



# New Zealand military Veterans' perceptions on health and well-being: A qualitative study

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## ABSTRACT

**Introduction:** The study “The psychological and physical health and well-being of New Zealand contemporary Veterans” represents one of the few large population studies conducted on contemporary Veterans in New Zealand. Included in this survey was an open-ended question allowing respondents to articulate their thoughts, opinions, or feedback on the Veteran experience. **Methods:** Responses were analyzed using qualitative content analysis framework informed by Mayring's (2022) eight-step content analysis process. A hybrid deductive–inductive approach was used to generate sub-themes from participants' responses, which were categorized under the World Health Organization's four domains of well-being (psychological, social, environmental, and physical). **Results:** In this study, responses from 1,037 Veterans were analyzed and put into 22 sub-themes and four overarching themes. While many participants expressed positive gains due to their military service, challenges in psychological, social, environmental, and physical well-being were evident. Positive outcomes included gaining educational achievements, career skills, and personal growth and development. Challenges included issues such as posttraumatic stress disorder, depression, anxiety, moral injury, identity confusion, internalized stigma, stereotyping, the strain of demanding work on family life, hearing loss, musculoskeletal problems, and concerns regarding toxic chemical exposure. **Discussion:** Veterans face challenges in all four domains of well-being. Despite encountering difficulties, there is a reluctance or social stigma associated with Veterans seeking help for their well-being concerns, compounding the challenges they face. Additionally, Veterans perceive a need for more accessible and effective support services.

**Key words:** health, qualitative, Veterans, well-being

## RÉSUMÉ

**Introduction :** L'étude intitulée *The psychological and physical health and well-being of New Zealand contemporary Veterans* représente l'une des quelques grandes enquêtes en population réalisées auprès des vétérans contemporains de la Nouvelle-Zélande. Une question ouverte en faisait partie, afin que les répondants puissent exprimer leurs réflexions, leurs opinions ou leurs commentaires sur l'expérience des vétérans. **Méthodologie :** Les réponses ont été évaluées d'après un cadre d'analyse de contenu qualitatif éclairé par le processus d'analyse de contenu en huit étapes de Mayring (2022). Une approche déductive-inductive hybride a permis de produire des sous-thèmes à partir des réponses des participants, classées en vertu des quatre domaines de bien-être (psychologique, social, environnemental et physique) de l'Organisation mondiale de la Santé. **Résultats :** Dans cette étude, les réponses de 1 037 vétérans ont été analysées et réparties en 22 sous-thèmes et quatre thèmes principaux. De nombreux participants ont exprimé avoir acquis des gains grâce à leur service militaire, mais éprouvaient des difficultés évidentes en matière de bien-être psychologique, social, environnemental et physique. Les résultats positifs incluaient le niveau d'instruction, les compétences professionnelles ainsi que la croissance et le développement personnels. Les difficultés incluaient des problèmes comme le trouble de stress post-traumatique, la dépression, l'anxiété, les blessures morales, la confusion d'identité, la stigmatisation internalisée, le stéréotype, le fardeau d'un travail exigeant sur la vie familiale, la perte auditive, les problèmes musculosquelettiques et les préoccupations découlant de l'exposition à des produits chimiques toxiques. **Discussion :** Les vétérans font face à des défis dans les quatre domaines du bien-être. Pourtant, une réticence ou une stigmatisation sociale est associée aux vétérans qui réclament de l'aide pour leur mal-être, laquelle s'ajoute à leurs difficultés. De plus, les vétérans affirment avoir besoin de services de soutien plus efficaces et plus accessibles.

**Mots-clés :** bien-être, qualitatif, santé, vétérans

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## LAY SUMMARY

Transitioning from military to civilian life presents practical and emotional challenges that often impact Veterans' sense of identity, health, family relationships, and social acceptance. Many Veterans struggle to reintegrate with their families and face difficulties accessing civilian support services that may not fully understand their unique needs. For this reason, collecting direct feedback from Veterans effectively captures both the barriers and supports for a successful transition. In this study, 1,037 New Zealand Veterans shared their experiences — both the positive outcomes, like gaining new skills, education, and personal growth, and the challenges. Veterans reported issues such as mental health struggles, identity conflicts, family strain, hearing loss, and concerns about exposure to harmful chemicals. Despite these well-being challenges across all areas of life, many Veterans hesitate to seek help due to social stigma or personal reluctance. Veterans strongly expressed the need for better, more accessible support services to ease the transition process.

