completed concurrently or one after the other, depending on the project. The aim of the first phase is to prepare for the journey (i.e., project) ahead, through both making sure the appropriate team have been identified and that there is a clear direction to move in together.

Whakariterite - considered planning and strategic design. The aims, tasks, and intended outcomes of the project are described in detail in the first phase. The key project tasks will vary, for example, the design of a new rehabilitation programme, assessment process, practitioner training package, or provision of supervision to practitioners. However, the aims and outcomes will always be centred upon the wellbeing of people. This means that throughout the project, practitioners will consider the impacts of the decisions they make on the 'end users'; the intended outcomes will be client-centred. Crucially, this phase includes the development of a logic model, built upon a sound theory of change which "explains the process of how a change will occur; it illustrates the relationships between actions and outcomes and how they can work together to bring about a desired change" (Pennsylvania Coalition Against Rape, 2018, p. 1). Key considerations in this phase include the impact of the current piece of work on clients (e.g., how does it enhance wellbeing?), how this is proposed to occur, and how we will know if we are successful (i.e., what would a strong evaluation look like, what are we measuring?).

Whakawhanaungatanga – coming together as a team. In this phase, key people on the project team are identified and their roles are outlined. Practitioners must understand what is expected of them as a team and as individuals. It is important at this phase that there is explicit partnership (kotahitanga) between Māori and Tauiwi, this needs to be equal across levels (including leadership) and cannot be an afterthought. The concepts of Mana Ōrite (equal/shared power to determine outcomes) and Mana Taurite (co-governance or balance in power at the highest levels of decision-making and resource allocation) are crucial within this phase. It is important to note that this process of shared power extends well beyond the initial step of co-design, to critical later steps, including implementation and evaluation. For example, rehabilitation programmes often have face validity through the inclusion of Māori concepts, but their evaluation methodology often derives from a purely Western perspective (i.e., pre-post significance testing, programme effect sizes, etc.). Mana Ōrite highlights the importance of partnership from inception to completion of the project, whereas Mana Taurite highlights the need for leaders, both Māori and Tauiwi, to be empowered equally throughout the phases of *Tikanga Takirua*.

Once the team is formed, they need to spend time reflecting on the aims of the project (and the plan) and connecting with a shared purpose. This may include developing a kawa (set of guidelines to work together) and planning for how they will ensure respect, trust, and equal ability to influence outcomes. Individuals may share their

Figure 3. Āta Whiriwhiri, gathering knowledge, guided by the principles of evidence-based practice



reasons for engaging in this project, cultural background, values, expertise, and any biases or limitations in knowledge. Key considerations include what role each person will take on the journey (i.e., tasks and responsibilities), personal strengths and expertise, and gaps in knowledge. Explicitly considering personal and collective values at this phase means that practitioners are less likely to fall into the trap of assuming that their decisions, as well as the evidence and models which they base them on, are value free (Ward & Heffernan, 2017).

Phase 2: Āta Whiriwhiri / Gathering

In the second phase, practitioners with expertise in Psychology and ngā pūkenga Māori gather relevant information from both hulls (i.e., knowledge-bases). It is helpful at this phase to begin with a relatively blank slate, without assumptions about what the end product will look like. This helps to ensure equity of perspectives and broadening of knowledge. The intent is that Te Ao Māori is elevated alongside psychology, rather than being an afterthought or grafted on to existing processes. During this phase practitioners will make informed and transparent decisions about what knowledge or expertise from each hull is relevant, by collectively considering the key aims and the logic model. In addition, the gathering of relevant information is guided by the evidence-based practice model.

In the field of psychology, evidence-based practice refers to "the integration of the best available research with clinical expertise in the context of patient characteristics, culture, and preferences" (APA Presidential Task Force, 2006, p. 271). It is important to remember that, rather than adopting an 'evidence hierarchy' perspective, grounded in Western epistemic values such as objectivity, consistency, etc., "what constitutes best evidence will vary according to the specific inquiry task, as will the kind of knowledge required" (Prujean et al., 2021, p. 2). International research undoubtedly forms part of the picture, but on its own is not enough. There is a growing evidence-base for kaupapa Māori initiatives and interventions, and this evidence base will grow further if we are able to appropriately implement and evaluate Māori approaches according to Māori and Western methodologies (e.g., Martel et al., 2021). As above, evidence is considered broadly, for example, treatment outcome studies, psychological theories, qualitative studies, smaller scale case studies, and mātauranga Māori are all considered relevant sources of information. The question is whether and how they fit with the task at hand, the logic model can guide these conversations and decisions. We must also consider the values and perspectives of the client population and the expertise of practitioners, and then look to the available evidence and knowledge concerning what works to bring about the changes we want to see. This phase is complete when all team members are satisfied that enough relevant information has been gathered. Once again, ensuring that there is a balance in power and decision-making between Māori and Tauiwi practitioners.

Phase 3: Wānanga / Analysis

In the third phase, practitioners come together in wānanga to develop a shared understanding of relevant knowledge. The first aim of this phase is mutual understanding and learning. This can occur through use of

examples, metaphor, gaining an experiential or applied understanding of unfamiliar concepts (rather than academic learning), and avoiding basic translation and one-to-one thinking (i.e., assimilation or misappropriation) about concepts (Togni, 2017). Once this is achieved, practitioners collectively make decisions about what knowledge to utilise within the project. For example, considering what is the most relevant, where there may be overlap, redundancy, or tensions between models. These decisions involve evaluating the knowledge from both Māori and Tauiwi perspectives, suspending biases, and seeking to understand through stripping concepts back to their basic components (i.e., conceptual analysis). It is important to return to the logic and consider which knowledge best meets the project aims, but it is also important to ensure that both Māori and Tauiwi practitioners are empowered to make these decisions. This phase ends with a plan for which Māori and Western psychological concepts and models will be used together in the project.

Phase 4: Ngā Hononga / Combining

The fourth phase requires practitioners to collaborate and combine (i.e., weave together) Māori and Tauiwi models or concepts which will be used to meet the aims of the project. It is critical here that there is a mutual understanding of the models/concepts to be used, so all practitioners understand what each has to offer the project (in terms of its logic) and how it relates to other models or concepts. Learning can continue at this phase, to deepen practitioner understanding of new approaches. It is important to allow models and concepts to sit alongside each other, rather than trying to reduce one to the other. It is also important to consider whether they fit together in a logical order and if similar or complementary concepts can be used together to reduce repetition. Making these decisions will mean returning to the logic and considering how the different approaches work together to create change. It is important to note that this phase may involve multiple designs and revisions, practitioners must not be afraid to return to earlier phases if needed (e.g., reviewing the kawa, the logic, considering new knowledge from either hull where needed). This phase is complete when the project design has occurred, the core tasks of the plan are complete and ready to implement.

Phase 5: Whakatinanahia / Implementation

The fifth phase involves piloting and rolling out the project. The team need to consider how the product (e.g., intervention, training) will be received and how best to support its integration within existing practice. For example, considering what level of training, supervision, and on-going support is needed to ensure that it is delivered as intended, whether there are any tensions or inconsistencies with current practice or processes. The team also need to ensure that any monitoring mechanisms and outcome measures are in place to capture important information about how the project is received and implemented. This phase also involves embedding any monitoring measures that are necessary for the final phase.

Phase 6: Aro Matawai / Evaluation

The sixth and final phase is on-going, from the time of roll out. Depending on the project, the evaluation may continue for as long as the product is in use. The aim of this phase is to gather information relevant for ensuring fidelity, enable on-going improvements or refinements, respond to implementation issues (i.e., formative and process evaluations), and justify continued use in practice through achieving its intended outcomes (i.e., impact evaluation). This might involve gathering feedback from the project team, people who are delivering/using the product, and/or clients who engage with it. It is important to use the logic again here to determine intended outcomes and information relevant for tracking this over time. A strong commitment to evaluation will mean that teams are building up their own knowledge base and learnings for future projects, rather than reinventing the wheel or relying on international evidence alone.

It is critical to be clear about what the intended outcomes are at the outset and be realistic about the sorts of benefits which may be realised in the short and longer term. This requires attention to the mechanisms which underpin change and the relationships between these. For example, the team might propose that the product will support psychologists to deliver treatment more bi-culturally, elevating the use of mātauranga Māori within interventions. This may be a short-term outcome which can be evaluated through piloting and on-going feedback from those using the product. Secondly, one might expect that this elevation of mātauranga will result in Māori clients being able to connect with their culture through interaction with practitioners and interventions which authentically understand and represent Te Ao Māori. It will be necessary to design outcome measures that can track progress towards this goal (i.e., experiences, level of engagement measured through attendance/progress) over time. Thirdly, we may expect that if this goal is realised (even partially), then we will see differences in outcomes of interest (i.e., wellbeing indicators, behavioural change).

It is important that these outcomes and the hypothesised mechanisms of change are explicitly articulated and brought together within a coherent and achievable plan for evaluation, which is properly resourced. Further, the methodologies used to evaluate initiatives must be focussed broadly on numerous outcomes of interest and employ mixed methodology which draws from both Western and Kaupapa Māori approaches to research (e.g., Martel et al., 2021). It is inappropriate to evaluate a bi-cultural piece of work solely through Western methodologies. Importantly, the evaluation must be used to further refine the product and respond to the needs of those using it (e.g., clarification, training, resource). Otherwise, there is a risk of expecting unrealistic short-term outcomes and abandoning new initiatives before they have a chance to be embedded in a meaningful way.

Conclusions and future directions

In this paper we have outlined the rationale for and development of a bi-cultural framework for psychological practice, Tikanga Takirua. We briefly explored some of the challenges faced by psychology in Aotearoa and then suggested some ways forward in the form of a preliminary framework. A core issue when implementing Tikanga

Takirua will be the magnitude of the international psychological evidence in comparison with the small, but growing, evidence base surrounding indigenous approaches (e.g., Castell et al., 2018; Chalmers, 2014; Grace, 2019; Nathan et al., 2003; Shephard, 2018; Soto, 2018; Walton & Martin, 2021). We argue that the prioritisation of empirical/statistical evidence over indigenous perspectives has led to the transportation of Western psychological interventions into a context where they are not, on their own, fit for purpose. Practitioners need a way to navigate the challenging task of weaving together Māori and Western psychological perspectives. We believe that there is currently a significant opportunity for the field of psychology in Aotearoa to become world leading in terms of bi-cultural practice, this is exciting, and we hope that we, as a discipline, can rise to the challenge.

We also hope that Tikanga Takirua signals the beginnings of a more equitable representation of Māori knowledge and participation in the field of psychology. We are stronger together and the time is now opportune to capitalise on the strengths of these two knowledge bases. It is our intention to further refine the framework in reponse to feedback and following a pilot project. We realise that if Tikanga Takirua is to achieve its aim, to support collaborative bi-cultural practice which uplifts mātauranga Māori alongside psychology, practitioners will need additional support. There will likely be issues relating to time and resource, but we strongly believe that this is a promising way forward, and we welcome practitioners from a range of professional roles to draw from Tikanga Takirua in their work.

To conclude, the following whakatauki illustrates the analogy of the waka and the importance of aiming high and choosing a course of action which will benefit all people.

"Kimihia e te iwi te ara o te tikanga kia noho i te ao nei no reira. Me herea to waka ki nga whetu o te rangi kaua ki ngā toke o te whenua"

"Seek an appropriate path so everyone will benefit in this world. Set your goals high and attach your waka to the stars, not with the worms on the ground".
(Rikirangi Gage, 2010)

This whakatauki speaks to the lofty aims of Tikanga Takirua and the challenges which lay ahead for Māori and Tauiwi practitioners. In our opinion, if we want to achieve real change and realise the long-held goal to uplift oranga for Māori and Tauiwi, we need to aim high.

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Mental Health and Wellbeing for Young People from Intersectional Identity Groups: Inequity for Māori, Pacific, Rainbow Young People, and those with a Disabling Condition

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'Intersectionality' describes the converging effects of ethnicity, gender, sexuality, disability, and other social group characteristics that influence life experiences. We draw on a representative study of year 9-13 students in Tai Tokerau, Tāmaki Makaurau, and Waikato (Youth19) to explore differences in mental health and wellbeing outcomes for young people from a selection of intersectional identities (Māori, Pasifika, Rainbow, and young people with a Disabling Condition). We found a pervasive pattern of inequity for young people who have intersectional identities compared to those from the majority groups (i.e. Pākehā, non-disabled, cis-heterosexual youth). Intersectional youth had higher levels of inequity and faced a greater array of inequities. There was evidence of an additive effect for some indicators. Thematic analysis of open-text survey responses found the need for positive inclusive environments, and support for all young people, including those at the intersections of identity. Drawing on the findings, we offered several systems-level policy recommendations, including strategies to improve inclusiveness and reduce discrimination.

Keywords: *Intersectionality, Inequity, Māori, Pacific, Rangatahi, Rainbow, Takatāpui, Disability, Youth, Wellbeing, Mental health, Discrimination*

INTRODUCTION

Aotearoa New Zealand has an ethno-culturally diverse population of young people, foregrounded by a foundation of biculturalism, in the context of Te Tiriti o Waitangi (Came et al., 2021). Within the youth population, there are groups who are often minoritised, including Indigenous Māori and other minority groups including Pasifika, Rainbow[1] communities, and those with disabilities or chronic conditions (Clark et al., 2018; Fleming, Tiatia-Seath, Peiris-John et al., 2020; Peiris-John et al., 2016). This ethnic, cultural, sexual and ability diversity leads to unique strengths and challenges for young people. Despite the improvements in youth health and wellbeing in recent decades, significant challenges and inequalities remain for many specific identity groups (Ball, 2019; Ball et al., 2019; Clark et al., 2013; Clark et al., 2018; Clark et al., 2020; Fleming, Ball, Peiris-John, et al., 2020; Fleming, Peiris-John, Crengle et al., 2020; Fleming, Tiatia-Seath, Greaves et al., 2020). For instance, from 2012 to 2019, the mental distress of Māori and Pacific young people has increased markedly, while inequities in mental health have increased for Rainbow and disabled young people (Clark et al., 2020; Fleming, Tiatia-Seath, Peiris-John, et al., 2020).

Here we investigate the health and wellbeing of secondary school students from the following intersecting identity groups (hereafter 'intersectional') using data from the Youth19 Survey: 1) Rainbow rangatahi Māori; 2) Rangatahi Māori with a Disabling Condition; 3) Pacific Rainbow young people; 4) Pacific young people with a Disabling Condition; and 5) Rainbow young people with a Disabling Condition. We then present open-text responses from these groups on the issues that they are facing and what would improve their lives.

Intersectionality

Intersectionality is an analytical framework that emerged from critical race studies. It was originally conceptualised to examine Black women's experiences of oppression that were both racial and gendered (Crenshaw, 1991, 1993). The concept of 'intersectionality' suggests that an individual's multiple identities (e.g., their class, gender, ethnicity, and sexuality) can have converging effects that contribute to marginalisation, social identity, and wellbeing (Seng et al., 2012). Instead of focusing on

[1] In this paper we use the term "Rainbow" to refer to young people with Lesbian, Gay, Bisexual, Transgender, Takataapui identities and other sexuality and gender identities, as well as those who have a pattern of sexual attractions reflecting such sexualities.

a single social position, an intersectional approach seeks to understand how people with multiple identities may often face complex and multilayered inequality (Huang et al., 2020). An intersectional approach has been used to explore the effects of multiple aspects of identity on health and wellbeing outcomes (Seng et al., 2012). Such an approach helps to illuminate the ways in which members of multiple marginalised groups are at increased risk for some negative experiences, and how members of multiple privileged groups may have a greater chance of positive outcomes (Settles & Buchanan, 2014).

Intersectionality frameworks also help identify, with more nuance, the obstacles people may encounter when accessing services and resources. When providing services to minorities, agencies tend to tailor their practices to one specific group and to its members' needs (Hankivsky et al., 2014). Such an approach is myopic and often fails to comprehend the complexities of the needs of people with intersectional identities. Thus, those with intersectional identities are often unable to access support in a single space, and are as a result often excluded (Roberston, 2020). In summary, intersectional analysis examines the impacts of multiple aspects of identities on health and wellbeing outcomes. It can explain why individuals belonging to multiple marginalised groups may experience negative experiences differently, sometimes additively and at other times more complexly, as a result of belonging to multiple marginalised groups.

There is little research on intersectionality among young people in Aotearoa. While there are studies that include young people with more than one minority identity (Chiang et al., 2019; Le Va, 2020; Lewycka et al., 2020; New Zealand Human Rights Commission, 2020; Roberston, 2020; Scoop, 2020; Veale et al., 2019), very few of them explicitly mention intersectionality or examine wellbeing for multiple intersectional groups. Our research redresses this imbalance by exploring the associations of key intersectional identity groups with diverse health and wellbeing outcomes, including consideration of compounded health ('double-jeopardy') and wellbeing inequities.

The 'double jeopardy' hypothesis explains how the addition of further minority group membership may present multiple challenges (Grollman, 2014; Das-Munshi, 2016). According to this hypothesis, those belonging to additional marginalised groups could experience further stress over-and-above the stress experienced by single minority group members (Ferraro & Farmer, 1996; Hayes et al., 2011). More recently, it has been suggested that the 'multiply disadvantaged' status of holding more than one stigmatised identity is worse for health than experiencing single or no disadvantages (Grollman, 2014; Das-Munshi, 2016).

According to another hypothesis, members of multiple minority groups may also develop coping skills, coping strategies, and resistance to oppression (Penehira et al., 2014; Chiang et al., 2019; Jaspal & Williamson, 2017; Li et al., 2017). Put another way, intersectionality can mean that rather than a layering or compounding of the effects of marginalisation, the unique intersections of identities produce exceptional outcomes (Penehira et al., 2014). There are times when the intersection of multiple marginalised identities may also offer strengths and opportunities, including the ability to resist (Penehira et al., 2014), and to belong to multiple communities (Chiang et al., 2019; Jaspal & Williamson, 2017; Li et al., 2017). According to Chiang (2019), for instance, Asian young people who are attracted to same-sex and both-sex often face heterosexism in family settings, and racism in queer communities, which makes it hard for their whole identities to be accepted. In parallel with that, they belong to both families and wider ethnic communities, each of which can provide them with support in a variety of ways, as well as meet their needs for belonging and inclusion.

Overview, Aims, and Hypotheses

In this paper, first, we explore the wellbeing indicators of secondary school students with the following identities using data from the Youth19 Rangatahi Smart Survey: 1) Rainbow rangatahi Māori; 2) Rangatahi Māori with a Disabling Condition; 3) Pacific Rainbow young people; 4) Pacific young people with a Disabling Condition; and 5) Rainbow young people with a Disabling Condition, compared to those from single and double "majority" groups as the reference group. We then employed an intersectional framework to investigate how membership in multiple marginalised groups is associated with health and wellbeing outcomes. Finally, we delved into what young people from these specific intersectionality groups said would make Aotearoa a better place for them. To do this, we drew on text responses to two open questions in the Youth19 survey which asked young people what they thought were the biggest problems facing young people, and what could be changed to better support young people.