## INTRODUCTION

In New Zealand, military Veterans can only access assistance from New Zealand Veterans' Affairs (NZVA) if they have undertaken "qualifying operational service" as defined by the Veterans' Support Act 2014,<sup>1</sup> and they are thus legally Veterans. However, military service can profoundly influence the well-being of all Veterans in positive or negative ways. Positive military experiences include a sense of purpose, the acquisition of new skills, the cultivation of social relationships, the process of maturation, and the adoption of healthy behaviours.<sup>2</sup> Conversely, exposure to combat and potentially morally injurious experiences can result in an increased risk of substance abuse, posttraumatic stress disorder (PTSD),<sup>3</sup> moral injury,<sup>4</sup> depression, suicide,<sup>5</sup> and other mental health and employment challenges.<sup>6</sup> In New Zealand, previous research suggests that some Veterans experience loneliness and isolation.<sup>7</sup>

Speaking of the New Zealand Veteran, Cardow et al. state that the "highly organised, collective soldier identity and its friction with the chaotic, individualistic civilian way of life results in transition culture shocks and feelings of alienation, abandonment and confusion."<sup>8</sup>(p. 384) With this statement in mind, the current study is based on the analysis of free-text responses obtained from a New Zealand cross-sectional survey. Accordingly, this study asks the following question: What themes emerge from New Zealand Veterans' perspectives on their health and well-being? The aim of asking this question is to deepen understanding of Veterans' subjective experiences, identify emergent or previously unexplored themes, and provide insights to inform future research and the development of responsive services and supports.

## METHODS

Data were collected via an online survey, with a postal option available on request. The Medals Database records those who have been awarded the Operational

Service Medal (OSM), providing a registry of those who would meet NZ's legal definition of Veteran. In June 2018, a link to the online questionnaire was sent by email to all currently serving regular and reserve New Zealand Defence Force (NZDF) members who were registered on the NZDF email system and who were holders of the New Zealand Operational Service Medal (awarded to Veterans after they have served on operations), numbering 3,874 personnel at that time. An introductory message calling for Veteran participation and a link to the questionnaire were also presented on the NZDF intranet landing page, which is a secure internal webpage from which all regular force personnel can access relevant work-related content, tools, and resources. Retired military personnel were invited to participate through posters distributed to reserve units and the 43 local social clubs identified by the RSA national office to be "Veteran active." In total, there were 1,009 online responses, yielding a 26% response rate, with an additional 737 completed surveys from those who completed a paper questionnaire. [Tables 1 to 3](#) provide a profile of the sample, for which the average age was 54 years (23–88 years of age). [Tables 1 to 3](#) provide a profile of the sample, for which the average age was 54 years (23–88 years of age). The investigation was approved by the Northern B Health and Disability Ethics Committee (17/NTB/118).

The quantitative survey concluded with a single open-ended question — "Is there anything else you would like to add?" — and the data were then examined in the present study. A total of 1,037 comments that were entered into this open-text comment box were deemed eligible for analysis on the basis of their content.

Coding was conducted by a postgraduate psychology student, a senior researcher, and a specialist in military medicine who also brought lived experience as a Veteran. This study followed Mayring's eight-step qualitative content analysis process.<sup>9</sup> First, the aim and focus of the analysis, both of which were grounded in

**Table 1.** Participants' war zone service and age group

Served in war zone			Prefer not to say	Total	% of total
	Yes	No			
Age group (y)					
Pre-1975	164	147	—	311	30%
60-69	62	95	—	157	15%
70+	102	52	—	154	15%
Contemporary Veterans	486	233	1	726	69%
20-29	15	21	—	36	3%
30-39	94	46	—	140	14%
40-49	182	71	—	253	24%
50-59	156	70	1	227	22%
60-69	39	25	—	64	6%
Prefer not to say	5	0	1	6	1%
Total	655	380	2	1037	

Note: Contemporary Veterans are estimated to be those born after 1956.

**Table 2.** Participant gender and ethnicity

	Ethnicity			None stated
	European	Māori	Other	
Gender				
Male	757	136	99	5
Female	93	17	4	1
Prefer not to say	10	1	3	1
Total	860	154	106	7

Note: Total does not add to number of participants due to those endorsing more than one ethnic category.

a review of the literature on Veteran well-being, were defined. Second, four deductive categories were established in alignment with the World Health Organization's (WHO's) well-being framework: psychological, physical, social, and environmental well-being.<sup>10</sup> Third, open-ended text box responses from the national Veteran survey were exported into an Excel spreadsheet, then each line item was coded line by line. Fourth, a pilot loop was conducted on 23% of the data, during which the coding scheme was collaboratively reviewed and refined with a second researcher to improve clarity and category definitions. Fifth, final coding was applied to the full data set using the revised framework. Sixth, the coded data were grouped into sub-themes and organized under the four superordinate categories.

**Table 3.** Participant military service

	Military service branch				None selected
	Navy	Air	Army	Multiple services	
Gender					
Male	184	210	539	22	8
Female	18	36	56	9	3
Prefer not to say	4	4	6	1	2
Total	206	250	601	32	13

Note: Total does not add to number of participants due to those endorsing two or more service categories (i.e., multiple services).

Seventh, an intra- and inter-coder reliability check was performed, including consultation with a professor specializing in military medicine and Veteran studies who also brought lived experience as a Veteran. Eighth, the overall findings were interpreted within the established framework to identify key patterns and novel insights relevant to Veteran well-being.

## RESULTS

The content analysis resulted in 22 sub-themes, which are detailed in Table 4, and structured using the four WHO domains of well-being:<sup>10</sup>

### 1. Psychological well-being

The WHO defines psychological well-being in terms of positive (e.g., joy, high self-esteem) and negative (e.g., depression, anxiety) emotions, as well as cognitive functioning.<sup>10</sup> Within the context of this study, personal fulfillment encompasses a profound sense of pride and accomplishment derived from serving one's country, adhering to a tradition of honour and duty, and making meaningful contributions to a larger cause:

There is pride in participating in something bigger than yourself and being among others who have experienced similar situations.

— Participant 475

Some participants struggled with mental and emotional difficulties such as suicide, guilt, and moral injury, expressing that multiple stressors over time contributed to a gradual weakening of their overall resilience and coping mechanisms:

Being deployed in a War certainly alters your emotional state and changes your moral perceptions. Some are capable of ignoring or overcoming such

states, but I believe they are persons who have a lower or more dysfunctional emotional state in the first place. Veterans are very prone to stressful events that may occur later in life such as divorce, family deaths, job loss, and so on. If they suffer a series of such events they weaken with each one and become very prone to ailments that are often life threatening.

— Participant 117

Personally, [I] know of four people that have talked about or contemplated suicide in this unit in the last two years.

— Participant 106

Participants deployed diverse coping strategies, providing valuable insights into their experiences, resilience, and ways they navigate the challenges associated with military service and its aftermath. These strategies included a positive mindset, family support, and psychotherapy.

## 2. Social well-being

Social well-being is defined by the WHO as an individual's subjective satisfaction with social and interpersonal relationships, including the adequacy of social supports.<sup>10</sup> Social challenges included Veteran identity, Veteran status, and public perception, followed by the transition back to civilian life, the negative impact on family relationships, camaraderie, Veteran support groups, and help-seeking behaviours. Several individuals expressed ambiguity about their legal Veteran status, as well as the idea of qualifying operational service and therefore of self-identity as a Veteran:

I am disappointed that the “system” differentiates between Veterans all because one person was selected to go to a certain operational position and another did not.

— Participant 181

Perception of Veterans vary widely, including assumptions about Veterans' ages, experiences, skills, and challenges. Some participants challenged these stereotypes, highlighting the lack of visibility for women Veterans and the assumption that Veterans are older and served in armed combat.

Several key findings highlight Veterans' challenges during the transition from military to civilian life; however, Veterans finding meaningful employment developed a sense of belonging and purpose. One participant reflected on the challenges of transitioning from combat or operational deployment to life in civilian society:

If you enter [the military] at a young age ... you are trained to behave and operate in a very particular way. That way ... is in stark contrast to how the rest of society operates. A failure to adjust and properly integrate is what leads many to spiral out of control.

— Participant 354

While Veterans appreciated their military experience, they were concerned about the psychological impact it had on their children and the stressful situations faced by partners:

My family suffers also when I am away for months on end, these are the people who get forgotten about.

— Participant 835

Despite the existence of support organizations, the stigma surrounding mental illness remains a formidable barrier, deterring individuals from openly acknowledging their struggles and seeking help:

Unfortunately, the very characteristics that make for good soldiers (or sailors and airmen) inhibits many of our number from asking for help. I waited for 25 years before asking for help and by that time the damage, especially to relationships and my state of mental health was already done. This attitude to hiding or ignoring problems still persists today, as I have discovered talking to younger Veterans, even to some still serving, and has much to do to not wanting to be seen as weak or disaffected.