METHOD

Sampling and Procedure

The Youth19 survey is the latest in the Youth2000 Series surveys. Ethical approval was granted by The University of Auckland Human Subjects Ethics Committee (application #022244). In each participating school, the principal or board of trustees provided consent, parents/caregivers were informed and were able to have their child excluded, and the randomly-selected students then provided informed consent. The sample included the 242 schools in the Tai Tokerau, Auckland, and Waikato regions with students in year 9 or above. Kura kaupapa Māori (schools that operate within a Māori philosophy/in te reo Māori) were sampled separately. The final sample comprised 45 mainstream schools (56% response rate for schools; 60% response rate for students, *n*=7,374) and four kura (67% for kura, 71% for students, *n*=347). Sample weights were calculated to accurately estimate parameters of the surveyed population using the sampled data; first, as inverse probability weights to adjust for the unequal probability of each individual being invited to participate. The survey was conducted on mobile tablets using Qualtrics. All materials were available in English and te reo Māori, and were available in a read-aloud format. All survey responses were anonymous, and all questions were optional. Participants could also opt in to receive digital help information and safety information was presented around sensitive topics. Further

Table 1. Prevalence with 95% confidence intervals across variables for the analyses for Rainbow Rangatahi Māori and Rainbow Pacific Young People.

Variable Name	Māori, Rainbow % (95% CIs)	Māori, Non-Rainbow % (95% CIs)	Pākehā, Rainbow % (95% CIs)	Pākehā, Non-Rainbow % (95% CIs)	Pacific, Rainbow % (95% CIs)	Pacific, Non-Rainbow % (95% CIs)
Family acceptance	**76.3 (68.1, 84.5)**	**86.4 (84.1, 88.7)**	**78.8 (72.7, 84.9)**	93.2 (92.1, 94.3)	**70.2 (59.5, 80.8)**	**89.2 (87.1, 91.2)**
Family close	**79.3 (71.5, 87.1)**	88.3 (86.2, 90.4)	**74.5 (67.7, 81.2)**	88.6 (87.2, 90.0)	**75.8 (65.8, 85.7)**	90.3 (88.2, 92.3)
Safe at home	93.9 (89.0, 98.9)	98.3 (97.4, 99.2)	**96.4 (93.9, 98.9)**	99.3 (99.0, 99.7)	93.4 (88.0, 98.9)	98.9 (98.3, 99.5)
Housing instability	**25.5 (17.2, 33.7)**	**16.7 (14.3, 19.2)**	9.6 (4.9, 14.3)	4.4 (3.5, 5.3)	**23.0 (13.4, 32.6)**	**20.0 (17.4, 22.7)**
Food insecurity	**50.0 (40.4, 59.7)**	**39.0 (35.8, 42.3)**	20.5 (14.5, 26.5)	16.1 (14.4, 17.8)	**42.1 (30.5, 53.6)**	**48.7 (45.2, 52.2)**
Part of school	**71.5 (63.2, 79.9)**	85.0 (82.7, 87.4)	**78.3 (72.8, 83.8)**	86.1 (84.6, 87.5)	85.0 (77.2, 92.8)	87.5 (85.2, 89.8)
Teacher expectations	94.4 (90.2, 98.6)	94.9 (93.5, 96.3)	**89.8 (84.4, 95.2)**	96.9 (96.2, 97.6)	92.7 (86.5, 99.0)	96.9 (95.7, 98.1)
Safe at school	**69.3 (60.8, 77.9)**	**85.2 (83.0, 87.4)**	**78.3 (72.2, 84.4)**	89.1 (87.7, 90.6)	**76.2 (66.3, 86.1)**	**85.4 (83.0, 87.7)**
Positive future	**48.0 (37.5, 58.5)**	**67.7 (64.2, 71.1)**	**50.2 (42.1, 58.3)**	74.7 (72.8, 76.7)	**52.1 (38.1, 66.0)**	**67.1 (63.6, 70.7)**
Volunteering	48.6 (37.8, 59.4)	57.4 (54.0, 60.9)	54.5 (47.3, 61.6)	53.0 (50.8, 55.2)	58.1 (46.2, 70.1)	57.1 (53.6, 60.7)
Safe in community	**86.6 (79.9, 93.4)**	92.5 (90.5, 94.5)	91.7 (87.4, 96.0)	95.4 (94.5, 96.3)	91.5 (85.2, 97.7)	94.1 (92.4, 95.8)
Talk with friend	78.7 (71.2, 86.2)	82.1 (79.7, 84.6)	86.4 (82.1, 90.7)	85.9 (84.4, 87.5)	90.6 (85.3, 96.0)	83.2 (80.6, 85.7)
Friend supports	**76.9 (69.2, 84.7)**	90.5 (88.5, 92.4)	77.0 (70.8, 83.1)	89.6 (88.2, 91.0)	84.1 (75.9, 92.3)	90.1 (87.9, 92.2)
Accessed healthcare	73.0 (64.6, 81.4)	**76.8 (74.0, 79.5)**	79.8 (73.1, 86.5)	81.5 (79.8, 83.2)	69.6 (57.6, 81.6)	**72.7 (69.7, 75.8)**
Forgone healthcare	**32.5 (23.6, 41.4)**	**25.9 (23.0, 28.8)**	**27.8 (20.9, 34.8)**	15.2 (13.6, 16.8)	**39.4 (26.3, 52.4)**	**25.6 (22.6, 28.5)**
Health discrimination	**9.4 (4.7, 14.2)**	**6.5 (5.0, 7.9)**	3.1 (1.5, 4.7)	2.8 (2.1, 3.5)	**15.1 (6.2, 24.0)**	**7.9 (6.1, 9.7)**
Cigarette use	**16.6 (9.9, 23.4)**	**15.0 (12.6, 17.3)**	**16.2 (9.5, 23.0)**	7.7 (6.6, 8.7)	**20.1 (11.4, 28.8)**	10.8 (8.8, 12.8)
Binge drinking	27.6 (20.7, 34.5)	**29.0 (26.4, 31.6)**	20.6 (18.7, 22.5)	23.3 (21.7, 24.8)	18.7 (12.5, 24.9)	18.7 (16.7, 20.7)
Marijuana use	**33.0 (24.2, 41.8)**	**25.2 (22.5, 27.8)**	19.3 (13.6, 25.0)	16.4 (14.9, 17.9)	24.4 (13.4, 35.3)	15.3 (13.2, 17.5)
Had sex	**36.0 (27.5, 44.5)**	**29.1 (26.5, 31.7)**	19.7 (16.2, 23.2)	19.2 (17.8, 20.7)	**35.5 (25.4, 45.7)**	**21.3 (18.9, 23.7)**
Condom use	**29.1 (16.5, 41.8)**	35.3 (28.4, 42.1)	45.0 (26.9, 63.1)	48.1 (41.9, 54.4)	**24.6 (8.5, 40.7)**	**28.3 (20.7, 36.0)**
Contraception use	**27.1 (12.7, 41.5)**	**39.4 (32.7, 46.1)**	53.1 (34.8, 71.3)	59.6 (53.4, 65.8)	**21.5 (4.7, 38.3)**	**31.1 (23.5, 38.6)**
Good wellbeing	**42.0 (32.8, 51.2)**	70.5 (67.6, 73.4)	**37.5 (30.3, 44.6)**	73.3 (71.3, 75.3)	**52.1 (40.3, 63.9)**	76.4 (73.7, 79.2)
Depressive symptoms	**53.3 (43.8, 62.8)**	**26.9 (24.1, 29.8)**	**48.9 (41.0, 56.9)**	18.1 (16.4, 19.9)	**46.7 (35.0, 58.5)**	**24.2 (21.3, 27.1)**
Suicide thoughts	**45.7 (36.4, 55.0)**	**23.3 (20.5, 26.1)**	**44.9 (37.0, 52.9)**	15.4 (13.8, 17.1)	**41.8 (28.8, 54.7)**	**24.3 (21.4, 27.2)**

Note: Prevalence estimates adjusted for survey design and for age and gender. Values in bold indicate where the group's CIs do not overlap with those of the double majority group. For space considerations we report the estimates for Pākehā Rainbow and Pākehā Non-Rainbow for the Rangatahi Māori analyses, full original % and CIs for the Pākehā groups in the Pacific analysis are presented in Table S3, SOM.

information on the survey can be found in Fleming Peiris-John, Crengle, et al. 2020).

Measures

The Youth19 survey comprised 285 questions across 11 key areas. From these, we selected key health and wellbeing indicators based on local and international literature. The full measures are presented in the Supplementary Online Materials (SOM) for this paper (Table S1; see also Fleming Peiris-John, Crengle, et al. 2020). Wellbeing was measured using the World Health Organization Well-being Index (WHO-5; WHO, 1998). Good wellbeing was indicated by a score of 13 or more. Depressive symptoms were measured using the Short Form of the Reynolds Adolescent Depression Scale (RADS-SF). Scoring over the cut-off on this scale indicates 'clinically significant symptoms of depression'. Additionally, the survey included two open-text questions: 'What do you think are the biggest problems for young people today?' and 'What do you think should be changed to support young people in New Zealand better?' Responses were analysed by using a general inductive approach (Thomas, 2006). For coding, we followed the 5-step process which included: 1) data cleaning, 2) close reading of texts, 3) developing categories, 4) reviewing the overlapping codes and uncoded text, and 5) revision and refinement of categories (see Thomas, 2006).

Participants

We used four identities for our intersectionality analysis: Indigenous Māori ethnicity, Pacific ethnicity, those with a Disabling Condition, and a Rainbow categorisation. We constructed five groups: (1) 154 Rainbow Rangatahi Māori (1.9% of the sample); (2) 435 Rangatahi Māori with a Disabling Condition (5.5%); (3) 103 Pacific Rainbow young people (1.3%); (4) 293 Pacific young people with a Disabling Condition (3.8%); (5) 333 Rainbow young people with a Disabling Condition (4.3%; see Table S2, SOM).[2]

Ethnicity. Participants who identified Māori as one of their ethnic groups were included as Māori (*n*=1,528). We used the New Zealand census ethnicity prioritization method for allocating students with multiple ethnicities to one ethnic group, meaning those who identified as both Māori and Pacific were included in the Māori category. Those who identified a Pacific ethnicity (n=945), but not also as Māori, were included as Pacific (e.g., Samoan, Tongan, Niuean). We used Pākehā young people as a reference group (*n*=3,070). The results for intersectional

[2] As a note, we were unable to examine intersectionality across three or more identity groups due to sample size. However, a number of students identified with three groups: Māori or Pacific and Rainbow with a Disabling Condition (*n*=95, 1.2%); Māori and Pacific and Rainbow (*n*=23, 0.3%); Māori and Pacific with a Disabling Condition (*n*=70, 3.3%). Nine participants identified with all four identities.

Asian young people will be reported elsewhere (see Peiris-John et al., 2022)[3].

Rainbow. Participants who self-identified with a broad range of sexual and gender diversities were included (*n*=998): (1) transgender/gender diverse students (*n*=123; e.g., those who reported being trans, nonbinary, Queen, fa'afafine, whakawahine, tangata ira tane, genderfluid, or genderqueer); and (2) students with Rainbow sexualities (*n*=875), defined as those with attraction to either the same sex or both sexes, and/or who identified as takatāpui (a te reo Māori term for those with diverse sexual/gender identities), lesbian, gay, bisexual, etc.

Young people with a Disabling Condition. Participants who identified that they have a disability, chronic condition or long term pain which impacts on their day-to-day functioning were categorised as having a 'Disabling Condition'. We started with those who reported: long-term (>six months) disabilities (e.g., sensory impaired hearing, visual impairment, in a wheelchair, learning difficulties; *n*=652); chronic pain including 'headaches, tummy pain, arms or leg pain' (*n*=1,720); or a 'long term' (>six months) chronic condition (such as 'asthma, diabetes, depression'; *n*=1,734). We narrowed this group to those whose condition(s) impacts on their day-to-day functioning (*n*=1,854; 24%). This a developmentally appropriate and inclusive definition which refers to disability as a limitation in activity and participation (see the World Health Organization International Classification of Functioning, Disability and Health framework; Peiris-John et al., 2016).

RESULTS

Intersectional Identity Groups

For each binary outcome, a prevalence and 95% confidence interval was calculated for each of the groups with a double minority identity. Comparisons of the prevalence of each outcome were made between participants belonging to one minority group (e.g., Pacific and non-Rainbow, or Pākehā (those of European descent) and Rainbow) and those belonging to both minority groups (e.g., Pacific *and* Rainbow); we present these alongside those from the double 'majority' groups (e.g. Pākehā and non-Rainbow (i.e., cisgender/heterosexual)). We used a binomial generalised linear model with an identity link function to adjust for covariates. The model estimates prevalence (or risk) differences between groups while allowing for the inclusion of covariates (sex and age). The results of the separate analyses for the Rainbow Māori and Pacific groups are presented in Table 1, and for the Māori, Pacific, and Rainbow groups with a Disabling Condition in Table 2.

Rainbow Rangatahi Māori. When compared to those who were Rainbow and Pākehā, this group experienced higher economic insecurity on both the food insecurity and housing insecurity indicator. Rainbow rangatahi Māori also reported higher health discrimination, alongside greater challenges across mental and physical health. One set of results compared Rainbow rangatahi Māori to Māori who did not have a Rainbow identity. In these analyses they also reported poorer mental health, but additionally, less positive hope for their future. There were again socioeconomic differences with Rainbow Māori reporting greater housing and food insecurity. They also reported worse school environments, and more discrimination. In sum, Rainbow rangatahi Māori faced major inequities when analyses compared their outcomes to the most advantaged group (Pākehā, non-Rainbow) and, when compared to those who shared a single identity, inequity across a greater range of indicators.

Rangatahi Māori with a Disabling Condition. Compared to Māori without disabilities/chronic conditions, rangatahi Māori with a Disabling Condition experienced lower scores across family, school and community environments indicators. They also had considerably poorer mental health, greater use of cigarettes and marijuana, higher socioeconomic challenges, were more likely to have been unable to access the healthcare they needed in the previous 12 months (i.e., forgone healthcare) and had experienced more ethnic discrimination by health providers compared to Māori without disabilities/chronic conditions. Compared to Pākehā participants with a Disabling Condition, they had lower socio-economic status, and experienced more racism, used cigarettes and marijuana more often, and were more likely to report thoughts of suicide. Overall, in comparison to Pākehā with no Disabling Condition (the most advantaged group), rangatahi Māori with a Disabling Condition faced major inequities, in addition to a greater and higher proportion of inequities than those who shared one identity.

Pacific Rainbow Young People. The Pacific Rainbow group faced increased challenges relative to the Pākehā Rainbow comparison group across some indicators, including on experience of discrimination when accessing healthcare, food security, and feeling part of school. In comparison to Pacific non-Rainbow young people, they also faced greater challenges across multiple health and family indicators. Across the results, Pacific Rainbow young people faced major inequities compared to the most advantaged group (Pākehā, non-Rainbow) and as was the case in other analyses, they faced a greater range of inequities when compared to those who hold just one of their minority identifies (that is, Pacific non-Rainbow or Pākehā Rainbow participants).

Pacific Young People with a Disabling Condition. Pacific youth with a Disabling Condition felt less safe at school and had poorer mental health than Pacific participants without a Disabling Condition. They were also more likely to forgo the healthcare they needed. Compared with Pākehā with a Disabling Condition, the Pacific group experienced greater socioeconomic challenges, namely, housing and food insecurity, and they were also more likely to have experienced ethnicity-based discrimination from their healthcare provider or to have forgone healthcare. However, when compared to their Pākehā counterparts, Pacific participants with a Disabling

[3] The Youth19 survey is a large, collaborative project. Other researchers in the team explored these groups in more detail in Peiris-John et al. (2022). Only 389 students identified with a Middle Eastern, Latin American, or African ethnicity, and given the sample size and diversity of this group we did not include them in these analyses.

Table 2. Prevalence with 95% confidence intervals across variables for the analyses for rangatahi Māori with a Disabling Condition, Pacific young people with Disabling Condition, and Rainbow with a Disabling Condition.

Variable Name	Māori, Disabling Condition % (95% CIs)	Māori, No Disabling Condition % (95% CIs)	Pākehā, Disabling Condition % (95% CIs)	Pākehā, No Disabling Condition % (95% CIs)	Pacific, Disabling Condition % (95% CIs)	Pacific, No Disabling Condition % (95% CIs)	Rainbow, Disabling Condition % (95% CIs)	Non-Rainbow, Disabling Condition % (95% CIs)	Rainbow, No Disabling Condition % (95% CIs)	Non-Rainbow, No Disabling Condition % (95% CIs)
Family acceptance	75.1 (70.0, 80.2)	89.5 (87.3, 91.8)	85.7 (82.6, 88.7)	93.8 (92.6, 94.9)	81.3 (76.5, 86.1)	89.7 (87.4, 92.0)	67.0 (61.1, 73.0)	82.8 (80.6, 85.0)	76.9 (72.1, 81.6)	90.3 (89.4, 91.3)
Family close	80.3 (75.4, 85.1)	90.4 (88.4, 92.4)	80.9 (77.5, 84.4)	89.3 (87.8, 90.8)	85.4 (80.7, 90.2)	90.3 (88.0, 92.6)	68.3 (62.3, 74.3)	83.1 (81.0, 85.2)	79.2 (75.1, 83.2)	88.0 (87.0, 89.0)
Safe at home	95.4 (92.3, 98.5)	99.1 (98.5, 99.7)	97.1 (95.7, 98.5)	99.5 (99.2, 99.8)	96.5 (94.1, 98.9)	99.1 (98.5, 99.7)	92.5 (88.9, 96.1)	97.8 (96.9, 98.7)	98.2 (96.9, 99.4)	99.4 (99.1, 99.6)
Housing instability	29.3 (24.0, 34.6)	12.9 (10.5, 15.3)	8.8 (6.1, 11.4)	3.7 (2.7, 4.6)	26.3 (20.8, 31.8)	18.4 (15.6, 21.3)	16.8 (12.0, 21.5)	16.2 (14.1, 18.3)	10.7 (7.4, 14.0)	8.4 (7.6, 9.3)
Food Insecurity	50.5 (44.6, 56.5)	36.0 (32.4, 39.5)	23.2 (19.4, 27.0)	14.3 (12.6, 16.0)	54.8 (48.1, 61.4)	46.2 (42.4, 50.1)	31.9 (26.0, 37.9)	35.5 (32.7, 38.3)	26.7 (22.0, 31.4)	23.4 (22.1, 24.8)
Part of school	73.0 (67.8, 78.2)	88.1 (85.9, 90.4)	80.8 (77.7, 83.9)	86.8 (85.2, 88.3)	83.2 (78.6, 87.8)	88.6 (86.1, 91.1)	75.4 (70.4, 80.4)	82.1 (80.0, 84.2)	84.8 (81.4, 88.1)	88.2 (87.2, 89.2)
Teacher expectations	92.6 (89.4, 95.8)	95.7 (94.4, 97.0)	94.6 (92.5, 96.7)	96.7 (95.8, 97.6)	96.3 (94.1, 98.4)	96.7 (95.3, 98.2)	92.0 (88.4, 95.5)	95.4 (94.2, 96.5)	94.4 (91.6, 97.1)	96.9 (96.4, 97.4)
Safe at school	69.5 (64.3, 74.8)	88.5 (86.3, 90.7)	78.5 (74.6, 82.4)	91.4 (90.0, 92.8)	77.1 (72.0, 82.2)	86.8 (84.3, 89.3)	68.6 (62.8, 74.4)	78.9 (76.6, 81.3)	86.4 (83.2, 89.7)	90.0 (89.0, 90.9)
Positive future	56.8 (50.2, 63.3)	69.4 (65.7, 73.1)	59.2 (54.6, 63.8)	76.8 (74.7, 78.8)	61.8 (54.6, 69.0)	67.4 (63.5, 71.3)	43.0 (36.1, 49.9)	60.2 (57.3, 63.2)	58.7 (53.2, 64.2)	71.2 (69.8, 72.7)
Volunteering	60.7 (54.3, 67.1)	54.6 (50.7, 58.5)	55.1 (50.8, 59.5)	52.6 (50.2, 55.0)	61.4 (54.8, 68.1)	55.8 (51.9, 59.8)	54.6 (48.1, 61.2)	57.4 (54.5, 60.3)	54.5 (49.2, 59.8)	52.7 (51.2, 54.3)
Safe in community	89.9 (85.8, 94.0)	92.8 (90.7, 94.9)	94.3 (92.3, 96.3)	95.2 (94.2, 96.2)	90.8 (87.2, 94.4)	94.9 (93.1, 96.7)	90.6 (86.7, 94.5)	93.4 (91.9, 94.8)	93.3 (90.7, 95.8)	95.3 (94.6, 96.0)
Talk with friend	79.0 (74.4, 83.5)	82.9 (80.2, 85.6)	82.0 (78.8, 85.3)	87.2 (85.6, 88.9)	81.8 (77.1, 86.6)	84.3 (81.5, 87.0)	78.8 (74.0, 83.5)	80.1 (77.8, 82.3)	83.1 (79.6, 86.7)	85.3 (84.2, 86.4)
Friend supports	84.1 (79.8, 88.3)	91.2 (89.1, 93.2)	82.4 (78.9, 86.0)	90.3 (88.8, 91.8)	87.6 (83.4, 91.8)	90.3 (87.9, 92.7)	75.1 (69.6, 80.5)	84.9 (82.7, 87.1)	83.5 (79.9, 87.2)	88.5 (87.5, 89.5)
Accessed healthcare	76.3 (71.6, 81.1)	76.4 (73.3, 79.5)	85.7 (82.4, 89.0)	79.9 (77.9, 81.8)	74.1 (68.3, 79.9)	72.1 (68.6, 75.5)	79.6 (73.9, 85.2)	82.6 (80.4, 84.8)	74.2 (69.4, 79.0)	76.2 (75.0, 77.5)

Condition reported better wellbeing. Overall, Pacific

Table 2 (cont'd). Prevalence with 95% confidence intervals across variables for the analyses for rangatahi Māori with a Disabling Condition, Pacific young people with Disabling Condition, and Rainbow with a Disabling Condition.

Variable Name	Māori, Disabling Condition % (95% CIs)	Māori, No Disabling Condition % (95% CIs)	Pākehā, Disabling Condition % (95% CIs)	Pākehā, No Disabling Condition % (95% CIs)	Pacific, Disabling Condition % (95% CIs)	Pacific, No Disabling Condition % (95% CIs)	Rainbow, Disabling Condition % (95% CIs)	Non-Rainbow, Disabling Condition % (95% CIs)	Rainbow, No Disabling Condition % (95% CIs)	Non-Rainbow, No Disabling Condition % (95% CIs)
Forgone healthcare	**45.2 (39.3, 51.0)**	**19.0 (16.2, 21.8)**	**32.0 (27.9, 36.1)**	11.4 (9.9, 12.9)	**43.2 (36.6, 49.7)**	**21.3 (18.2, 24.5)**	**43.5 (36.9, 50.2)**	**37.4 (34.6, 40.2)**	**21.8 (17.4, 26.2)**	14.7 (13.6, 15.8)
Health discrimination	**10.5 (7.3, 13.7)**	**5.1 (3.7, 6.5)**	4.3 (2.9, 5.7)	2.4 (1.8, 3.1)	**11.9 (7.9, 15.8)**	**7.2 (5.3, 9.1)**	**9.1 (5.9, 12.2)**	**8.3 (6.8, 9.9)**	4.7 (2.9, 6.5)	3.9 (3.3, 4.5)
Cigarette use	**20.6 (15.8, 25.3)**	**13.1 (10.7, 15.6)**	**12.5 (9.5, 15.6)**	7.2 (6.0, 8.3)	**16.2 (11.6, 20.8)**	10.0 (7.9, 12.1)	**21.3 (15.4, 27.3)**	**11.5 (9.8, 13.2)**	7.6 (5.0, 10.1)	6.6 (5.9, 7.3)
Binge drinking	**30.0 (25.2, 34.8)**	**28.3 (25.5, 31.1)**	26.3 (23.1, 29.5)	21.9 (20.3, 23.5)	21.6 (16.6, 26.5)	17.9 (15.8, 20.0)	18.2 (14.6, 21.7)	**21.7 (19.7, 23.8)**	15.7 (13.6, 17.7)	16.4 (15.4, 17.4)
Marijuana use	**32.1 (26.8, 37.4)**	**23.4 (20.5, 26.2)**	**22.7 (19.3, 26.2)**	14.9 (13.4, 16.4)	20.9 (15.5, 26.2)	14.2 (12.1, 16.3)	**23.8 (18.4, 29.1)**	**19.7 (17.5, 21.8)**	13.5 (10.5, 16.6)	11.6 (10.7, 12.6)
Had sex	**31.4 (26.6, 36.1)**	**29.0 (26.1, 31.9)**	21.9 (19.3, 24.6)	18.5 (17.0, 20.0)	22.7 (18.1, 27.3)	21.7 (19.1, 24.3)	**27.7 (22.6, 32.8)**	**20.5 (18.6, 22.4)**	20.4 (17.0, 23.9)	16.2 (15.1, 17.2)
Condom use	37.2 (26.7, 47.6)	**33.6 (26.2, 40.9)**	45.3 (36.1, 54.4)	49.2 (42.0, 56.3)	**25.5 (14.2, 36.8)**	**28.6 (20.3, 36.9)**	32.3 (22.0, 42.5)	40.0 (33.5, 46.5)	40.0 (26.4, 53.6)	38.8 (34.1, 43.5)
Contraception use	**37.1 (27.0, 47.1)**	**37.9 (30.4, 45.3)**	54.3 (44.6, 64.1)	61.0 (54.1, 67.9)	**35.3 (22.3, 48.3)**	**27.7 (19.8, 35.6)**	**31.2 (20.3, 42.0)**	44.9 (38.5, 51.3)	32.4 (19.3, 45.5)	48.1 (43.4, 52.9)
Good wellbeing	**49.1 (43.5, 54.7)**	74.7 (71.7, 77.7)	**45.6 (41.3, 49.9)**	77.9 (75.9, 79.9)	**64.2 (58.3, 70.1)**	77.6 (74.5, 80.6)	**27.1 (22.3, 31.9)**	**53.8 (51.0, 56.6)**	**55.1 (49.9, 60.3)**	77.7 (76.5, 79.0)
Depressive symptoms	**53.3 (47.7, 58.9)**	**20.5 (17.7, 23.4)**	**45.6 (41.2, 50.0)**	13.2 (11.5, 14.8)	**42.5 (36.2, 48.8)**	**21.1 (18.0, 24.3)**	**71.3 (65.5, 77.1)**	**44.4 (41.6, 47.3)**	**35.2 (30.0, 40.5)**	15.7 (14.6, 16.8)
Suicide thoughts	**45.1 (39.3, 50.9)**	**17.8 (15.0, 20.6)**	**36.0 (31.7, 40.4)**	12.5 (10.7, 14.2)	**41.4 (34.8, 47.9)**	**20.9 (17.8, 24.1)**	**60.7 (54.5, 67.0)**	**35.3 (32.6, 38.1)**	**32.6 (27.6, 37.7)**	14.4 (13.3, 15.5)

Note: Prevalence estimates adjusted for survey design and for age and sex. Values in bold indicate where the group's CIs do not overlap with those of the double majority group. For space considerations we report the estimates for Pākehā Disabling Condition and Pākehā No Disabling Condition for the Rangatahi Māori analyses, full original % and CIs for the Pākehā groups in the Pacific analysis are presented in Table S4, SOM.

Condition reported better wellbeing. Overall, Pacific youth with a disability faced a similar pattern to the other groups reported here, in that they faced major inequities when analyses compared them to the most advantaged group (Pākehā with no Disabling Condition). In addition, Pacific youth with a Disabling Condition tended to face a greater range of inequities than those who they share only one minority identity with.

Rainbow Young People with a Disabling Condition. Young people with these two identities faced major challenges in their mental health and wellbeing. Rainbow young people with a Disabling Condition had more challenging home environments, worse school relationships, a greater frequency of cigarette smoking and far poorer mental health scores and outcomes, when compared with those who identified as solely Rainbow (with no Disabling Condition) or (non-Rainbow) with a Disabling Condition. For example, 71% of this group had depressive symptoms in the clinically significant range, and only 27% reported good wellbeing. Overall, rainbow young people with a Disabling Condition reported both more frequent and a greater proportion of inequities than those with one of the identities. Of particular concern was their high mental health needs.

Youth Voices

We coded the open-text responses from young people with the included intersectional identities. There were two broad themes in response to: '*What do you think are the biggest problems for young people today?*'

Lack of acceptance and understanding. There were two significant problems that the participants most frequently cited. They were: 1) a lack of acceptance, understanding, and support for their identities, and 2) mental health issues and social pressure. Some participants reported feeling alienated, unaccepted, or misunderstood by the people close to them, including friends and family members. There were several participants who mentioned how important it is to talk about their feelings and emotions:

My mum will never fully get me, nor I her. She understands that I am gay and that won't change but it feels more like tolerance than genuine acceptance. She acts supportive of my relationship with my girlfriend but has gone on record saying she wishes I wasn't gay. It's not true acceptance, it's merely putting up with me. –Māori, Rainbow

Not being accepted for who you are. Young people are always putting on a mask and being other people, not who they truly are. –Māori, Disabling Condition

Mental health and social pressure. There were overwhelming concerns about mental health, depression, suicide, and social pressure. The majority of participants said they felt pressured by unreasonable expectations from society, but in particular from teachers, peers, and their family. The feeling of not belonging was widespread, and some mentioned bullying as an issue. The majority of these young people felt a lack of mental health support and resources:

Mental health is not being promoted as well as it can be… We have one of the highest suicide rates in the world and it is upsetting to see this happen, as our youth numbers declining. –Pacific, Disabling Condition

In response to the second question, *'What do you think should be changed to support young people in New Zealand better?*' responses were categorised into three themes: listen to us and involve us; update the school and education system; and better support.

Listen to us and involve us. Young people want adults to listen to them, understand their point of view and involve them in decisions affecting their future. At home, in school, and in society generally, they want to be heard and taken more seriously. Overall, young people strongly want their opinions to be heard, valued, and acted upon:

Make people feel loved and welcomed in their society. Make buildings for people that don't feel safe and wanted in New Zealand build them in every suburb, not just the popular ones. –Māori, Disabling Condition

The system needs to be more aware of the children. My view is that they don't know anything about children. This is the 21st century. –Māori, Disabling Condition

Update school. Intersectional young people expressed a need for the school system to be 'updated and improved'. In order to better meet their current and future needs, many wanted schools modernised. Specifically, they would like to learn more about financial literacy, tax returns, listening and relationship skills, health, stress management, how to manage emotions, and job-searching skills. Participants also suggested that school could be made less stressful by reducing the pressure of assessments that do little to enhance real understanding:

Educate me on things I actually will use in the future... Educate people on mental health, taxes, future pathways, politics, how to buy a home, job interviews, getting promotions etc. etc. These are so much more important than things like Pythagoras theorem. –Pacific, Rainbow, Disabling Condition

Support us. Participants also highlighted the need for social, emotional, and practical support, including better mental health support. Many suggested that support from family members, mentors, and role models who understood and had 'been there' could serve as a 'bridge to the future', showing the way. Rather than expecting young people to seek help on their own, they wanted adults to reach out to them:

Mental health care needs more funding, and it's kind of stupid we haven't already done that since we have the highest teen suicide rate in the world. –Rainbow, Disabling Condition

DISCUSSION

Firstly, in order to situate the current work, it is important to make clear that most of the young people in the sample reported good health and wellbeing, plus positive social and community environments. Yet there were also serious challenges and inequities. We first discuss these results in relation to intersectionality theory, where we found mixed results. For some indicators, we could say that the challenges that the young people experienced looked additive. To give an example, when

examining the likelihood of discrimination by healthcare providers, Pacific Rainbow participants seemed to be close to the risk for each of those groups with a single minority identity: i.e., the inequity for Pacific non-Rainbow young people (greater than for the Pākehā non-Rainbow group) added to the inequities for Rainbow Pākehā participants (which were again greater than those for non-Rainbow Pākehā young people).

Furthermore, in addition to *higher* levels of inequity on some indicators, those in intersectional groups also faced *more* categories of inequity. That is, inequities on a greater number of measures than those belonging to one minority group alone: for instance, we found evidence of both double or increased inequity and an increased range of inequities (a 'full house' or broad sweep of inequities). However, on some of the indicators the challenges that young people faced appeared to be parallel. Put another way, inequities on some of the indicators were not significantly increased for intersectional young people relative to their level for young people who held just one of the identities. However, overall, young people in intersectional groups tended to face a larger array of inequities than young people with one identity. For example, Rainbow rangatahi Māori may experience the inequities faced by rangatahi Māori (such as increased health discrimination) plus those faced by Pākehā Rainbow young people (for instance, lower wellbeing). While the pattern of these results does not necessarily follow the 'double jeopardy' hypothesis when it comes to challenges on *individual* indicators, it may indicate some type of 'double jeopardy' around facing each pattern of inequity because of each individual identity.

Our results show an increased risk of important health and wellbeing outcomes for those who hold an intersectional identity. Thus, these data show that inequity is a continuing problem. The impacts of discrimination and disadvantage have been well documented in past research on single minority groups (Clark et al., 2020; Fleming, Tiatia-Seath, Peiris-John, et al., 2020), but this study extends this past work by illustrating these effects by intersectionality in Aotearoa.

Qualitative Perspectives

The survey contained open-ended questions on what young people struggle with and how to make Aotearoa better. We analysed the themes from the results of young people with intersectional identities. We included the open-text responses to highlight the strengths demonstrated by young people with intersectional experiences - which are often overlooked in research about them. According to the participants, there is a lack of acceptance, understanding, and support for young people, along with mental health issues and social pressure. We identified three areas to improve the lives of intersectional young people: listen to us and involve us; update school; and support us. These themes reflected the ways in which whānau, communities, and Aotearoa could better support intersectional young people. Taken together, the results across the quantitative and qualitative data show a marked pattern of inequity, exclusion and lack of support for young people with intersectional identities in Aotearoa. This indicates the urgent need to account for the unique intersectional needs of youth by policymakers, agencies, schools, services and practitioners.

Strengths and Limitations

A key advantage of this survey was that it included a large sample, meaning we were able to narrow our analyses to intersectional groups while maintaining a sufficient sample size. However, note that some groups were nevertheless small in size. Therefore, some groups were combined (for example as 'Pacific' or as 'Rainbow', rather than more specific identity groups). Furthermore, although some differences may be meaningful in the real world, we still had wide confidence intervals and some differences did not reach statistical significance. Another key strength was that we did not target specific groups with the research, meaning we did not incidentally exclude those who do not identify with certain terms or communities. This is important as social desirability bias may limit young people from disclosing such identities. For example, if a study uses identity-first terms like "disabled" or "Rainbow" to recruit young people, they may not include those who have recently come to that identity or have not reached that point in their identity journey yet.

The large number of indicators in the survey allowed us to consider multiple domains of health and wellbeing. However, unfortunately, the Youth19 survey is regional – encompassing Northland, Auckland, and Waikato – but it may be that intersectional young people from other regions face different challenges and have different needs relating to access and community. The survey only included those present on the day of data collection, meaning that truant students or those who had left school were missed. This means the survey underrepresents those who are bullied or from lower income groups, which may mean the results were less negative than the actual population estimates on some measures (McGuire & Conover-Williams, 2010). Note that, although this was a large sample survey, we were still limited in our analyses and were unable to analyse the results separately for some groups, such as gender diverse young people. This is important to consider, as evidence suggests that transgender and non-binary people face different and additional challenges to those who identify with a Rainbow sexuality but are cisgender (Veale et al., 2019).

Other groups were missed by this work that could be focused on in other work. For instance, this analysis was of secondary school students and did not include younger people or those youth in the 18-25 age group. We also missed other identities important for intersectionality, such as different ethnic groups, refugee or migrant status, and socioeconomic position. Further work should explore these other intersectionalities and age groups, given the premise that they may all experience different patterns of unmet needs. It is also important to consider that these data were collected prior to the COVID-19 pandemic. It is likely that inequities have been exacerbated by the pandemic, given that research shows that the pandemic, its response, and its recovery are impacting many of these groups more (Radford Poupard, 2021; Steyn et al., 2021). In summary, while this paper documents outcomes in Aotearoa for groups that past work has missed, we did not

include some important groups to focus on that future work could remedy.

Policy Recommendations

Our results lead to multiple potential policy recommendations. Addressing the determinants of inequity and inequality at multiple levels is the best way to achieve sustained major improvements in wellbeing and outcomes (Prevention Institute, (n.d.); Sims & Aboelata, 2019). The best approach to improve outcomes for youth with intersecting identities is through addressing the structural determinants of health and wellbeing that impact them. These include the effects of social and financial inequities, colonisation, systemic racism, ableism, and heterosexism (Reid et al., 2019; Came et al., 2021; Clark et al., 2022). It is suggested that workforce development in health, social services, and education be implemented to ensure that young people are not discriminated against and that providers understand their needs. Particularly, highlighting Te Tiriti and the Mana Māori Motuhake of rangatahi (Māori youth self-determination) must be a policy priority to reduce discriminatory practices affecting youth wellbeing (Lindsay Latimer et al., 2021).

It is important to create a shared vision for intersectional youth to make sure they are able to collaborate, and ensure there is action and accountability (Sims & Aboelata, 2019). Young people need to be explicitly included and lead any plans, strategies and policies that affect their wellbeing, not just in an advisory capacity. An example of a framework that attends to this is the Child and Youth Wellbeing Strategy (DPMC, 2019). Representation and enhancing the ability to build communities are important, and young people's intersectional identities need to be visible at all levels of leadership and included in community engagement (e.g., see Taylor et al., 2021). Such engagement ensures inclusive decision making, but more than that, visible role models are important as they represent a positive future for diverse young people. There are multiple ways that collaborations can be supported, including creating pan-organisational groups or associations, youth activism (e.g., climate activism), supporting sustained funding for organisations, paid roles for youth advisory groups, and facilitating/funding events.

Our findings point to the urgent need for inclusive policy and practice in education institutions. The data shows that education institutions must work harder to enable all young people to feel valued, included and safe. Three domains to address educational equality for these young people at school stand-out: 1) continued work supporting schools to comprehensively identify and reduce discrimination and harassment, including bias-related bullying; 2) reviewing the curriculum across the institution, so that diverse young people's lives and experiences are visible and valued throughout and across their time at school; and 3) ensuring that the physical environment, including changing rooms, bathrooms, and pastoral care and health facilities, as well as policies on school uniforms, sports, and social events are inclusive for all (e.g., see Te Kete Ipurangi Inclusive Guides resources). In relation to curriculum inclusion, our findings show that many intersectional young people reported having already had sex, which makes comprehensive relationship and sexuality education that is inclusive of their experiences a priority, including in primary school and intermediate.

Future Research

A clear evidence base is critical for policy and creating positive change for intersectional young people. While this survey provides a snapshot of the outcomes for different groups, the work needs to be followed up with methods that can provide detailed information about the experiences of these young people, for instance, from interviews, focus groups, wānanga, or workshops. Such work should also seek to include the whānau of young people with intersectional identities, given the crucial support role they play in young people's lives. The current paper also does not explore the issues facing older young people (i.e., those aged 19-25). Future work could focus on the challenges older youth face.