— Participant 166

## 3. Environmental well-being

According to the WHO, environmental well-being is the perceived satisfaction and adequacy of environment conditions (e.g., pollution) and amenities (e.g., media, health care).<sup>10</sup> In the current study, environmental well-being encompassed sub-themes related to government support and welfare programs, health and safety within the work environment, health care provision during service, and the demands of the work environment. Several participants expressed frustration at bureaucracy, inconsistency in care, and lack of clarity regarding entitlements available to them in New Zealand.

In relation to health and safety in the work environment, participants raised concerns about health and safety issues related to exposure to lead paints, cleaning agents, electromagnetic radiation, insect repellents, and shift work:

I do think that Radio Frequency and Extra Low Frequency radiation health problems need to be

addressed, along with exposure to lead paints, cleaning agents and shift workers who worked under normal/bright lights at nighttime. Cancers, heart and respiratory problems, and melatonin deficiencies spring to mind — to name but a few.

— Participant 133

A demanding work environment and deployment stress were also discussed:

Work extremely long hours in my current unit. Last year the average was 72 hours/week. Busy week average was over 120 hours per week. Worried about the impact on mine and others health and well-being.

— Participant 106

The stress of being away from home/family has more of an impact than the stress of the work I carried out while deployed.

— Participant 626

Participants also expressed concerns about health care during service, including preparation for deployment, post-deployment debriefing, medical assessments, treatments, interventions to address injuries, illnesses, and psychological issues that may arise during active military duty.

#### 4. Physical well-being

Physical well-being captures how physical condition and function enables or restricts a person's quality of life.<sup>10</sup> Participants describe a wide range of physical health challenges attributed to their military service. These challenges ranged from acute musculoskeletal injuries and hearing loss to chronic conditions that developed over time. For some, these issues stemmed from direct combat exposure or traumatic incidents; for others, they were seen as the cumulative toll of maintaining high levels of physical fitness or the general wear and tear associated with the physical demands of being a soldier:

I do not blame the NZDF for my painful knees (2 × ACLs), migraines, headaches, arthritis in shoulders, poor hearing, failing eyesight, or occasional instable memories. The occupation of a Soldier takes its toll on your body and mind.

— Participant 553

The only health issues I have stem from the way our bodies got knocked around when we were young and being soldiers.

— Participant 333

Hearing loss attributed to military service was a frequently mentioned issue, with participants citing exposure to high-noise environments such as aircraft or weaponry as the cause:

Hearing damage appears to be affecting me the most. All my ex-RNZAF friends are the same. Constant ear ringing affects other things as well, concentration, irritability, able to converse without asking for repeat sentences.

— Participant 228

## DISCUSSION

The findings of this study underscore the complex and interconnected nature of well-being among Veterans — where psychological, social, environmental, and physical factors influence each other. For example, the disruption of social support systems — such as the loss of camaraderie or strained family relationships — was found to significantly impair psychological functioning. These interdependencies highlight the importance of adopting a multidisciplinary, systems-oriented approach in the assessment treatment planning of Veteran support services.

Age may also play a significant in how Veterans reflect on their military experiences and access support. Many participants in the study were older, and their responses often revealed a sense of acceptance, meaning making, and reflection. This finding aligns with Erickson's theory of psychosocial development, particularly the stage of generativity, where individuals focus on legacy, contribution, and life integration. Such perspectives may differ from younger Veterans who are navigating earlier stages of life. Future research could explore how life and age influence Veterans' well-being and help-seeking behaviours. Longitudinal studies could also provide insight into age- and stage-specific intervention needs, as well as insight into delayed-onset distress, posttraumatic growth, and long-term physical or psychological consequences of services.

### 1. Psychological well-being

The findings in this study reveal a dual experience among Veterans: On the one hand, many participants described the positive impact of military service, including the acquisition of pride in service, valuable skills, educational opportunities, and personal values, echoing previous literature.<sup>11,12</sup> On the other hand, a significant number grapple with a myriad of psychological challenges, such as PTSD,<sup>3</sup> moral injury,<sup>4</sup> and suicidal ideation.<sup>5</sup> Some participants described greater

**Table 4.** Number of participants endorsing the New Zealand military Veteran well-being themes and sub-themes

Themes	n	%
Psychological well-being	447	43
Personal fulfilment/purpose	283	27
Psychological challenges in military Veterans	75	7
Coping strategies	47	5
Psychological, other	21	2
Growth and development	15	1
Negative affect	6	1
Social well-being	383	37
Veteran status/identity	169	16
Perceived public perception, awareness, and acknowledgement	61	6
Sense of belonging to civilian life/successful transition	40	4
Impact on family relationships	36	3
Camaraderie	37	4
Support groups	23	2
Help-seeking behaviours	17	2
Environmental well-being	381	37
Government support and welfare programs	224	22
Health and safety in work environment	62	6
Health care during service	52	5
Demands of work environment	43	4
Physical well-being	90	9
Physical health conditions	63	6
Non-military physical issue	10	1
Toxic chemical exposure	9	1
Physical health, other	6	1
Positive aspects of military life	2	<1

psychological strain from civilian front-line work and pre-military early-life trauma than from military experiences. These issues underscore the importance of viewing trauma not as isolated to military or combat experiences, but as cumulative and continuous, and recognizing that trauma continuity may compound any unprocessed military trauma.

While many participants described significant psychological strain — including grief, trauma, and emotional distress stemming from military experience — a parallel narrative emerged around psychological strength and adaptability. In the face of significant psychological adversity, many Veterans demonstrated strong coping mechanisms and a resilient mindset. While resilience is a widely regarded psychological asset, the findings of this study suggest it can also operate as a double-edged sword. The internalization of mental toughness and

stoicism — qualities reinforced during training — often acted as barriers to seeking help post-discharge and ultimately leading to a deterioration in well-being. Among those who did pursue support, several participants reported negative or unhelpful experiences with formal support systems, citing a lack of psychological insight and access to meaningful care. These findings, along with previous research, underscore the need for specialized, culturally competent providers and effective treatment interventions for Veterans.<sup>7,11</sup>

## 2. Environmental well-being

Veterans in this study described a wide range of environmental stressors across the military life cycle. These stressors included bullying during training, chemical and loud noise exposure, gender-based harassment, leadership issues, demanding work environment, deployment

stress, dissatisfaction with debriefings after operations, and health care both during and after operations.<sup>12</sup>

Veterans' experiences suggest that environmental stressors are not limited to combat but are embedded within broader organizational systems. A recurring concern was the failure to validate or support non-combat injuries. The dissatisfaction with health care provision implies that support systems may be misaligned with Veterans' actual needs.

### 3. Physical well-being

Participants reported a range of chronic physical issues such as hearing impairment, musculoskeletal injuries, sleep disturbances, pain, and the repercussions of exposure to toxic chemicals. Noteworthy among these concerns are hearing loss and musculoskeletal issues, both of which are consistent with international research and suggest a clear link between military service and long-term health impacts.<sup>13-16</sup>

While a few acknowledged that maintaining operational fitness was beneficial, the majority described the physical demands of service as taking a toll, suggesting that the physical demands of military service — from repetitive strain to environmental exposures — have lasting consequences that extend beyond active duty. This finding suggests a need to evaluate and (if necessary) improve occupational safety standards, including the use and effectiveness of hearing protection and the mitigation of chemical exposure. Furthermore, long-term targeted monitoring of Veterans' physical health is essential, as unaddressed physical issues can undermine quality of life.

### 4. Social well-being

Social well-being was significantly shaped by the connection to others during and after service. Military camaraderie, while cited as deeply positive experience, was often contrasted with post-service social isolation and a sense of being misunderstood. The findings in this study corroborate international research, as participants cited the loss of identity, purpose, community, and difficulty in reintegrating into civilian society as consistent challenges.<sup>17-19</sup> In terms of informal social support, Veterans' family members play a crucial role in well-being, as family members provide support and encourage help-seeking behaviours. However, family members can also be negatively impacted by deployment stress. Notably, some questioned whether marriage breakdowns could be directly attributed to military experiences or unprocessed trauma. To enhance understanding of family dynamics, it

is imperative to delve deeper into the perceptions, coping strategies, and specific needs of family members.

Societal perceptions of Veterans play a pivotal role in influencing psychological well-being. The dual perspectives uncovered in this study — encompassing pride in service but also internal stigma — align with the broader discourse on conflicting attitudes within the general public toward Veterans.<sup>20</sup> Initial findings from this study indicate that recognition and respect from society contribute significantly to Veterans' pride. At the same time, negative perceptions can lead to adverse effects, inducing feelings of humiliation, shame, and anger.