There are two key ways to investigate intersectionality. Firstly, work is needed that explores the broader picture and is large enough to gain representation from those in intersectional groups, in order to get a full picture of wellbeing in Aotearoa. Examples of this type of work include the Youth2000 survey series, but there are also two large surveys that regularly collect in-depth data from thousands of New Zealanders: The New Zealand Attitudes and Values Study and the Ministry of Health-led New Zealand Health Surveys. Secondly, work is needed that considers the specific experiences of these intersectional groups, that are driven by the communities/members of the groups themselves. Examples of this type of work include the HONOUR project Aotearoa (for Rainbow/takatāpui Māori), and the Manalagi project (for Rainbow Pacific communities; Thomsen, 2020). To support such research, we recommend first consulting and engaging with those intersectional community groups and researchers who have research in progress or existing data, before collecting further data and increasing the burden on those respondents and communities. Another important policy issue is ensuring that both kinds of research have sufficient and consistent funding, especially large, multiple-year studies in order to monitor the well-being of all New Zealanders.

Conclusion

In this paper, we show considerable inequities for young people from key intersectional identities in Youth19 data. The overall challenges faced by those in the intersectional groups are significantly greater than those faced by those from the double majority. Additionally, they are generally subject to a greater number of inequities than young people who identify with only one group, and, on some indicators, they are also more challenged or have more unmet needs than those who belong to only one group. There were several areas that showed particular, marked inequities, including, mental health and wellbeing, food and housing insecurity, and forgone healthcare alongside discrimination by healthcare providers, all of which are very clearly associated with social inequities and discrimination. We would also like to note that despite these results, most young people report good health as well as good experiences at school, within family environments, and within friendships. Responses from young people with intersectional identities highlight the

need for positive inclusive environments, safety, elimination of discrimination, and appropriate support. In conclusion, it is important to keep in mind the strengths of these young people alongside the inequities, and the possibility for future changes.

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SUPPLEMENTARY MATERIALS

Table S1. Health and Wellbeing Indicators Used in the Study.

Short Name	Survey Question	Included Response Options
Family Acceptance	"There is someone in my family/whānau who accepts me for who I am"	Agree/Strongly Agree
Family Close	"There is someone in my family/whānau who I have a close bond with"	Agree/Strongly Agree
Safe at Home	"Do you feel safe at home, or the place you live?"	Yes, all the time/ Yes, most of the time
Housing Instability	"For some families, it is hard to find a house that they can afford, or that has enough space for everyone to have their own bed. In the last 12 months, have you had to sleep in any of the following because it was hard for your family to afford or get a home, or there was not enough space? (Do not include holidays or sleep-overs for fun)."	Slept in: Cabin, caravan, or sleep out/Garage/ Couch/ Another person's bed/Couch surfing/Motel, hostel, marae etc/Car or van/ Other
Food Insecurity	"Do your parents, or the people who act as your parents, ever worry about… not having enough money to buy food?"	Sometimes/Often/All the time
Part of school	"Do you feel like you are part of your school, alternative education or course?"	Yes
Teacher Expectations	"Do teachers/tutors expect you do well with your studies?"	Yes
Safe at School	"Do you feel safe in your school/course?"	Yes, all the time/ Yes, most of the time
Positive future	"I can see a positive future for me in New Zealand"	Agree/Strongly Agree
Volunteering	"Do you give your time to help others in your school or community (e.g. as a peer supporter at school, help out on the Marae or church, help coach a team or belong to a volunteer organisation)?"	Yes
Safe in Community	"Do you feel safe in your neighbourhood?"	All the time/Most of the time
Talk with Friend	"I have at least one friend who I can talk with about things that are worrying me"	Agree/Strongly agree
Friend Supports	"I have at least one friend who will stick up for me and who has 'got my back'"	Agree/Strongly agree
Accessed Healthcare	"When was the last time you went for health care (excluding looking online)?"	0–12 months ago
Forgone Healthcare	"In the last 12 months, has there been any time when you wanted or needed to see a doctor or nurse (or other health care worker) about your health, but you weren't able to?"	Yes
Health Discrimination	"Have you ever been treated unfairly (e.g. treated differently, kept waiting) by a health professional (e.g. doctor, nurse, dentist etc.) because of your ethnicity or ethnic group?"	Yes
Cigarette Use	"How often do you smoke cigarettes now?"	Any other than "Never - I don't smoke now"
Binge Drinking	"In the past 4 weeks, how many times did you have 5 or more alcoholic drinks in one session - within 4 hours?"	More than once
Marijuana Use	"In the last 4 weeks, about how often did you use marijuana?"	Any other than "Not at all - I don't use marijuana anymore"

Table S1 (cont'd). The Health and Wellbeing Indicators Used in the Study.

Had Sex	"Have you ever had sex? (by this we mean sexual intercourse). Only include sex that you wanted, or consented to - this does not include sexual abuse or rape."	Yes
Condom Use	"How often do you or your partner(s) use condoms to protect against sexually transmitted infections when having sex?"	Always
Contraception Use	"How often do you, or your partner(s) use contraception (by this, we mean protection against pregnancy)?"	Always
Good Wellbeing	WHO-5 Well-being scale (I have felt cheerful and in good spirits; I have felt calm and relaxed; I have felt active and vigorous; I woke up feeling fresh and rested; My daily life has been filled with things that interest me)	Total score indicates good or better wellbeing
Depressive Symptoms	Reynolds Adolescent Depression Scale - Short Form (RADS-SF)	Total score indicates clinically significant symptoms
Suicide Thoughts	"During the last 12 months have you seriously thought about killing yourself (attempting suicide)?"	Yes

Table S2. Demographic Characteristics of the Five Intersectional Groups.

Group	Total	Gender			Age				NZ Deprivation Band		
		Female	Male	Gender diverse	13 and Under	14	15	16	17+	1	2	3
	% (n)	% (n)	% (n)	% (n)	% (n)	% (n)	% (n)	% (n)	% (n)	% (n)	% (n)	% (n)
Māori Rainbow	1.9% (154)	69.5% (107)	28.6% (44)	1.9% (3)	18.8% (29)	18.8% (29)	22.1% (34)	16.9% (26)	23.4% (36)	13.0% (20)	29.9% (46)	40.9% (63)
Māori with a Disabling Condition	5.5% (435)	60.9% (265)	38.9% (169)	0.2% (1)	16.6% (72)	21.8% (95)	27.6% (120)	18.9% (82)	15.2% (66)	12.4% (54)	27.6% (120)	43.9% (191)
Pacific Rainbow	1.3% (103)	62.1% (64)	33.0% (34)	4.9% (5)	19.4% (20)	25.2% (26)	16.5% (17)	15.5% (1)	23.3% (24)	5.8% (6)	27.2% (28)	53.4% (55)
Pacific with a Disabling Condition	3.8% (293)	70.0% (205)	29.0% (85)	1.0% (3)	12.3% (36)	18.4% (54)	25.9% (76)	18.8% (55)	24.6% (72)	7.5% (22)	17.4% (51)	61.8% (181)
Rainbow with a Disabling Condition	4.3% (333)	77.2% (257)	20.1% (67)	2.7% (9)	12.6% (42)	21.9% (73)	18.3% (61)	20.7% (69)	26.4% (88)	23.1% (77)	40.5% (135)	25.2% (84)

Note. Total % refers to the percentage of the total Youth19 survey sample, for example, there were 154 Rainbow Rangatahi Māori, 1.9% of the Youth19 participants. NZ Deprivation Band 1, 2 and 3 refer to those living in NZ Dep areas 1-3, 4-7 and 8-10 respectively (often referred to as low, medium and high dep).

Table S3. Prevalence with 95% confidence intervals across variables for Pacific Rainbow young people.

Variable Name	Pacific Rainbow % (95% CIs)	Pacific Non-Rainbow % (95% CIs)	Pākehā Rainbow % (95% CIs)	Pākehā Non-Rainbow % (95% CIs)
Family acceptance	**70.2 (59.5, 80.8)**	**89.2 (87.1, 91.2)**	**78.7 (72.5, 84.8)**	93.1 (92.0, 94.2)
Family close	**75.8 (65.8, 85.7)**	90.3 (88.2, 92.3)	**74.7 (68.1, 81.4)**	88.7 (87.3, 90.1)
Safe at home	93.4 (88.0, 98.9)	98.9 (98.3, 99.5)	96.4 (93.9, 98.9)	99.3 (98.9, 99.6)
Housing instability	**23.0 (13.4, 32.6)**	**20.0 (17.4, 22.7)**	9.7 (5.1, 14.3)	4.5 (3.5, 5.4)
Food insecurity	**42.1 (30.5, 53.6)**	**48.7 (45.2, 52.2)**	20.6 (14.6, 26.6)	16.1 (14.5, 17.8)
Part of school	85.0 (77.2, 92.8)	87.5 (85.2, 89.8)	**78.4 (72.9, 83.9)**	86.1 (84.7, 87.6)
Teacher expectations	92.7 (86.5, 99.0)	96.9 (95.7, 98.1)	**89.8 (84.4, 95.2)**	97.0 (96.2, 97.7)
Safe at school	**76.2 (66.3, 86.1)**	**85.4 (83.0, 87.7)**	**78.7 (72.6, 84.8)**	89.4 (88.0, 90.9)
Positive future	**52.1 (38.1, 66.0)**	**67.1 (63.6, 70.7)**	**50.1 (42.0, 58.2)**	74.7 (72.7, 76.6)
Volunteering	58.1 (46.2, 70.1)	57.1 (53.6, 60.7)	55.2 (48.0, 62.4)	53.2 (51.0, 55.4)
Safe in community	91.5 (85.2, 97.7)	94.1 (92.4, 95.8)	91.9 (87.6, 96.2)	95.4 (94.6, 96.3)
Talk with friend	90.6 (85.3, 96.0)	83.2 (80.6, 85.7)	86.4 (82.0, 90.7)	86.0 (84.5, 87.6)
Friend supports	84.1 (75.9, 92.3)	90.1 (87.9, 92.2)	**76.7 (70.6, 82.8)**	89.6 (88.2, 91.0)
Accessed healthcare	69.6 (57.6, 81.6)	**72.7 (69.7, 75.8)**	79.8 (73.0, 86.6)	81.6 (79.9, 83.3)
Forgone healthcare	**39.4 (26.3, 52.4)**	**25.6 (22.6, 28.5)**	**27.5 (20.6, 34.4)**	15.4 (13.8, 16.9)
Health discrimination	**15.1 (6.2, 24.0)**	**7.9 (6.1, 9.7)**	2.9 (1.6, 4.2)	2.9 (2.2, 3.6)
Cigarette use	**20.1 (11.4, 28.8)**	10.8 (8.8, 12.8)	**16.3 (9.5, 23.1)**	7.9 (6.8, 9.0)
Binge drinking	18.7 (12.5, 24.9)	18.7 (16.7, 20.7)	**17.2 (15.2, 19.2)**	21.9 (20.4, 23.4)
Marijuana use	24.4 (13.4, 35.3)	15.3 (13.2, 17.5)	19.1 (13.5, 24.7)	15.9 (14.4, 17.4)
Had sex	**35.5 (25.4, 45.7)**	**21.3 (18.9, 23.7)**	19.4 (15.8, 23.0)	18.5 (17.0, 20.0)
Condom use	**24.6 (8.5, 40.7)**	**28.3 (20.7, 36.0)**	43.6 (25.9, 61.3)	47.5 (41.1, 53.8)
Contraception use	**21.5 (4.7, 38.3)**	**31.1 (23.5, 38.6)**	52.5 (34.2, 70.8)	60.1 (53.8, 66.5)
Good wellbeing	**52.1 (40.3, 63.9)**	76.4 (73.7, 79.2)	**38.1 (30.9, 45.2)**	73.1 (71.1, 75.1)
Depressive symptoms	**46.7 (35.0, 58.5)**	**24.2 (21.3, 27.1)**	**48.8 (40.9, 56.7)**	18.1 (16.4, 19.8)
Suicide thoughts	**41.8 (28.8, 54.7)**	**24.3 (21.4, 27.2)**	**44.8 (36.8, 52.8)**	15.5 (13.9, 17.2)

Note: Prevalence estimates adjusted for survey design and for age and gender. Values in bold indicate where the group's CIs do not overlap with those of the double majority group.

Table S4. Prevalence (with 95% CIs) across variables for Pacific young people with a disabling condition.

Variable Name	Pacific Disabling Condition % (95% CIs)	Pacific No Disabling Condition % (95% CIs)	Pākehā Disabling Condition % (95% CIs)	Pākehā No Disabling Condition % (95% CIs)
Family acceptance	**81.3 (76.5, 86.1)**	**89.7 (87.4, 92.0)**	**85.6 (82.5, 88.7)**	93.7 (92.5, 94.9)
Family close	85.4 (80.7, 90.2)	90.3 (88.0, 92.6)	**81.1 (77.7, 84.6)**	89.4 (87.9, 90.9)
Safe at home	**96.5 (94.1, 98.9)**	99.1 (98.5, 99.7)	**97.4 (96.0, 98.7)**	99.5 (99.2, 99.8)
Housing instability	**26.3 (20.8, 31.8)**	**18.4 (15.6, 21.3)**	**8.9 (6.3, 11.6)**	3.7 (2.8, 4.7)
Food insecurity	**54.8 (48.1, 61.4)**	**46.2 (42.4, 50.1)**	**23.3 (19.5, 27.2)**	14.3 (12.6, 16.0)
Part of school	83.2 (78.6, 87.8)	88.6 (86.1, 91.1)	**80.9 (77.8, 84.0)**	86.8 (85.3, 88.4)
Teacher expectations	96.3 (94.1, 98.4)	96.7 (95.3, 98.2)	94.5 (92.4, 96.7)	96.8 (95.9, 97.6)
Safe at school	**77.1 (72.0, 82.2)**	**86.8 (84.3, 89.3)**	**78.8 (74.9, 82.6)**	91.6 (90.2, 93.0)
Positive future	**61.8 (54.6, 69.0)**	**67.4 (63.5, 71.3)**	**59.0 (54.4, 63.6)**	76.7 (74.6, 78.8)
Volunteering	61.4 (54.8, 68.1)	55.8 (51.9, 59.8)	55.5 (51.2, 59.9)	52.7 (50.3, 55.1)
Safe in community	90.8 (87.2, 94.4)	94.9 (93.1, 96.7)	94.4 (92.3, 96.4)	95.3 (94.3, 96.3)
Talk with friend	81.8 (77.1, 86.6)	84.3 (81.5, 87.0)	**82.2 (79.0, 85.5)**	87.3 (85.7, 88.9)
Friend supports	87.6 (83.4, 91.8)	90.3 (87.9, 92.7)	**82.4 (78.9, 85.9)**	90.3 (88.9, 91.8)
Accessed healthcare	74.1 (68.3, 79.9)	**72.1 (68.6, 75.5)**	**85.7 (82.4, 89.1)**	80.0 (78.0, 81.9)
Forgone healthcare	**43.2 (36.6, 49.7)**	**21.3 (18.2, 24.5)**	**31.9 (27.7, 36.0)**	11.5 (10.0, 13.0)
Health discrimination	**11.9 (7.9, 15.8)**	**7.2 (5.3, 9.1)**	4.4 (3.0, 5.9)	2.4 (1.8, 3.1)
Cigarette use	**16.2 (11.6, 20.8)**	10.0 (7.9, 12.1)	**12.8 (9.7, 15.9)**	7.4 (6.3, 8.6)
Binge drinking	21.6 (16.6, 26.5)	17.9 (15.8, 20.0)	**25.4 (22.2, 28.7)**	20.1 (18.5, 21.7)
Marijuana use	20.9 (15.5, 26.2)	14.2 (12.1, 16.3)	**22.7 (19.2, 26.2)**	14.3 (12.9, 15.8)
Had sex	22.7 (18.1, 27.3)	21.7 (19.1, 24.3)	21.9 (19.2, 24.6)	17.8 (16.3, 19.3)
Condom use	**25.5 (14.2, 36.8)**	**28.6 (20.3, 36.9)**	44.3 (35.1, 53.5)	48.3 (41.2, 55.5)
Contraception use	**35.3 (22.3, 48.3)**	**27.7 (19.8, 35.6)**	54.6 (44.7, 64.4)	61.5 (54.5, 68.6)
Good wellbeing	**64.2 (58.3, 70.1)**	77.6 (74.5, 80.6)	**45.9 (41.6, 50.2)**	77.6 (75.6, 79.6)
Depressive symptoms	**42.5 (36.2, 48.8)**	**21.1 (18.0, 24.3)**	**45.6 (41.2, 50.1)**	13.1 (11.5, 14.8)
Suicide thoughts	**41.4 (34.8, 47.9)**	**20.9 (17.8, 24.1)**	**36.1 (31.8, 40.5)**	12.5 (10.8, 14.2)

Note: Prevalence estimates adjusted for survey design and for age and gender. Values in bold indicate where the group's CIs do not overlap with those of the double majority group.

Police Ten 7 feeds racial stereotypes of Māori and Pasifika peoples in Aotearoa New Zealand

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Police Ten 7 is a reality crime show that follows the police of Aotearoa New Zealand in responding to antisocial and criminal activity. In the current study, we coded 24 episodes of Police Ten 7, screened between 2011 and 2021. For each episode, each offence depicted was coded into one of five categories (i.e., aggressive, driving, drug and alcohol, property, or other) and the ethnicity of the suspect was also coded. We had two hypotheses. First, that Māori and Pasifika will be more likely to be depicted as committing violent crimes than Pākehā suspects. Second, that the proportion of aggressive offences Māori and Pasifika are depicted committing on Police Ten 7 will be higher than that drawn from the National Annual Apprehension statistics. Both hypotheses were supported.

Keywords: *Media, Prejudice, Stereotype*

INTRODUCTION

Police Ten 7 is a reality crime show that follows the day-to-day activities of police officers in Aotearoa New Zealand. In 2021, Auckland City Councillor Efeso Collins asked Television New Zealand (TVNZ) to drop Police Ten 7, stating "…the program showed young brown ppl. This stuff is low level chewing gum tv that feeds on racial stereotypes & it's time u acted as a responsible broadcaster & cut it". The Chief Executive of Screentime, the company behind Police Ten 7, argued that the company tries to provide "…an accurate portrayal of what the police are doing out in the streets" (Cardwell, 2021). Similarly, former host Graham Bell argued that the "…police don't select who they are looking for. The people who commit the crimes are the ones that select themselves to be sought" (McIvor, 2021).

Concerns regarding how race and ethnicity are depicted in reality-crime shows are not new, nor limited to Aotearoa New Zealand (Fishman & Cavender, 2018; Nickerson, 2019). Indeed, much of the literature on how race and ethnicity are represented in reality-crime shows has focused on US reality TV shows, including the long-running show COPS. Content analysis of these shows has consistently demonstrated that Black suspects are more likely to be depicted committing violent crimes than White suspects (Kooistra et al, 1998; Monk-Turner et al., 2007), and that police officers are significantly more likely to engage in aggressive behaviour when the criminal suspects are Black (Mastro & Robinson, 2000; M. B. Oliver, 1994). Speaking to the impact of these portrayals on the viewing public, research has demonstrated that exposure to these programmes increases perceptions of danger, and negative evaluations, of Black people (M. B. Oliver, 1996; Ramasubramanian, 2011).

Stereotypes of Māori and Pasifika in Aotearoa New Zealand

To understand concerns regarding Police Ten 7, it is important to first understand the context, including the stereotyping of Māori and Pasifika in Aotearoa New Zealand (Archer & Archer, 1970; Holmes et al., 2001; Lynskey et al., 1991; P. Oliver & Vaughan, 1991; Sibley et al., 2011; Vaughan, 1962, 1964; Vaughan & Thompson, 1961). Several decades of research have demonstrated Pākehā stereotype Māori as "mean" (Vaughan, 1964), "potential thieves" (Archer & Archer, 1970), and "aggressive" (Lynskey et al., 1991). With respect to Pasifika, P. Oliver and Vaughan (1991) extended earlier studies by assessing Pākehā stereotypes of both Māori and Samoan people, the largest Pasifika ethnic group in Aotearoa New Zealand. Demonstrating damaging stereotypes are not restricted to Māori, the top five descriptors Pākehā used to describe Samoan people were "bludgers, overstayers" (45%), "violent" (34%), "stupid" (28%), "criminal" (26%), and "lazy" (26%). Reflecting the mixed nature of stereotypes, 20% of Pākehā also endorsed the descriptors "nice, good" and

"friendly, sociable". While P. Oliver and Vaughan's (1991) work is now dated, evidence that stereotypes of Pasifika are still prominent is evidenced by the popularity of television programs such as Jonah from Tonga (Boseley, 2020).

Media Portrayals of Māori and Pasifika in Aotearoa New Zealand

In Aotearoa New Zealand, research has conclusively demonstrated that negative portrayals of Māori and Pasifika are prominent in discourses on health (Hodgetts et al., 2004; H. Moewaka Barnes & McCreanor, 2019; Rankine & McCreanor, 2004), politics (Galy-Badenas et al., 2021; McConville et al., 2014), and crime (Allen & Bruce, 2017; Barnes et al., 2013; Bull, 2017; Deckert, 2020; Loto et al., 2006; Maydell, 2018; McCreanor et al., 2014; Meek, 2013). With respect to crime, Thompson (1954) noted several decades ago that media was responsible for representing Māori in stereotypical and decontextualised ways. Fast forward several decades on and the stereotypical reporting of Māori and Pasifika continues unabated (Deckert, 2020; McCreanor et al., 2014). For example, Loto et al. (2006) analysed news reports that focused on Pasifika. Of the 65 news reports identified, negative attributes (e.g., uneducated, violent, obese) were mentioned in 92% of them, with positive attributes only identified in 31% of the reports.

Current Study

To our knowledge, research on the portrayal of Māori and Pasifika on Police Ten 7 is limited to a single Master's thesis (Podvoiskis, 2012) and a recent Honours dissertation (Busby-Pukeiti, 2021). Podvoiskis (2012) conducted a content analysis of the 2010 season (15 episodes) and reported that of the offenders arrested for committing a violent crime, 82% were Māori or Pasifika. When this proportion is compared to the 2010 National Annual Apprehension statistics, Māori and Pasifika are overrepresented in violent crime on Police Ten 7 (82% vs. 51.9% of 2010 apprehensions).

Given that there is contested public opinion about the way that Māori and Pasifika are portrayed on Police Ten 7, and especially in light of the position taken by the show's executives, we sought to systematically analyse whether the show does, in fact, perpetuate negative stereotypes of Māori and Pasifika people. To do this, based on availability, we sourced Police Ten 7 episodes that screened between 2011 and 2021. For each episode, each offence depicted was coded into one of five categories (i.e., aggressive, driving, drug and alcohol, property, or other) and the ethnicity of the suspect was also coded. We had two hypotheses. First, that Māori and Pasifika will be more likely to be depicted as committing violent crimes than Pākehā suspects. Second, that the proportion of aggressive offences Māori and Pasifika are depicted committing on Police Ten 7 will be higher than that drawn from the National Annual Apprehension statistics.

METHOD

Sample

With only recent episodes available to stream on tvnz.co.nz, we sourced older episodes from etv.co.nz, an educational archive of media screened in Aotearoa New Zealand. We also attempted to source episodes through Ngā Taonga Sound & Vision, who hold the Television New Zealand Archive, but were told that they could not make the episodes available. Despite these limitations, we sourced a total of 24 episodes which had aired on the show between 2011 (Season 18) and 2021 (Season 28). We also sourced a single episode from Season 14.

Coding

Coding was carried out by two coders, one identifying as Asian and the other identifying as Māori and Pākehā. The first coder coded all 25 episodes, while the second coder coded 25% (i.e., 6 episodes/19 offences). Each episode was coded for the type of offence committed and for the ethnicity of the suspect involved.

As noted above, offences were coded as *aggressive* (including, domestic argument, domestic assault, common assault, fighting), *driving related* (including, driving infringement, and incidents involving a car crash), *drug and alcohol related* (including, drug possession, being drunk in public, and drug distribution), *property related* (including, theft, arson, trespassing), or *other* (including being issued a warrant and noise-related offences). There was agreement between coders on 18 of 19 offences (94.74%).

In addition to the nature of the offence, the ethnicity of the alleged offender was coded. Following Podvoiskis (2012), ethnicity was classified using three methods: 1) self-identification, 2) narrator identification, and/or 3) researcher observation. It was our initial intention to code five ethnicity categories: Pākehā, Māori, Pasifika, Asian (including Indian), and Other. However, with the inconsistent explicit elaboration of ethnicity within the show, as well as the way faces had been obscured, it was very difficult to differentiate between Māori and Pasifika. We therefore had no alternative option but to combine Māori and Pasifika into a single category. While this is not ideal, Māori and Pasifika face comparable rates of discrimination in comparison to Pākehā. There was agreement between coders on 16 of 19 ethnicity codes (84.21%).

RESULTS

In total, 81 offences were coded across the 25 episodes. Suspects were primarily Māori/Pacific (n = 42) or Pākehā (n = 32), followed by Asian (n = 3) and a small group for whom ethnicity could not be determined (n = 3). For the remaining offence, only the victim was shown on screen and thus the ethnicity of the suspect could not be coded. To focus on the seasons that followed Podvoiskis (2012), we excluded the single episode from season 14 for all subsequent analyses. Specifically, we analysed a total of 24 episodes, covering seasons 18 (n = 2), 19 (n = 2), 20 (n = 2), 21 (n = 2), 22 (n = 4), 23 (n = 2), 24 (n = 2), 25 (n = 2), 26 (n = 2), 27 (n = 2), and 28 (n = 2).

Seventy-seven offences were coded across the 24 episodes. Suspects were primarily Māori/Pacific (n = 41, 53.25%) or Pākehā (n = 30, 38.96%), followed by Asian (n = 3, 3.90%) and a small group for whom ethnicity could not be determined (n = 3, 3.90%). The most common category depicted was offences of aggression (n = 28, 36.36%), followed by driving related offences (n = 22, 28.57%), property related offences (n = 16, 20.78%), drug

Table 1. The number of offences broken down by offence type and ethnicity.

Offence Type	Māori and Pasifika	Pākehā	Asian	Unknown	Total
Aggressive	18	8	1	1	28
	64.29%	28.57%	3.57%	3.57%	
Driving-Related	10	9	2	1	22
	45.45%	40.91%	9.09%	4.55%	
Property-Related	8	7	0	1	16
	50.00%	43.75%	0%	6.25%	
Drug & Alcohol-Related	4	4	0	0	8
	50.00%	50.00%	0%	0%	
Other	1	2	0	0	3
	33.33%	66.67%	0%	0%	

and alcohol related offences (*n* = 9, 10.39%), and other (*n* = 3, 3.90%; Table 1).

Consistent with our first hypothesis, Māori and Pasifika were more frequently depicted as committing violent crimes than Pākehā suspects (64.29% vs. 28.57%; Table 1). This difference was specific to the aggressive offence category, with the frequency of Māori and Pasifika committing driving-related, property-related, drug and alcohol related, and other crimes, similar to that of Pākehā. To test our second hypothesis, that Māori and Pasifika would be presented as committing violent crimes on Police Ten 7 at a disproportionate rate, we drew on New Zealand Police data (NZPolice, 2021). Specifically, focusing on aggressive offences, we calculated the total number of aggressive crimes committed by Māori and Pasifika and non-Māori-non-Pasifika, between 2014 and 2020. Consistent with our second hypothesis, relative to official statistics, Māori and Pasifika were overrepresented committing aggressive crimes on Police Ten 7 (64.29%) compared to their level of 53% of aggressive crimes in the police National Apprehensions data.

DISCUSSION

In the current study, we analysed 24 episodes of Police Ten 7 which aired between 2011 and 2021. A total of 77 incidents were coded, 28 of which were specifically in relation to aggressive crimes Consistent with our hypotheses, Māori and Pasifika were more likely to be depicted committing aggressive offences than Pākehā (64.29% vs. 28.57%). Although we identified a slightly less extreme bias compared to that of Podvoiskis (2012) in the analysis of the 2010 season (64.29% vs. 82% of aggressive offences), our data still support Auckland Councillor Efeso Collins' contention that Police Ten 7 "…feeds on racial stereotypes". Before discussing our results, it is important to call to attention the fact that Councillor Collins comments, in addition to generating a great deal of media attention, have resulted in him and his family receiving death threats (Latif, 2021). This response only adds to the burden of speaking out against social injustice, a burden that is disproportionately carried by the victims of that injustice.

As noted above, in response to criticism of the show, former host Graham Bell argued that "…police don't select who they are looking for. The people who commit the crimes are the ones that select themselves to be sought" (McIvor, 2021). To address Bell's comment, focusing on aggressive offences, we demonstrate that Māori and Pasifika are overrepresented on Police Ten 7 relative to national crime statistics (NZPolice, 2021). Beyond numbers, Bell's argument ignores the contextual factors that contribute to offending, continuing the colonial tradition of depicting indigenous people as inherently violent and aggressive (Farr, 2019; Jackson, 1987; McCreanor et al., 2014; Morrison, 2009). Bell's 'reality' is a construction built upon the hegemonic discourse of colonialism, with the depiction of Māori (and other indigenous peoples) as inherently violent (A. Moewaka Barnes et al., 2012), something that has been broadcast through communication systems of anglophone and other European empires for centuries (Abel, McCreanor, & Moewaka Barnes, 2012). From this perspective, the mass media can be seen as a key instrument of Crown policy and its enactment (Ballara, 1986; McGregor & Comrie, 2002; Spoonley & Hirsh, 1990). To this day, with an expanding presence through social networking sites, mass media can still be viewed effectively as agents of the Crown, actively maintaining and defending the colonial state (Nairn & McCreanor, 2021).

The media has also supported the enactment of Crown policy against Pasifika. A clear example of this is the Dawn Raids. The Dawn Raids were carried out in the 1970s, with police entering the homes of Pasifika people in the early hours of the morning and demanding proof of residence (Allen & Bruce, 2017). The bias displayed by the Crown is revealed in the conviction rates for overstayers. Indeed, as Allen and Bruce (2017) note, despite representing only ~33% of overstayers, Pasifika represented ~86% of prosecutions for overstaying. The Dawn Raids occurred at a time when populist opinion and media coverage had shifted from casting Pasifika as hard working and valuable to Aotearoa New Zealand, to casting them as taking jobs from "New Zealanders" (Spoonley, 2012). This framing is captured by a cartoon run in 1975 by the National Party during its election campaign (National Party, 1975). The cartoon depicted many people arriving from overseas on planes and then cutting to a Pasifika male lining up to receive a job, the voice over then notes that "Then one day there weren't enough jobs either. The people became angry… And violence broke out. Especially among those who had come from other places expecting great things." While the voice over plays, the cartoon depicts Pasifika and Pākehā fighting outside a pub.

Strengths and Limitations

Despite screening on television in Aotearoa New Zealand for more than 20 years, the current study is one of the very few that have conducted a content analysis of Police Ten 7 (Podvoiskis, 2012). While we acknowledge the authors of the recent Independent Report Commissioned by Television New Zealand (TVNZ) and Screentime note that they "…viewed a number of current and earlier episodes of Police Ten 7 from the early 2000s to the present day to assess the programme's evolution over time", it is not clear that they conducted any systematic content analysis (Bieleski & Quince, 2021). However, our finding that the bias has decreased since Podvoiskis (2012) (i.e., Māori and Pasifika representing 64.29% vs. 82% of aggressive offences), is consistent with Bieleski & Quince's (2021) conclusion that some aspects of Police Ten 7 have improved over time.

The current study is not without limitations. First, although based on the practical difficulty of reliably being able to identify the ethnicity of suspects, grouping Māori and Pasifika together is problematic. Future studies, utilising a larger sample of episodes, should attempt to use separate ethnicity codes. It is also advisable to use a larger number of coders and ensure that there are coders that identify as Māori and Pasifika. With respect to the number of episodes coded in the current study, we were severely restricted by the availability of episodes. As a result, statistical analysis of these data is limited by the relatively small number of incidents included in the 24 episodes that were coded. Moreover, in the absence of a larger database of episodes, we cannot be certain that the episodes that we analysed in the current study are an accurate and unbiased representation of all Police Ten 7. Access to a larger (or complete) database of episodes would ensure that the analyses would be representative of the show and would also improve the sample size such that robust statistical analyses could be undertaken.

Finally, it is important to note that national crime statistics may also inflate the proportion of aggressive offences committed by Māori and Pasifika. Indeed, as Bull (2017) notes, there are several filters that occur between a potential crime being committed and someone being convicted. For example, once a crime is committed, a member of the public must choose whether to report it to the police. Once reported, the police must then decide whether or not to record it as a crime. Without clear data on this issue, it is unknown how the ethnicity of a suspect may influence these choices (Bull, 2017; Hook, 2009). However, we concur with Bottomley and Pease (1986), who note "it would be very unwise to extrapolate" from conviction rates (i.e., the ethnicity of suspects known to the system) to the markedly larger number of people committing crimes that are not reported or officially recorded.

Conclusion

TVNZ is a free-to-air public broadcasting network. Public broadcasting networks have the ostensible aim of providing a public service and engaging citizens. As a public broadcasting network in receipt of public funding, TVNZ is obliged to honour Te Tiriti o Waitangi by broadcasting content that protects Māori people and culture. New Zealand On Air's funding strategy 2017 and Rautaki Maori plan specifically states a values-based approach and commitment to Te Tiriti o Waitangi (NZOnAir, 2016, 2018). In particular, New Zealand On Air's Rautaki plan recognises that funded content should *"uphold the mana tangata and mana iwi"* (NZOnAir, 2018, p. 2). While we analysed some Police Ten 7 episodes prior to the introduction of this strategy, our analyses indicate that TVNZ still has work to do to fulfil this commitment.

In response to the complaints regarding stereotyping, and the report produced by Bieleski and Quince (2021), TVNZ has rebranded 'Police Ten 7' as 'Ten 7 Aotearoa' and stated that they will feature "… a broader range of communities around New Zealand" (Sowman-Lund, 2022). To ensure TVNS fulfils this commitment, we recommend that analyses such as those reported by Bieleski and Quince (2021), and those reported in the present paper, are conducted at regular intervals.

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Pride, Interest, and Online Willingness to Support Achievements across New Zealand European, Pasifika, and Korean Ethnic Groups

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To understand cyberbullying of high achievers, a willingness to support high profile individuals online was examined across cultures using the Tall Poppy scale. Three different cultural groups (226 New Zealand Europeans, 102 Pasifika, and 143 Koreans), answered an online questionnaire addressing: a preference for high achievers to be rewarded or fail; willingness to vote and support others; and offered achievement-related debrief information. Pasifika were more likely to support others online, and this seemed to be due to cultural pride. The Favour Fall scale predicted time spent viewing achievement-related information. The Korean sample did not prefer the reward of high achievers, but spent more time on a debrief page viewing successes, suggesting excessive criticism or a preference for self-enhancing information. Tall Poppy Syndrome, and a reduced pride within an ethnic group, can be associated with reduced online support for others.

Keywords: *Pakeha, Pasifika, Korean, Schadenfreude, Envy, Ingroup, Voting*

INTRODUCTION

The advent of social media (Aichner, Grünfelder, Maurer, & Jegeni, 2021) now means that the general public are not just authoring content online, but also upvoting (or downvoting) the content that others post. Such behaviour reifies the otherwise subtle mechanisms of social support and has implications for mood (Kramer, Guillory, & Hancock, 2014). Unfortunately, sustained criticism of others can contribute to suicide (Hinduja, & Patchin, 2010; Phillips, Diesfeld, & Mann, 2019), and such trends can be more dramatic in countries with higher suicide rates such as Korea (Dae-o, 2020).

There are ongoing concerns about cyberbullying (Slonje, Smith, & Frisén, 2013) and suicide rates (Kim, Jung-Choi, Jun, Kawachi, 2010; Lee, Park, Lee, Oh, Choi, & Oh, 2018). In an effort to inform possible interventions the present study sought to understand the tendency for people to criticise high profile individuals using the Tall Poppy Scale (Feather, 1989) and examined differences in willingness to support (or criticise) others across cultures that differ in their suicide rates.

People now understand and are willing to register their levels of interpersonal support not just for politicians, but also for other members of the community. Reality TV (Ouvrein, Hallam, De Backer, & Vandebosch, 2021) and the advent of social media means it is not just politicians (Akhtar & Morrison, 2019) and celebrities (Li, Lai, & Chen, 2011) but also members of the general public (e.g. Cheng, Danescu-Niculescu-Mizil, & Leskovec, 2014) that are being evaluated. Members of the general public can now support the posts of others on social media such as Facebook by clicking "like" (Hutchinson, 2020). Unfortunately people are not always positive in their reaction (Akhtar & Morrison, 2019; Massanari, 2017). Sadly, some high-profile individuals such as Charlotte Dawson (TV star), Jake Millar (entrepreneur), Choi Jin-Sil (TV personality), and Cho Jang-mi (internet personality), or elite athletes such as Olivia Podmore (cyclist) and Kim In-hyeok (volley ball star) have received sustained criticism that has led to their suicides. This creates concerns about corporate liability (Santana, 2014) and online standards of conduct (Shieber, 2019). Cyberbullying is a serious concern in certain jurisdictions (Lee, 2016).

A desire to see high achievers humbled has been called the Tall Poppy Syndrome (Feather, 1989). This pleasure at another's misfortune, sometimes termed "Schadenfreude", has been described as the worst of human emotions (Smith, Powell, Combs, & Schurtz, 2009). The three putative mechanisms thought to contribute to Tall Poppy Syndrome are Envy, Rivalry, and Deservingness (Wang, Lilienfeld, & Rochat, 2019).

Envy is an emotion that arises when one person perceives another as having better circumstances (Wallace, James, & Warkentin, 2017). Notably, the media deliberately seek to attract attention (Ouvrein, Hallam, De Backer, & Vandebosch, 2021) to specific websites upselling lifestyles and merchandise, as looks and clicks thru can directly feed revenues (McLaren & McLaren, 2000). However, it seems upwards comparisons can lead to poorer mood. Studies of "Facebook Envy" report that the monitoring of the achievements of others can influence self-esteem (Appel, Gerlach, & Crusius, 2016; Glaser, Liu, Hakim, Vilar, & Zhang, 2015; Krasnova, Widjaja, Buxmann, Wenninger, & Benbasat, 2015). Indeed, passive social media use and social exclusion has been associated with lower mood (Macrynikola & Miranda, 2019).

Envy can arise from perceived advantage (Lange, Weidman, & Crusius, 2018), and for some this elicits a maliciously envious wish to pull the envied person down from their superior position (Van de Ven, 2016). Moreover, there are suggestions that darker impulsive behaviours are a product of a malignant *entitled* envy (Lange, Crusius, & Hagemeyer, 2016; Lange, Paulhus & Crusius, 2018).

Other factors that contribute to reduced support online could also involve feelings of *rivalry* or perceptions of *deservingness* (Wang, Lilienfeld, & Rochat, 2019). People prefer to reward members of their "in group" in preference to an "out group" (Castelli & Carraro, 2010; Yamagishi, Jin, & Miller, 1998), and negative emotions are greater against successful outgroups (Leach & Spears, 2008; Leach, Spears, Branscombe, & Doosje, 2003).