Veterans' attitudes and behaviours regarding stigma as a barrier to seeking mental health support emphasizes the need to engage actively with Veterans and promote supportive environments for acknowledging and addressing mental health challenges.<sup>6,21</sup> Since undertaking this research, the NZDF has implemented career coaches, although research has still not explored the perspectives of transition coaches and the experiences of Veterans who enroll in transition support programs. Future research could incorporate Veteran attitudes toward mental health professionals, knowledge about available help, engagement with health care services and Veteran support organizations, barriers to seeking help, and factors influencing their continued engagement in therapy.

## STRENGTHS/LIMITATIONS

The primary strength of this study lies in its large sample size, which facilitates the generalizability of the results to a population with demographic characteristics akin to those of the study participants. However, a key limitation is the response rate among Veterans, which raises the possibility of sampling bias. The direction of the bias is difficult to determine, as responses may have been more likely from those experiencing either particularly good or particularly poor health, thus potentially limiting the generalizability of findings to the broader Veteran community.

Another limitation of this study is its cross-sectional design. As data were collected at a single point in time, causal inferences cannot be made, nor can changes in well-being be examined over time. Longitudinal research would be needed to evaluate how Veteran well-being develops within and across the psychological, social, physical, and environmental domains in order to better understand predictive trends, temporal dynamics, and potential causal relationships.

This is the first study of an open-ended comment component from the Veteran population in New

Zealand, and as such, it offers unique insights into an understudied group of Veterans. Using qualitative content analysis proved to be a robust method for scrutinizing open-ended text boxes and capturing the Veteran experience. However, a potential limitation is that the open-ended question or prompt could have been more precisely worded, aligning with distinct domains of well-being or addressing more specific topics such as moral injury or suicide.

## CONCLUSION

The results of this study highlight the challenges faced by Veterans in New Zealand and echo previous findings in both the New Zealand<sup>3,8</sup> and international literature.<sup>22</sup> While these challenges may parallel those experienced by Veterans in other nations, it is crucial to conduct research that specifically addresses the unique needs of Veterans in the context of their host nation. This approach should include a focus not only on higher-ranking or deployed individuals but also on all Veterans. For some, the broad impact of military service on social, psychological, environmental, and physical well-being emerges as a pervasive theme throughout this study, underscoring the imperative for multidisciplinary, holistic, and comprehensive intervention strategies. In line with the objective of this study, it has provided a compelling foundation for future in-depth research endeavours and offers valuable pathways to advance understanding and enhance the well-being of military Veterans in New Zealand.

## AUTHOR INFORMATION

**Margo O'Regan** holds a bachelor's degree of health science in psychology and a postgraduate diploma in counselling. She is a registered counsellor and full member of the New Zealand Association of Counsellors. Drawing on clinical experience from her counselling practice, she informs research on relationship dynamics, resilience, and mental health. She holds an interest in promoting well-being and strengthening support systems for military members, Veterans, and their families.

**David McBride**, PhD, MB, has a professional scope of practice in occupational and environmental medicine, a clinical discipline of which military medicine is a subspecialty. He has been an army reservist in logistics and medicine since 1973, but he may be getting a bit past it. A strong interest in the evidence base for practice has led to a researching and teaching career in occupational epidemiology and biostatistics.

**Simone Rodda**, PhD, is an Associate Professor of Psychology at the Auckland University of Technology. Her research

focuses on mental health and addiction, with expertise in mixed methods such as qualitative content analysis. She investigates theory-based behaviour change using brief, minimal interventions and digital health approaches. With 20 years of experience as a counsellor, service manager, and educator, she is committed to improving the lives of people affected by mental health and addiction.

**Daniel Shepherd**, PhD, specializes in health and well-being research. He has a special interest in the relationships between environmental factors, such as toxin exposure and noise, and psychological resilience and coping. Daniel has previously worked on the operationalization of well-being, working to promote the World Health Organization's Quality of Life instruments in New Zealand.

## COMPETING INTERESTS

The authors have nothing to disclose.

## CONTRIBUTORS

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## ETHICS APPROVAL

This study was approved by the Health and Disability Ethics Committees, Ministry of Health NZ, on September 22, 2017.

## INFORMED CONSENT

Informed patient consent has been secured from all patients whose personal information is included in the manuscript.

## REGISTRY AND REGISTRATION NO. OF THE STUDY/TRIAL

N/A

## ANIMAL STUDIES

N/A

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## PEER REVIEW

This manuscript has been peer reviewed.

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