Alternatively, a high profile may appear undeserved. Hall (2014) has noted that some individuals can have more followers on social media than appears warranted in relation to their actual achievements. Indeed, people have been less supportive of people whose achievements are undeserved (Van Dijk, Ouwerkerk, & Goslinga, 2009), and less sympathetic to those who are responsible for their own misfortune (Van Dijk, Goslinga, & Ouwerkerk, 2008). For instance, lower social classes of Chinese experienced greater envy, and this was associated with greater perceived injustice (Hong, Lin, & Lian, 2020). Indeed, disadvantaged groups take more pleasure from the discomfiture of an "out group" (Leach & Spears, 2008; Leach, Spears, Branscombe, & Doosje, 2003).

Attitudes towards others' achievements have been studied using the Tall Poppy Scale (Feather, 1989). This instrument has two scales: Favour Reward and Favour Fall. The Favour Reward scale assessed a preference for high achievers to succeed, and the Favour Fall scale assessed a preference for high achievers to fail. Studies have found lower self-esteem to be associated with a greater preference for high achievers to fail (Feather, 1989; Feather & McKee, 1993).

Feather (1989) previously found lower Global Self Esteem was associated with a preference for high achievers to fail. This might reflect the effects of envy, as lower self-esteem would lead to more upwards comparisons. However, other studies indicate that deservingness may be an important factor influencing the preference for higher achievers to fail (Berndsen & Feather, 2016). As Decisional Self-Esteem has been linked to better decision making (Ball, Mann, & Stamm, 1994), better ability and school grades (Ball, Mann, & Stamm, 1994; Phillips, & Landhuis, 2021), a Decisional Self Esteem scale could be assessing competence rather than self-esteem and thus may be addressing an understanding of deservingness rather than a sense of envy.

The Tall Poppy Scale has been used to consider cross-cultural differences in attitudes towards achievement (Feather & McKee, 1993). More independent cultures such as the USA and Canada were found to favour the reward of high achievers (Feather, 1998), whereas more interdependent Japanese samples preferred that high achievers fail (Feather & McKee, 1993). As Western and Asian cultures differ in their appreciation of individuality and achievement (Varnum, Grossmann, Kitayama, & Nisbett, 2010), it is likely that there will be differences in their willingness to support others (Wang & Liu, 2019).

Our concern is that Schadenfreude manifests behaviourally as cyberbullying. According to the World Health Organisation (2022), South Korea has had one of the highest suicide rates in the world (https://www.who.int/data/gho/data/themes/mental-health/suicide-rates). Indeed, so many Korean celebrities have committed suicide (Dae-o, 2020), that petitions have been launched to curb the behaviour. By contrast New Zealand Pakeha, and in particular, Pasifika tend to have lower suicide rates (https://mentalhealth.org.nz/suicide-prevention/statistics-on-suicide-in-new-zealand). A comparison of these ethnic groups is liable to offer insights as to some of the mechanisms contributing to suicide.

Recently others have considered whether the Tall Poppy Scale can not just predict attitudes, but also predict online behaviours (Phillips, Landhuis, & Wood, 2021). Favour Reward scores predicted an interest in achievement, and Favour Fall scores predicted Schadenfreude - an interest in failure that manifested behaviourally as more clicks and more time spent on a debrief page (Phillips, Landhuis, & Wood, 2021).

The elicitation of votes for reality TV contestants (Ouvrein, Hallam, De Backer, & Vandebosch, 2021) via text messages (Mahatanankoon, Wen, & Lim, 2005) has been an ongoing method of garnering support and generating a revenue stream (Griffiths, 2007). Given that social media now reify interpersonal support (Godlewski,& Perse, 2010; Van Dijk, Ouwerkerk, van Koningsbruggen, & Wesseling, 2012), the present study used the previously validated Tall Poppy Scale to address cross-cultural differences not just in willingness to support high achievers but also associated online behaviours.

As Koreans have had higher suicide rates and NZ Europeans and Pasifika have had lower suicide rates, it is hoped that differences across ethnic groups will provide insights into levels of support for high achievers and mechanisms contributing to cyberbullying and differences in suicides across cultures. As New Zealand Europeans have been found to differ in their outlook from Asian and Pasifika groups (Webber, McKinley, & Hattie, 2013), it was expected that:

1. People from cultures with a tradition of independence (e.g. New Zealand Europeans) would differ in their levels of pride, and would be more likely to prefer high achievers to succeed than peoples from more interdependently oriented cultures (e.g. Koreans, Pasifika).
2. Lower Decisional Self Esteem would predict a preference for high achievers to fail.
3. The Tall Poppy Scale would predict online support as indicated behaviourally as voting and interest in achievement.

METHOD

Participants

Participants were self-identified Koreans, Pasifika or New Zealand Europeans who responded to an online survey that was advertised on first year psychology online noticeboards, Reddit and specific ethnic newsgroups (e.g.

Korean church groups, Pasifika Law Students Society). Due to insufficient sample sizes Māori and other non-European New Zealand residents were excluded from analyses. There were 143 Korean participants (mean age 29.4 years, *SD*=11.5; 38% male, 62% female) and 102 Pasifika participants (mean age 24.1, *SD*=7.7; 11% male, 89%, female). The NZ Europeans (*N*=226) had a mean of 26.0 years (*SD*=10.6; 26% male, 70% female).

Materials

The Decisional Self Esteem scale (Mann et al, 1998) consists of six English language questions measuring confidence in decision making. Items are answered using a three-point scale (2 = True for Me, 1 = Sometimes True for Me, 0 = Not True for Me). Scores range from 0 to 12. The scale has been used cross-culturally previously (Mann et al, 1998), and has been validated upon gifted individuals (Ball, Mann, & Stamm, 1994) and populations with Major Depressive illness (Radford, Mann, & Kalucy, 1986). Higher scores indicate greater confidence in decision making, whereas lower scores have been associated with maladaptive decisional styles (Phillips & Ogeil, 2011; Radford, Mann, & Kalucy, 1986). The Cronbach's alpha over a six country sample was .74 (Mann et al, 1998).

The Tall Poppy Scale (Feather, 1989) has Favour Reward and Favour Fall subscales that consider preferences towards high achievers. Each subscale consists of 10 items. Participants respond to each item on a 6 point Likert scale. The scores for each subscale range from 10 to 70. The Tall Poppy scale has been used across a range of cultures (Feather, 1998; Feather & McKee, 1993) and has been validated against other measures of values and social power (Feather, 1989). Cronbach's alphas for the Favour Reward and Favour Fall scales were .80 and .86 respectively.

To assess pride in one's national/ethnic identity, participants were asked whether they were a NZ Pakeha, a Pasifika or a Korean. The questionnaire then branched and they were asked whether they were proud of their ethnic identity, namely "how proud are you to be a [label]" on a 5 point Likert scale, with items varying from "extremely proud" to "not proud".

Achievement: Online Support and Interest. On the penultimate page of the survey participants were asked whether they voted for contestants of their ethnic group on reality TV. Participants were also told there would be a debrief screen at the end of the survey listing links for further information. Participants were asked whether they would be interested in details of achievements (successes, failures, or neither) associated with their self-identified ethnicity.

Behavioural Indices. There was a debrief page at the end of the questionnaire providing links to Successes or Failures associated with each ethnic group. As behavioural indicators of interest, Qualtrics enabled us to measure the amount of time participants spent on the debrief page at the end of the survey. Interest was determined from the time spent on the page and by counting the number of clicks.

Procedure

All procedures were conducted in accordance with requirements of the institutional ethics committee. Participants were recruited through an anonymous online survey, advertised on public online noticeboards. After an explanatory statement, questions assessed demographic details, Decisional Self-Esteem, followed by the Tall Poppy Scale. Questions then assessed national pride, willingness to vote and support others, and elicited interest in a debrief page. Qualtrics measured the amount of time and the number of clicks devoted to the debrief page.

Analysis

To control experiment-wise error rate, omnibus multivariate tests were initially conducted. Where a significant multivariate effect was detected, univariate tests and simple contrasts were performed to determine the source of the effect. As response rates influenced statistical power, voting and debrief behaviours were analysed separately: approximately half of participants expressed no interest in the debrief page and were omitted from further analyses. As measured activity on the debrief page was significantly positively skewed, the log transformed data (+1) was analysed, but untransformed means are reported for purposes of interpretability.

RESULTS

Tall Poppy Scores

Means and intercorrelations across the three groups for the Tall Poppy scale are presented in Table 1. Means will be considered further in the section on Group Differences. The size of correlations between Decisional Self Esteem and Favour Reward did not vary significantly between the 3 groups. However, correlations between Decisional Self Esteem and Favour Fall scores were

Table 1. Means scores and correlations between Decisional Self-Esteem and Tall Poppy subscales for NZ European, Pasifika and Korean samples

	NZ Euro Sample	Pasifika Sample	Korean Sample	Correlations: NZ Euro		Correlations: Pasifika		Correlations: Korean	
	Mean (SD)	Mean (SD)	Mean (SD)	Favour Reward	Favour Fall	Favour Reward	Favour Fall	Favour Reward	Favour Fall
Decisional Self-Esteem	8.32 (2.58)	7.44 (2.12)	7.79 (2.58)	.141*	-.434**	-.066	-.332***	.072	-.186*
Favour Reward	46.34 (8.13)	46.54 (7.69)	44.66 (8.09)		-.358**		-.081		-.129
Favour Fall	35.71 (8.83)	34.97 (8.95)	37.86 (8.38)						

N for the Korean sample was 119. N for the Pasifika sample was 97. N for the New Zealand European sample was 222. Tests of significance are two-tailed. *p<.05; **p<.01 ; ***p<.001

Table 2. Willingness to vote to support reality TV contestants, and interest in a debrief page (Percentages in brackets).

	Voting			Debrief			
Group	Yes	No	Total	Success	Failure	Neither	Total
NZ Pakeha	46 (21.2)	171 (78.8)	217 (100)	87 (38.7)	26 (11.6)	112 (49.8)	225 (100)
Pasifika	53 (51.0)	51 (49.0)	104 (100)	48 (46.2)	18 (17.3)	38 (36.5)	104 (100)
Korean	18 (14.9)	103 (85.1)	121 (100)	66 (54.5)	10 (8.3)	45 (37.2)	121 (100)
Total	117 (26.5)	325 (73.5)	442 (100)	201 (44.7)	54 (12.0)	195 (43.3)	450 (100)

stronger for the NZ European group than the Korean group (z=2.409, p=.016). As may be seen in Table 1, correlations between Favour Reward and Favour Fall scores were also stronger for the NZ European group than both the Korean (z=2.132, p=.033) and Pasifika groups (z=2.380, p=.017).

Voting behaviour

There was a significant relationship between Group and willingness to Vote for reality TV contestants (χ^2=43.506 (2*df*, *N*=443) p<.001). As may be seen in Table 2, a greater proportion of Pasifika, and smaller proportion of Koreans were prepared to vote to support their peers. Tests breaking down the table indicated that Pasifika were significantly more supportive than NZ Europeans (χ^2=29.199 (1*df*, *n*=321) p<.001) or Koreans (χ^2=33.720 (1*df*, *n*=225) p<.001).

A 2x2 Group by Voting Willingness MANOVA was conducted to explore factors contributing to voting behaviours. Given the potential importance of group membership, a measure of ethnic pride (Yamagishi, Jin, & Miller, 1998) was included as well as attitudes to achievement and self-esteem. This would determine whether any observed effects resulted from national/ethnic pride. There were significant Group differences (Pillai's Trace=.349, F(8,818)=21.598, p<.001, η^2=.17), but these were mainly due to univariate differences in cultural pride (F(2,411)=103.570, p<.001, η^2=.34). Pasifika had greater cultural pride (M=4.63, SE=0.10) than NZ Europeans (M=3.21, SE=0.08) or Koreans (M=2.34, SE=0.14). There was also a significant multivariate interaction between Group and Voting intent (Pillai's Trace=.349, F(8,818)=2.858, p=.004, η^2=.03). Again the effects were associated with univariate differences in cultural pride (F(2,411)=9.238, p<.001, η^2=.04) and can be seen in Figure 1. Simple main effects indicated that pride was greater for voting than non-voting NZ Europeans (F(2,411)=28.804, p< .001). Pride did not appreciably vary with voting intent for Pasifika (F(2,411)=0.155, p> .05) or Koreans (F(2,411)=0.299, p>.05).

Debrief

There was a significant association between Group and stated Interest in achievement on the debrief page (χ^2=12.713 (4*df*, *N*=450) p=.013) (see Table 3). Tests breaking down the proportions of Success and Failure in the table indicated that Koreans were more interested in success than Pasifika (χ^2=4.446 (1*df*, *n*=142) p=.035) or NZ Europeans (χ^2=2.860 (1*df*, *n*=189) p=.091).

To distinguish between those that specifically expressed interest in success or failure, analyses omitted participants that indicated no interest in achievement related information at debrief. A Group by Debrief MANOVA was performed upon Tall Poppy scores, Pride, and activity spent on the debrief page. There were significant differences as a function of expressed Interest (Pillai's Trace=.104, F(6,226)=4.395, p<.001, η^2=.10) and Group (Pillai's Trace=.576, F(12,454)=15.302, p<.001, η^2=.29).

Interest in Achievement. An interest in achievement was associated with significant differences in Favour Reward (F(1,231)=15.363, p<.001, η^2=.06), and Favour Fall (F(1,231)=4.565, p=.034, η^2=.02) scores. Participants expressing an interest in Success had higher Favour Reward (M=47.10, SE=0.51) and lower Favour Fall (M=35.89, SE=0.65) scores than participants expressing an interest in Failure (Favour Reward M=42.59, SE=1.03; Favour Fall M=39.04, SE=1.32). Stated interest significantly influenced amounts of time spent on the debrief page (F(1,231)=7.586, p=.006, η^2=.03). People expressing an interest in Failure (M=26.40s, SE=8.06) spent longer on the debrief page than people expressing an interest in Success (M=7.06s, SE=3.96).

Group Differences. Differences between groups were associated with significant univariate differences in Favour Reward (F(2,231)=5.373, p<.005, η^2=.04) and

Figure 1. Group differences in willingness to support others online varies with pride.

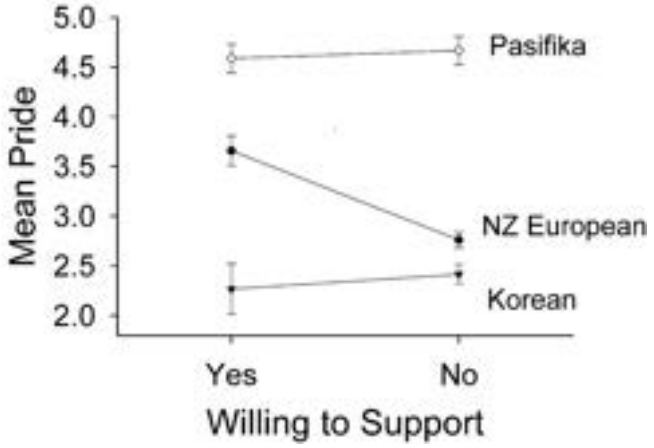

Table 3: Korean participants and their identification towards Cultural sayings on social etiquette around showing achievement or failure.

	Favour Reward	Favour Failure	Proud of being Korean
모난 돌이 정 맞는다. A spiked stone gets hammered.	-.007	.260**	-.081
자랑 끝에 불붙는다. Fire catches at the end of boasting.	-.008	.205*	.068
자식 자랑 팔불출. If you boast about your child, you're immature	-.180*	.215*	-.254**

*p<.05; **p<.01

Favour Fall (F(2,231)=4.249, p=.015, η^2=.04) scores. Simple contrasts indicated that Koreans had lower Favour Reward (M=42.22, SE=1.20) and higher Favour Fall (M=40.71, SE=1.54) scores than NZ Europeans (Favour Reward M=46.87, SE=0.76; Favour Fall M=36.68, SE=0.98) or Pasifika (Favour Reward M=45.44, SE=0.98; Favour Fall M=34.99, SE=1.26). The groups differed in levels of cultural pride (F(2,231)=61.508, p<.001, η^2=.35). Simple contrasts indicated that Koreans (M=2.21, SE=0.17) had lower levels of pride than NZ Europeans (M=3.19, SE=0.11) or Pasifika (M=4.53, SE=0.14).

The groups also significantly differed in the amounts of time (F(2,231)=12.241, p<.001, η^2=.10) and the number of clicks (F(2,231)=24.162, p<.001, η^2=.17) they devoted to the debrief page. Simple contrasts indicated that Koreans tended to spend more time (M=10.52s, SE=2.04) and devoted more clicks (M=2.90, SE=0.40) to the debrief page than NZ Europeans (Time M=5.17s, SE=1.29; Clicks M=1.51, SE=0.26) or Pasifika (Time M=9.36s, SE=1.71, Clicks M=0.63, SE=0.34).

The Korean sample were also asked to indicate their agreement with some culturally appropriate sayings (see Table 3). Favour Fall scores were significantly correlated with the cultural sayings "a spiked stone" (r=.260, N=143, p<.001), "fire catches" (r=.205, N=143, p<.001), and "boast your child" (r=.215, N=143, p<.001). However, the saying that "boasting about your child was immature" was negatively correlated with cultural pride (r=-.254, N=143, p<.001). People that were proud of being Korean disagreed that boasting was immature.

DISCUSSION

The suicides of high-profile individuals in response to cyberbullying requires an understanding of factors contributing to the criticism of high-achievers. A comparison of ethnic groups with different suicide rates is liable to offer insights as to mechanisms contributing to suicide in NZ. Hopefully this will then inform organisations such as E Tū Tāngata (https://www.etutangata.nz/) that are seeking to address suicides and reduce Tall Poppy Syndrome.

To gauge levels of online interest and support, the present study used the Tall Poppy scale to examine stated willingness to vote for reality TV contestants and tracked interest in achievement related information. High levels of support were found within the Pasifika sample. Greater levels of pride seemed to predict online support for others. And while the Korean sample exhibited the least pride and online support, it demonstrated the greatest interest in achievement related information.

Feather (1989) found the Tall Poppy scale could predict Schadenfreude, an interest in the misfortune of others (Feather, 2012). However, such tendencies appear to vary across cultures (Feather & McKee, 1993; Feather, 1998). Feather and McKee (1993) found self-esteem correlated -.31 with a preference for high achievers to fail in an Australian sample, and found weaker relationships in a Japanese sample (r=-.15). Similar trends can be observed Table 1, where correlations between measures of esteem and preference for high achievers to fail were stronger in an independently-minded NZ European sample (-.43) and weaker in a more interdependent Korean sample (-.19). Presumably additional factors such as pride and connection influence attitudes towards achievers across these ethnic groups (Webber, McKinley, & Hattie, 2013).

Feather and McKee (1993) found a moderate relationship (r=-.24) between Global Self Esteem and a preference for the fall of Tall Poppies that is suggestive of "envy". However the present study considered Decisional Self Esteem. As higher Decisional Self-Esteem has been linked to better school grades (Phillips, & Landhuis, 2021), and better Psychological Quality of Life (Kim, Phillips, & Ogeil, 2022) this measure is possibly a better indicator of competence. The stronger relationships between Decisional Self Esteem and Tall Poppy scales (r=-.43) observed in the present study, may in part indicate that competence and a better understanding of the mechanisms contributing to achievement (Barber, 2002; Kruger & Dunning, 1999) might lead people to consider that high achievers are more likely to deserve their success.

However, if the negative correlation between Decisional Self-Esteem and Favour Fall scores reflects a better understanding of competence and deservingness with respect to achievement, then this tendency may be weaker in Koreans. As similar weak relationships between self-esteem and attitudes towards achievement were also observed by Feather and McKee (1993) in Japanese, this may reflect the overarching emphasis upon interdependence in Asian societies (Varnum, Grossmann, Kitayama, & Nisbett, 2010). Given the higher suicide rates in some Asian societies (Bertolote & Fleischmann, 2002), this interdependence may come at the cost of the individual if levels of support are low.

Feather (1989) found the Favour Fall scale was more sensitive to the disapproval of high achievers. The present

study found these Favour Reward and Favour Fall scores could predict interest in the debrief page, but not willingness to vote for peers. Instead, online support seemed to reflect pride and group membership that pointed to a role of rivalry (Wang, Lilienfeld, & Rochat, 2019). Higher levels of pride in the Pasifika sample were associated with the highest levels of support. The lower levels of pride seen in the Korean sample was associated with the lowest levels of support. And levels of support specifically varied with degree of pride within the NZ European sample, clearly indicating that pride determined online support and voting behaviour.

Individualism and achievement often meet with resistance from group members (Carr, Purcell, Bolitho, Moss, & Brew, 1999), and the associated ostracism appears to be motivated by an attempt to control them (Nezlek, Wesselmann, Wheeler, & Williams, 2015). Moreover, Cheng, Danescu-Niculescu-Mizil, and Leskovec (2015) examined voting behaviours within discussion boards, and noted that those individuals that would eventually be excluded were those that least appeared to conform to the group identity. The present study finds that pride in a group identity can be a predictor of online support (Ioane, 2017). Whereas those groups with lower levels of pride were less likely to support other group members, and this would potentially influence overall well-being in these cohorts (Keyes, 2007; Nakashima, Isobe, & Ura, 2013).

As expected, Tall Poppy scores predicted greater interest in the failure of high achievers. People expressing an interest in the failure of high achievers had higher Favour Fall and lower Favour Reward scores, and spent longer on the debrief page, indicating a level of Schadenfreude in the sample overall. However, Koreans deviated from such tendencies. Koreans most preferred the failure of high achievers, and were least willing to provide online support, but expressed an interest in achievement and spent more time looking at the debrief page than the other ethnic groups. This possibly could reflect historic trauma, higher levels of criticality and greater scrutiny of achievement (Dae-0, 2020). Potentially the cultural sayings of this group offer some insight into such behaviour (Ye, Ng, Lu, & Ma, 2018). Confucian values of humility discourage individualism, and this is indicated by correlations with the Favour Fall scale. However, cultural pride also correlated with such cultural sayings. Possibly the greater amounts of time Koreans spent on the debrief page reflects pride in collective Korean achievement. And this is supported by correlations that indicated that participants felt boasting was not immature.

The present data clearly indicate a preference to support the "in group" (Leach & Spears, 2008; Leach, Spears, Branscombe, & Doosje, 2013). Indeed social media and viral marketing depend upon such mechanisms (Leskovec, Adamic, & Huberman, 2007). Homophily and a tendency for "like" to support "like" is in keeping with balance theory (Heider, 1958). Social media allow people to connect with others with similar interests (Perugini, Gonçalves, & Fox, 2004), and can have a self-serving role as these sites allow people to filter information as a means of maintaining harmony (Zhang, Merolla, Sun, & Lin, 2012). The Korean sample's stated interest in successes presumably reflects a need for mechanisms bolstering the esteem of this group.

South Korea has had the highest suicide rate in the world, and Pasifika have lower reported suicide rates than Pakeha in NZ. A comparison of these ethnic groups is liable to offer insights as to mechanisms contributing to suicide in NZ. In the present study, Korea as the country with the higher suicide rate also had the lowest national pride, preferred that high achievers fail and not be rewarded, and seemed to be most interested in achievement related information. Unfortunately based on the present data, such interest in achievement could also reflect a form of censure. By contrast, Pasifika with the lower suicide rates had higher ethnic pride, were the most supportive, and least likely to favour the failure of high achievers.

Given that levels of support in NZ Pakeha reflect differences in national pride, it would seem that instilling greater levels of pride in New Zealand and its achievements is a useful method of increasing support and lowering suicide rates in this population. However, attempts to simply increase self-esteem to the neglect of other factors such as self-efficacy might be self-defeating (Baumeister, Smart, & Boden, 1996) as it could encourage "entitlement" (Lange, Crusius, & Hagemeyer, 2016; Lange, Paulhus & Crusius, 2018). Given concerns about the potential contribution of deservingness, there might also be a need for greater education and an emphasis on skills to address effective decision making (Kim, Phillips, & Ogeil, 2022) or levels of competence (Feather, 2012) and perhaps reduce perceived inequity and entitlement (Marques, Feather, Austin, & Sibley, 2022).

The present data suggest that a greater willingness to support others is linked to pride in ethnic identity. This is in keeping with previous comparable findings for Māori (Williams, Clark, & Lewycka, 2018), but the present study specifically points to the potential role of social support. This is most clearly demonstrated in the Pakeha data, where pride and support covary, and we feel is likely to contribute to the differential suicide rates. Koreans were unlikely to support others and have higher suicide rates, whereas Pasifika were more willing to support others and have lower suicide rates in NZ.

In particular, the need to create a more supportive and civil internet is illustrated dramatically by the high rates at which very vulnerable people are apparently baited (51%, Smith, Dzik, & Fornicola, 2019) and the high fatality rates associated with webcam suicides (77%, Phillips & Mann, 2019) compared to attempts from tall buildings (33%, Mann, 1981) and indicates an urgent need for contingent forms of online support (Barak, 2007). Given the deplorable tendency for groups to bait rather than support vulnerable people, the present data provides cause for concern in those groups (i.e. Koreans) with a higher preference for achievers to fail and reduced tendency to reward high achievers (Marks, 2020), and may in part to contribute to higher suicide rates in these countries (Lee, 2016; Lee, Park, Lee, Oh, Choi, & Oh, 2018).

Limitations

For ethical reasons the present study considered "support" and willingness to upvote others. Indeed, not all websites allow downvotes. Although it is expected that

the Favour Fall scale would predict levels of online abuse, this is not guaranteed. Groups with lower levels of pride exhibited lower levels of support and seemed to spend more time bolstering their esteem online (Miller & Ross, 1975; Smith, Fabrigar, & Norris, 2008), but it is likely that such behaviours are situationally dependent, and may also vary in response to challenges to the "in group" (Leach & Spears, 2008; Leach, Spears, Branscombe, & Doosje, 2003).

In addition, our Pasifika sample were a heterogenous group based in NZ, and the observed patterns are liable to differ from those from specific Pacific island populations. For instance, levels of suicide in Samoa can be appreciably higher (World Health Organisation, 2022). Indeed, given the differences in suicide rates across specific countries and jurisdictions, it is likely that cultural differences (Varnum, Grossmann, Kitayama, & Nisbett, 2010) and pressures upon the individual to "approach" achievements are typically balanced against regional levels of support and the group's tendency to censure individual effort.

It is also important to acknowledge the multiple determinants of behaviours such as suicide. Social support, pride and perhaps competence may be important factors contributing to resilience, but any consideration of suicide will need to acknowledge that multiple factors contribute to the behaviour, such as substance abuse, impulse control, religious admonishments and legal constraints (Bertolote & Fleischmann, 2002).

Future Research

The present study did also consider Māori, inviting them to indicate their agreement with the Whakatauki - Kāore te kumara e kōrero mō tōna ake reka. However response rates were low, and Harrington and Liu (2002) have previously considered this ethnic group. Harrington and Liu (2002) used a shortened Tall Poppy scale on a sample of 88 Māori and found higher Global Self Esteem, but no differences on Favour Reward or Favour Fall scales. Conceivably, given higher suicide rates in Māori (https://mentalhealth.org.nz/suicide-prevention/statistics-on-suicide-in-new-zealand), the present methodologies could be extended to a larger Māori sample, but with specific emphasis upon the willingness to support others online.

The present study touched upon the issue of deservingness by using a Decisional Self Esteem scale. As a component of the Melbourne Decision Making Questionnaire (Mann, et al., 1998) it begs the question as to whether people with inferior decision-making styles would prefer that high achievers fail. Certainly there are indications that the less able have little idea as to the mechanisms and context required to produce correct answers to problems (Ball, Mann, & Stamm, 1994; Kruger & Dunning, 1999), and Major Depressives have an impaired ability to weigh the expectancies and values required for some decisions (Radford, Mann, & Kalucy, 1986). However, the use of correlational methods sacrifices a degree of control and prevents a systematic analysis of phenomena.

Previously participants have been presented with vignettes (Feather, 1989), to allow better manipulation of contributing factors. For instance, to tease apart the roles of rivalry and deservingness future research could consider different cultural groups and assess levels of support for individuals belonging to an in-group or out-group, perhaps signified by linguistic ability (e.g. fluent or non-speaker). Alternatively, groups with different levels of expertise could be examined. One wonders whether high achievers would themselves be more (or less) forgiving of a transgression when they have an understanding of the pressures and other factors contributing to success.

Conclusions

As South Korea has had the highest suicide rate in the world, and Pasifika have had lower suicide rates than Pakeha in NZ, a comparison of these ethnic groups was undertaken to offer insights as to mechanisms contributing to suicide in NZ. Differences in the willingness of ethnic groups to support others online were examined.

The present data suggest that a greater willingness to support others is linked to pride in ethnic identity. This is most clearly demonstrated in the Pakeha data, where pride and willingness to support others covaried. We feel this likely to contribute to the different suicide rates. Koreans were unlikely to support others and have higher suicide rates, whereas Pasifika were more willing to support others and have lower suicide rates.

The Tall Poppy scale was used to examine attitudes towards high achievers. The Tall Poppy scale could possibly indicate the degree of censure of high achievers, and predict interest in achievement related information online, but levels of online support also seem to reflect perceived group membership.

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Psychologists' experiences of burnout in Aotearoa, New Zealand: a nationwide qualitative survey

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This study sought to understand the experience of burnout in a sample of 141 registered psychologists in Aotearoa New Zealand. Participants were recruited through professional boards and associations. The majority were women, and worked in private practice or government-funded roles. Reflexive thematic analysis revealed three broad themes inclusive of social, personal life and structural factors. Psychologists described currently employing a range of self-care techniques to protect against burnout, and noted professional supervision and collegial bonds as protective factors. Systemic issues such as overwork, high demand and poor workplace experiences were negatively impacting their professional wellbeing, many of which compounded, such as higher demand leading to longer waitlists, and then to higher severity and even longer waitlists. Implications for both psychologists and employers are discussed.

Keywords: New Zealand Psychologists, Professional Quality of Life, Resilience, Burnout

INTRODUCTION

Burnout is a gradual-onset negative psychological phenomenon associated with work, which commonly affects the professional lives of psychologists (Dreison et al., 2018). It is associated with poorer patient outcomes (Delgadillo et al., 2018), and a range of negative consequences, including high job turnover, depression, stress and clients disengaging from treatment (Evans et al., 2006; Maslach & Jackson, 1981; Rupert et al., 2015; Paris & Hoge, 2010; Yang & Hayes, 2020). Recent research established that psychologists in Aotearoa New Zealand report high average rates of burnout, secondary traumatic stress, stress and depression, and low rates of resilience (Kercher & Gossage, 2022). However, little is known about psychologists' own understanding of and experiences of burnout, and what protective factors psychologists employ to counteract the effects of burnout.

Defining Burnout

Burnout has been conceptualised in terms of three dimensions: emotional exhaustion, depersonalisation, and sense of inefficacy or lack of personal achievement (Awa et al., 2010; Maslach, 2003; Maslach & Jackson, 1981). Burnout has been differentiated from either exhaustion or general job stress, due to its unique components of cynicism, detachment and self-inefficacy (Maslach, 2003; Schaufeli et al., 2009). Depressive symptoms of anhedonia and low mood correlate with the emotional exhaustion and depersonalisation factors of burnout (Bianchi et al., 2015). However, burnout has a distinct symptom profile as it is centred on the workplace (Maslach & Leiter, 2017), and has unclear causal links with depressive symptoms (Koutsimani et al., 2019; Tóth-Király et al., 2021). Burnout also strongly correlates with overall psychological distress symptoms (Goldhagen et al., 2015).

Two prevailing theories explain the concept of burnout: the Conservation of Resources (COR) model (Hobfoll, 1989) and the Jobs Demands Resources Model (JD-R) (McCormack et al., 2018). The former proposes that burnout is a response to inadequate job resources (Halbesleben et al., 2014); whereas the latter links the exhaustion component of burnout with high job demands, such as time pressure and workload, while the depersonalisation aspect is explained by a lack of job rewards, such as peer feedback and salary (McCormack et al., 2018).

Psychologists' Experiences of Burnout

Previous estimates of burnout rates vary from between 20% and 67% of psychologists (Morse et al., 2012; O'Connor et al., 2018). Several factors have been identified as influencing psychologists' experience of the severity of burnout, including organisational factors, client factors, and personal factors (Simpson et al., 2019).

Organisational factors that predict burnout include higher job demands with few resources, lack of control, longer hours, lack of rewards such as pay or acknowledgement, poor community, lack of job fairness and ethical conflicts (Simpson et al., 2019; Paris & Hoge, 2010; Rupert & Morgan, 2005; Yang & Hayes, 2020). Client factors such as working with chronic or complex patients (Simpson et al., 2019) and dealing with more negative client behaviours (i.e. antisocial or inappropriate client behaviours) correlated with higher levels of burnout (Rupert & Morgan, 2005). Many organisational risk factors for burnout have been identified across a variety of healthcare professions, including factors such as a lack of ongoing training, limited access to supervision and an unsupportive work environment (e.g., Larsen & Stamm, 2008).

Personal factors influencing practicing psychologist burnout include Early Maladaptive Schemas (EMS): dysfunctional behaviours and core beliefs about the self and the world which develop early in life (Simpson et al., 2019). For therapists, these commonly include unrelenting standards (i.e. an expectation of high standards of one's own behaviour, not applied to other

people) and self-sacrifice (i.e. the belief that others' needs are much more important than one's own). However, the schemas most related to burnout were abandonment, mistrust/abuse, and emotional inhibition (Simpson et al., 2019). Personal factors associated with higher likelihood of burnout include low self-esteem, an external locus of control, low mental resilience, and Type A personalities (Maslach & Leiter, 2017).

A number of protective factors have also been identified, including peer social support, being a solo practitioner, and age or higher years of experience (Rupert & Morgan, 2005; Ballenger-Browning et al., 2011). However, this may reflect a survivorship effect, wherein those who burnt out left the profession early, while those who had resilience remained (Rupert & Morgan, 2005).

Some strategies proposed to reduce burnout among psychologists includes better salaries, opportunities for promotion, routine screening of psychologists for burnout, and social events to increase peer support (Schaufeli et al., 2009). Most research that proposes solutions focuses on methods to reduce negative symptoms of burnout, instead of preventative positive psychology measures (Eckleberry-Hunt et al., 2018), however mindfulness has also been suggested as a protective factor for therapists (O'Donovan & May, 2007).

Psychologists' Quality of Life in Aotearoa

In Aotearoa New Zealand, psychologists' high levels of compassion fatigue (burnout and secondary traumatic stress) were linked with stress, depression, COVID-19 related stress increases and working with at-risk clients, while compassion satisfaction, additional supervision and self-employment appeared to be protective. Compassion Satisfaction rates were associated with resilience, additional supervision, self-employment, 16-20 years of experience and low Compassion Fatigue. Perceived workplace support, personal stressors and support were not related to professional quality of life (Kercher & Gossage, 2022).

Prior to Kercher and Gossage (2022), only limited research had been undertaken examining Aotearoa New Zealand psychologists' experiences of burnout, or compassion fatigue. One study of resilience and well-being reported high levels of compassion satisfaction and low levels of compassion fatigue some years ago (McCormick, 2014). In that study, psychologists' negative professional quality of life was strongly correlated with maladaptive coping skills and work stressors (McCormick, 2014). Psychologists reported several factors influencing their positive professional quality of life, including openly discussing workplace stressors, needs for self-care and positive psychology interventions, therapist-client boundaries, improved supervision and to address professional isolation, while also recognising a greater need for psychologists to engage in their own personal therapy (McCormick, 2014). Two further studies investigated psychologists' experiences of secondary traumatic stress in an Aotearoa New Zealand context. These studies focused on the relationship between secondary traumatic stress and vicarious post-traumatic growth (VPTG), involving 72 clinical psychologists who work primarily with trauma (Stapleton, 2017) and 70 psychologists working in any speciality (Manning-Jones et al., 2016). The former study concluded that **post-traumatic** cognitions were more likely to be experienced by Aotearoa New Zealand trauma-focused psychologists who work longer hours (but not other factors related to the profession), while the latter found that psychologists were the mental health profession least likely to experience negative outcomes due to secondary traumatic stress, and most likely to utilise coping strategies.

The only qualitative studies of Aotearoa New Zealand psychologists had other focuses, where burnout was identified as a negative influence: the recruitment and retention of Māori staff in Child and Adolescent Mental Health Services (CAMHS) (*n*=16, Hemopo, 2004), retention of educational psychologists (*n*=65, Jimerson et al., 2009) and as a barrier to psychologists' professional competency and ongoing training (*n*=6, Brennan, 2018). Psychologists' personal experiences and beliefs about burnout are therefore unknown. A workforce survey was conducted in 2017, where NZ psychologists reported leaving their roles where organisational processes were poor, particularly in public sector roles, and feeling unvalued, with high caseloads, long waitlists and insufficient salaries (Psychology Workforce Task Group, 2017). Burnout and compassion fatigue were not assessed.

Among the wider mental health workforce in Aotearoa New Zealand, psychiatrists recently reported that their workloads had become significantly worse in recent years (ASMS, 2021), and many general practitioners reported their plans to leave the workforce within the next 5-10 years, most notably a large cohort who were reaching the age of retirement (RNZCGP, 2021). Clinical psychologists noted extreme demand for services, with waiting times in excess of three months standard for more than half of clinical psychologists surveyed (Skirrow, 2021). The COVID-19 pandemic has increased demand for mental health services both worldwide and in Aotearoa New Zealand (Every-Palmer et al., 2020; Gasteiger et al., 2021), where demand and capacity were already serious concerns (Allison et al., 2019; Ministry of Health, 2021).

In this context, the current research was part of a cross-sectional survey of professional quality of life and related factors among psychologists in Aotearoa New Zealand, conducted in 2021 during the COVID-19 pandemic. This study aimed to understand the experiences of psychologists, considering their ideas about burnout, contributing and protective factors.

METHOD

Study Design

The intention of the current study was to collate a wide range of New Zealand psychologists' experiences, opinions and concerns regarding burnout, to develop a greater understanding of the range and commonalities of experiences across this group. Reflexive Thematic Analysis (TA; Braun & Clarke, 2021) was used to analyse personal accounts and to develop insight into how psychologists understood burnout as a concept, and how they related to this in their own lives.

Psychologists were the focus of this research, due to the relative consistency of their role, lengthy training and accreditation process, and consistent practices under the

Table 1. Participant demographics

Demographic	Percentage
Women	90%
Men	10%
Non-binary/gender diverse	0%
Pākehā/European	80.7%
Asian	2.8%
Māori	1.4%
Other ethnicity	15.1%
Children at home	40.4%
Married/de facto	68%
Clinical psychologists	83.7%
General scope psychologists	8.5%
Counselling psychologists	1.4%
Educational psychologists	2.1%
Government and health-funded role	45.4%
Private practice role	42.6%
Other roles (including ACC, non-government, private industry, education)	12%

Code of Ethics. **Practising** psychologists are also a population who have a pre-existing understanding of burnout, quality of life and psychological distress, both in terms of how these concepts impact their clients' lives, and how they impact their own professional lives.

The key assumption of the study was that psychologists would have a pre-constructed idea of burnout, what they believed were causative factors, what they saw as factors that improved experiences of burnout, and would willingly share these perspectives and experiences in a survey. An assumption of the survey analysis was that these impressions and reactions could be interpreted from text responses to open survey questions (as opposed to in-depth interviews), and that the responses would form an aggregate cohesive view of the same subjective issue presenting in their lives.

The study was conducted in accordance with (*AUTEC* reference number 21/184 – approval granted on 16 June 2021), and formed a part of the Psychologists' Professional Quality of Life in Aotearoa New Zealand survey.

Participants

Volunteer participants were recruited through the New Zealand Psychologists Board (NZPB), the New Zealand College of Clinical Psychologists (NZCCP) and New Zealand psychologist social media groups. All participants self-identified as registered psychologists from within New Zealand. Survey responses were anonymous. Participants were sent a link to the study either through a monthly newsletter, a mass email or a social media post in a professional group.

Of the participants in this study (n = 169), 141 completed the qualitative questions, with the remainder missing data and excluded from analysis. This represented an estimated 3.8% of the workforce who held an annual practicing certificate in 2021 (New Zealand Psychologists Board, 2021). Participant characteristics are reported in Table 1.

The range of ethnicity seen here is similar to the results of the *Aotearoa New Zealand Psychology Workforce Survey* (2016), which identified 90% of the workforce as Pākehā/European New Zealander, 3% Māori and 1% Pasifika. The median number of years of psychological experience was between 11 and 15 years, with a fairly even distribution. The largest two groups were those who had between 0 to 5 years of experience and those with 20+ years (26.2% and 29.8% respectively). Responders' age brackets were evenly distributed between the age brackets 26 to 55, with fewer responders over 56 and the median age being in the 41 to 45 age bracket. 40.4% were parents with children living at home, and 68% married or in de-facto relationships.

Clinical psychologists were **over-represented** compared to general-scope, counselling or educational (83.7%, 8.5%, 1.4% and 2.1% respectively), compared to 62% indicated in the 2016 survey. 57.1% of responders were based in a major city, with 27.6% psychologists practicing from smaller regional centres, and 7.9% from rural areas of New Zealand. 42.6% of respondents worked in a private practice, 45.4% in government and health-funded organisations, and the remainder in ACC, non-government and private industry roles.

Procedure and Materials

Participants completed an online survey using the research software Qualtrics. They were asked two open-ended questions relating to burnout: "From your personal experience, what factors do you think influence psychologist burnout?" and "Do you have any techniques that you use to protect yourself from burnout?". The two questions were formulated to elicit differing perspectives from each psychologist: the former investigating how psychologists saw burnout as a factor that impacted the profession as a whole and queried causes, while the latter investigated how psychologists interacted with the idea of burnout on a personal level and queried protective strategies. After the survey was completed, counselling and support links were provided.

Data Analysis

Themes and concepts were identified using an iterative process, following the guidelines of Braun & Clarke (2021). The primary researcher identified with the subject, having experienced burnout in a professional context outside of psychology. Reflexive thematic analysis acknowledged this potential subjectivity with both authors reviewing the codes and resulting themes independently.

The participants responses were approached with a reflexive stance. The initial step was a familiarisation process with the participants' responses, after which

initial codes were generated, to inductively build a picture of how psychologists viewed burnout. Themes were identified both in terms of explicit content and contextual evidence. Over time, broader themes of how psychologists viewed and experienced burnout were developed, with additional participants' responses adding clarity on what aspects were commonalities among the wider group, or how participants diverged in their experiences. After a month, the data was revisited to allow time for new perspectives to uncover differing themes. After data saturation had been achieved and no new themes or nuances were identified, axial coding was used to draw connections between thematic content. At the end of this process, major themes were constructed from the data, and the overarching themes of each question were compared to each other. Once the inductive process had been completed, a randomised sample of individual participants' responses was chosen and their responses were checked against the overarching themes, to ensure that the themes genuinely represented individual perspectives.

ANALYSIS AND COMMENTARY

The participants provided a consistent picture of what they felt burnout to be: a challenge in the workplace that affects both professional and personal aspects of their lives. Burnout was seen as a common and reoccurring aspect of the participants' professional lives, that required monitoring, the use of techniques to address the symptoms, and were an indication that changes needed to be made to rectify the situation. Three overarching themes were apparent in from the data from the thematic analysis: feedback and social connections, self-care and personal factors, and structural/environmental factors contributing to burnout. Participants were not given a word limit for responses to each question. The majority of respondents wrote brief sentences or lists to respond to each question; with a few participants giving extensive thoughts and opinions of several hundred words.

Feedback and social aspects of burnout

Participants widely suggested that a lack of social connection and professional support strongly influenced the experience of burnout, and that collegial support and good professional supervision were factors that could prevent burnout. Participants described situations where they perceived social pressure not to discuss any difficulties:

> *"Despite the expressed invitations to be transparent, there still exists an unspoken culture (to my mind) which requires us to do more, be more, and be good at it immediately."* (female clinical psychologist, private practice, 20+ years experience).

In some cases, psychologists reported being unable to form collegial bonds due to the sheer amount of work that was required for them to complete, and for solo private practitioners, difficult due to professional isolation:

> *"Do not isolate, find safe people to talk to authentically about burnout and formulate coping."* (early career female general psychologist, private practice).

Team dynamics was typically seen in a positive light, however many participants reported problematic situations as members of a multi-disciplinary team. In these contexts, many psychologists reported feeling undervalued, as their co-workers and managers lacked understanding of a psychologist's role and training (especially in cases where a person was the only psychologist on a team).

Overall, psychologists placed strong value and emphasis on the importance of the relationship with their clinical supervisors in preventing burnout.

> *"I am very aware that I need additional supervision when I break any of the [self-care rules] that I've made for myself."* (female clinical psychologist, 20+ years experience, private practice)

Peer and collegial networks were valued for their ability to debrief around both clients and systemic issues.

> *"[Protective factors include] Using supervision proactively, and setting up formal or informal peer supervision between individual supervision sessions."* (male early career psychologist, ACC funded service)

> *"Clinical Supervision - regularly seek feedback around caseload and complexity, raise difficulties when thoughts around work intrude in my home time, raise times where my paperwork gets out of date/starts to bogs me down"* (female early career clinical psychologist, government/health service)

Personal Characteristics Affecting Burnout

Personal characteristics were seen as a major influencing factor by psychologists, who particularly described a lack of appropriate self-care, perfectionism, impostor syndrome, and that addressing these issues was protective against burnout.

> *"I have begun to accept that I do not need to reach perfection with each piece of work that I do, I have sought help from other professions - advisors to create balance in my life."* (female clinical psychologist, 20+ years experience, private practice)

Psychologists frequently discussed the positive effects of self-care, including exercise, sleep hygiene, relaxation, family and social connections, pets and a connection to nature.

> *"[Managing burnout is] a full time job! Sleep, meditate, swimming in cold water, eat well, quiet weekends. I find that since covid I need much quieter weekends to recover from my work and am more prone to isolating myself."* (female clinical psychologist, mid-career, private practice)

Of these techniques, many participants reported activities such as swimming, yoga and gardening that incorporated multiple aspects of exercise, social connection, the outdoors and mindfulness, as being the most beneficial things to combat burnout symptoms. The most frequently identified personal life factors were a lack of self-care and a need to create strong barriers between work and home.

Some participants noticed that they tended to rely more on self-care techniques in times when they felt that they at risk of burnout, while others felt that if they were experiencing burnout symptoms, their usual self-care techniques became less effective.

"[Psychologists become trapped] in a cycle where they cannot easily proactively respond to their burnout by engaging in the factors we know help with burnout (e.g. organisational commitment, social complexity, caring for physical health and self care)." (early career male clinical psychologist, ACC funded service)

"I know it in theory, difficult in practice when I am too busy" (female clinical psychologist, mid-career, private practice)

Separation from work was considered a strong theme for self-care, such as holidays in distant locations, hobbies and interests outside of psychology, and breaks from working in the industry.

"I do things that connect me to things that are joyful and connect me to others socially" (female clinical psychologist, 20+ years experience, government/health funded service)

Many psychologists described using psychologically-informed techniques themselves, such as incorporating ACT, CBT, self-compassion, behavioural activation and reframing techniques.

"I utilise a lot of metacognitive therapy strategies for myself to not get caught in rumination or having work impact my home life" (male clinical psychologist, early career, government/health funded service)

"My poor stress management acts as a reminder that my clients may have the same trouble... and then I feel more compassionate towards them and myself!!" (female neuropsychologist, mid-career, private practice)

Self-care was often seen as a skill that needed to be taught and developed over time.

"Training programmes…not emphasising the importance of self-care, imposter syndrome and pressure as a psychologist to show you have it all together." (early career female clinical psychologist, government/health funded service)

"I felt burnt out last year and this year have really focussed on trying to have a different attitude. It doesn't always work, but I'm bouncing back more quickly." (female clinical psychologist, mid-career, government/health funded service)

Workplace, Structural & Environmental Factors

Psychologists commonly reported that workplace, structural and environmental factors would lead to burnout.

"Good workers are not valued, and problematic workers are not addressed or behaviour is reinforced. No clear structure or processes, lack of adherence to Te Tiriti especially for Māori clinicians" (female clinical psychologist, mid-career experience, government/health funded service)

"I didn't realise how bad it was until I left. It was an environment where staff cry a lot at work so I assumed this was normal." (female clinical psychologist, mid-career, private practice)

Participants who described having overcome burnout often discussed how addressing workplace and environmental factors were crucial factors in doing so. Their suggestions were clear and specific – reducing hours, being boundaried, self-care, social and supervisory support.

"I came close to burnout…and made a series of changes that have really helped…have reduced my daily case load, work 4 days a week, do lots of nature based activities out of work time, and belong to a small group of trusted colleagues who support each other" (female clinical psychologist, 20+ years experience, private practice)

High caseloads and overall caseload management were identified by the majority of respondents, many seeing high caseloads directly influencing the severity of their clients' issues.

"The backlog of demand – the endless stream of people needing help – the longer the wait the more complex and stressed the situation by the time they are seen. Can feel like trying to climb uphill in the face of an avalanche." (female educational psychologist, 20+ years experience, private practice)

"High caseloads...not enough time to do paperwork and particularly planning for sessions. Needing to be a therapist, case manager and an administrator." (early career female clinical psychologist, government/health funded service).

Many private psychologists also described waitlists as an additional burden, often feeling guilt and frustration at not being able to provide prompt care, and appreciated support to alleviate this.

"I have a PA. Without her I would have burned out a long time ago! She does all my invoicing and appointment scheduling. She says "no" in my behalf (and is very kind about it). She protects me from being sucked in by someone's story or their complaint that there are no available therapists." (female clinical psychologist, mid-career, private practice)

Psychologists reported that a break-down between the boundaries and distinction of work and home was a major contributing factor, and that building stronger boundaries around work-life balance greatly benefited their **well-being**.

"…having to work evenings and weekends to keep up with case notes, reports and emails, to the extent that I don't really have an outside life to balance it all out." (female clinical psychologist, 20+ years experience, private practice)

"I have a clear separation of work and home; use my travelling home time to process the events of the day; try not to work outside of my paid work hours (or take time in lieu if I have had to alter my work hours); have hobbies and interests not associated with work." (female clinical psychologist, mid-career, government/health funded service)

Psychologists reported that feelings of powerlessness and lack of autonomy in the workplace increased experiences of burnout.

> *"High expectations, high degree of responsibility but little power to make decisions."* (female clinical psychologist, 20+ years experience, currently in private practice))

Many employed practitioners noted a mismatch between the organisational values or metrics and their own, such as focusing on efficiency, number of patients seen and billing over safe practice, or an excessive focus on the medical model.

> *"In my private practice I can set limits that work for me, be guided purely by best practice, my code of ethics and the needs/preferences of my clients and their families rather than bureaucratic systems designed by administrative types, psychiatrists and allied professionals who do not know what psychologists do and need or what service users need."* (female clinical psychologist, early career, private practice)

Many psychologists reported feeling undervalued, and that their roles as psychologists were poorly understood.

> *"[lacking a] sense of support from the team to practice as a psychologist rather than as a case manager – often not supported to work in a way consistent with psychology."* (early career female psychologist, government/health funded service)

> *"Lack of understanding of the difference between a psychologist and other disciplines, such as occupational therapy, social work and nursing."* (female clinical psychologist, early career, government/health funded service)

> *"Organisation regarding psychologists as expensive and wanting to replace psychology positions with cheaper professionals to employ, despite waiting lists for psychology"* (female clinical psychologist, 20+ years experience, government/health funded service).

> *"HR and corporate jobs get paid more and get more respect than a clin psych, as everyone seems to think they can do what a psych does."* (female clinical psychologist, mid-career, private practice)

DISCUSSION

Psychologists in Aotearoa New Zealand described experiences of burnout linked with high caseloads and waitlists, a lack of autonomy in the workplace, isolation, social pressures and support. These issues are consistent with those reported by psychologists globally (Ballenger-Browning et al., 2011; Paris & Hoge, 2010; Rupert & Morgan, 2005; Simpson et al., 2019; Turnbull & Rhodes, 2021; Yang & Hayes, 2020). Well-implemented self-care regimes, positive collegial relationships and supervision (both external and within-organisation) were reported to be crucial protective factors against burnout among psychologists, congruous with research indicating that the clinical supervision relationship is associated with a lower instance of burnout, especially higher quality supervision relationships (Jonson & O'Connor, 2020; Livni et al., 2012). This effect was seen recently in New Zealand, where psychologists who received more frequent, and especially ad hoc supervision, had better professional quality of life (Kercher & Gossage, 2022).

Thematic differences were seen when comparing the responses to the two prompting questions. While discussing personal protective measures against burnout, psychologists tended to focus on self-care, however when discussing causes of burnout on a systemic level, a lack of self-care was not typically identified. Similarly, while a systems-based view encouraged discussions of operational changes or personal factors in other psychologists' lives, but psychologists were much less likely to identify these in their personal management of burnout symptoms where respondents largely focused on their own positive self-care strategies. When discussing others' experiences, participants were more likely to discuss personal vulnerabilities, and to attribute their own difficulties to job-related factors external to themselves.

Several negative cycles were identified within psychologists' self-reports: situations where negative factors could accumulate over time. Psychologists report that higher demand led to less time where support could be sought and collegial relationships developed, increasing the likelihood of experiencing burnout symptoms. Higher patient severity meant psychologists needed to spend more time with clients, which led to fewer opportunities for psychologists to see new clients. Growing waitlist times would then impact future clients, who increased in severity while being waitlisted for a longer time. This is consistent with reports of treatment delays compounding demand for crisis and hospital services in Aotearoa New Zealand (Cardwell, 2021; Jatrana & Crampton, 2021; New Zealand Government, 2018). Staff turnover was also a negative cycle identified by the participants: staff who felt overworked, would experience burnout and leave their positions, placing greater pressure on remaining staff. These remaining staff members are placed under greater pressure, and in turn are more likely to burn out. Once participant noted a similar situation in a larger organisation, where senior staff would leave, meaning more junior staff would be assigned more challenging cases, begin to feel overwhelmed with less senior staff support, and then themselves resign. This participant also noted that this left few opportunities for mentoring and guidance within the organisation. Other participants felt that larger organisations would task psychologists with the most complex cases, causing high stress and leaving no time for balance.

Implications

The results of this study suggest that the psychological community could benefit from the creation of more environments where collegial, social bonds can flourish, by investing in stronger supervisory relationships and where needed, identifying situations where supervision or collegial relationships are poor. Resounding feedback is that increasing the workforce will greatly alleviate many of the negative compounding factors. Significant improvements to psychologists' professional quality of life and experience of burnout may be possible through targeting specific problems that were identified as the causes of negative cycles, namely insufficient workforces and unmanageable demands. Workforce shortages have been well documented in Aotearoa New Zealand, with plans to address this underway (Ministry of Health, 2021). Many psychologists reported an intention to leave their

roles in workforce surveys, associated with high caseloads, long waitlists, insufficient salaries and dissatisfaction with organisational processes (Psychology Workforce Task Group, 2017). These factors were commonly reported in association with burnout and compassion fatigue here, suggesting an urgent need to address workplace factors to prevent both burnout and workforce attrition.

While inadequate self-care and personal characteristics were suggested as major contributing factors to psychologist burnout, focusing on improving these aspects purely from a personal responsibility lens is unlikely to be beneficial. Many participants in the study identified good self-care as a protective factor but noted that high workloads and stress often reduced their ability to properly implement self-care regimes – they did not have the time, resources or energy to do so. Others felt that discussion of self-care and personal vulnerability was lacking in training programmes and workplaces. A number of participants reported that there were high expectations for psychologists to have well-functioning self-care regimes as a model for their clients, and not meeting this expectation negatively affected their **well-being**. Recent burnout research has proposed that taking a systemic, rather than individualised, approach towards self-care may be much more beneficial, such as by focusing on the early adoption and practice of self-care measures in training programmes and workplaces, prior to the development of burnout or secondary trauma (Butler et al., 2017; Rupert & Dorociak, 2019). Similarly, psychologists reported in earlier surveys that retention would be enhanced with supportive and skilled management practices, reduced demand-driven stress and career and salary development opportunities (Psychology Workforce Task Group, 2017).

Limitations

As with all voluntary self-report surveys, systemic and non-response biases can influence data and interpretation (Hemsworth et al., 2018; Walters, 2021). This survey had a good response rate in terms of the total population of **practising** psychologists in New Zealand, however the demographic make-up did not accurately reflect the population (especially in terms of a lack of Māori/Pasifika, male and gender-diverse participants). Burnout and low professional quality of life has been known to particularly affect Māori working within mental health occupations (Hemopo, 2004; Levy, 2002). Experiences more common among Māori, Pasifika, male and gender-diverse psychologists may have been underestimated here. As the open-ended questions were brief written survey items, there are inherent limitations on the richness of the data collected, compared with extended interviews. However, the relatively large number of responses here provides a wider perspective, as a benefit of the current approach. Future research should focus on deeper explorations of psychologists' perspectives, for example in prolonged interviews. The qualitative questions were asked after participants had completed measures of psychological distress, professional quality of life and resilience, such that participants may have been primed to consider these factors when completing the open survey questions. Despite these limitations, consistent themes emerged in comparable studies which used extended interviews (Alfrey, 2014; Hammond et al., 2018; Turnbull & Rhodes, 2021). As each individual participant was asked to consider multiple perspectives on professional burnout, this allowed for more than 260 unique responses between the survey participants, providing a wide and comprehensive snapshot of their perspectives.

Conclusion

This study provides an insight into the working lives of **practising** psychologists in Aotearoa New Zealand. Participants described feeling burned out, fatigued and stressed, and linked this specifically with caseload and workplace pressures, particularly where waitlists corresponded with increased severity and client difficulties. At the same time, psychologists find their work rewarding (Kercher & Gossage, 2022), and reported that good supervision and collegial relationships were protective against burnout. Given the increased demand on mental health services in recent years and scarcity of psychologists in Aotearoa New Zealand, it is crucial that we listen to psychologists in practice and focus on improving workplace support, access to supervision, time and support with colleagues, as well as facilitating self-care such as providing ongoing training, time for leisure activities and their own therapy as needed. Ultimately, increasing the workforce and reducing unsustainable demands on currently **practising** psychologists is essential, to ensure the provision of sustainable and high-quality mental healthcare in Aotearoa New Zealand.

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