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# The role of emotion regulation in decreasing alcohol harm for veterans

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## ABSTRACT

Using the socio-ecological model, this study aims to understand factors associated with alcohol misuse in veterans of the New Zealand Defence Forces, and identify approaches for reducing harm. Using interviews, veterans were asked to recount their relationship to alcohol, and provide a narrative of its use before, during and after military service. Seven themes were identified including bars and drinking as 1) social hubs; and 2) social lubrication; providing others with 3) duty of care; the military 4) consequences of harmful drinking; and use of alcohol as 5) emotion regulation strategies; with the impact of that on 6) Civvy street, and 7) family impacts. Duty of care in military drinking environments is a new theme to the literature. Introducing emotion regulation training throughout the personnels' career, from transition to becoming civilians and beyond, was identified as key to effective health marketing interventions.

## KEYWORDS

Veterans; alcohol; socio-ecological model; emotion regulation training; health marketing

## Introduction

Alcohol misuse represents a significant risk to health and overall quality of life, and can contribute to adverse effects on mental health and social adjustment, as well as lead to injuries, cancers, and other chronic diseases (Connor, 2015; Rehm et al., 2009). Prior research indicates that alcohol consumption has been normalised in the military not only as a coping mechanism, but as a part of social interaction, tradition, and military culture (Ames and Cunradi, 2004; Hamilton, 2015; Watterson et al., 2021; Young et al., 2018). This culture is further facilitated by an institutional environment that provides ready, often subsidised, access to alcohol (Ames

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and Cunradi, 2004, Hamilton, 2015). Some also feel peer pressure to engage in alcohol consumption (Besse et al., 2018; Hamilton, 2015). After leaving military service, studies show male veterans, veterans with family issues (like divorce or separation), lower incomes, or less education are more prone to excessive drinking (Goodell et al., 2018). Post-Traumatic Stress Disorder (PTSD) is also highly correlated with hazardous drinking among veterans (Carter et al., 2011). For female veterans, alcohol abuse is reported to be a coping strategy in response to military sexual trauma and other emotional or physical abuses experienced during and before their military careers (Creech and Borsari, 2014; Evans et al., 2018).

In multiple countries, alcohol consumption, by both serving and ex-military personnel, has been observed as being higher than that of civilians (Bohnert et al., 2012; Fear et al., 2007; Taillieu et al., 2020; Teachman et al., 2015; Waller et al., 2015). Within the military context, alcohol can be linked with socialisation and bonding as well as relaxation or emotional release (Osborne et al., 2022). However, hazardous episodic drinking (binge drinking), and/or harmful long-term consumption patterns can lead to significant disruption at both an individual and group level (Osborne et al., 2022).

Individuals who are dependent on alcohol as a coping strategy, have a higher proclivity to inefficient and malfunctioning emotion regulation strategies which subsequently make them more prone to harmful alcohol-related consequences (Dvorak et al., 2014; Petit et al., 2015). This vicious cycle not only negatively impacts individuals' health and well-being, but also makes it more difficult to recover from an alcohol use disorder (Brown and Melas, 2024). Previous health marketing interventions have incorporated Motivational enhancement therapy and cognitive behavioural therapies. The Step Away app was successful in reducing heavy drinking days and included emotion management education (Hawkins et al., 2023; Malte et al., 2021). Thus this health literacy approach has been shown to work for US veterans.

Previous reviews have found that brief alcohol interventions had limited effects for veterans (Wigham et al., 2017). Health marketing interventions have been mostly reported for the US military, with none reported for New Zealand. Reported interventions include peer-led support meetings (Resnick and Rosenheck, 2010), storytelling sessions (Flora et al., 2016); Animal therapy (Linn et al., 2019); vocational and career coaching services (Bond et al., 2022; LePage et al. 2011); and web or app based informational and support programs (e.g. Hawkins et al., 2023; Leightley et al., 2022; Livingston et al., 2021; Young et al., 2018). Of those that reported changes to alcohol consumption, the web and app based interventions were the

only ones with significant differences in alcohol consumption, however self-reporting was relied upon.

Researchers have recommended tailored interventions for the veteran population to accommodate specific needs such as connection, peer support, and identity loss (Blonigen et al., 2021; Verkamp, 2021), and experts recommend holistic approaches are needed to support veteran well-being across multiple life domains (Karre et al., 2024). Macro-social marketing interventions have been successfully used and implemented in various contexts such as to target smoking behaviours (Kennedy and Parsons, 2012), alcohol consumption, and safety (Truong, 2017), just to name a few. As per Parkinson and Davey's (2023) research agenda however, it is paramount that health marketers develop a thorough understanding of their priority groups in order to provide tailored interventions that address their specific barriers and motivations. Since alcohol consumption in veterans' populations has not yet been investigated from a holistic perspective, gaining a clear understanding of the complexities of this behaviour and the mechanisms involved in driving alcohol consumption among this population is an essential first step.

Building on these findings, this research explores harmful drinking patterns after leaving the military environment, and the impacts on overall health and wellbeing of both veterans and their immediate families. While there is a significant body of research regarding drinking cultures at a national or exosystem level (Bronfenbrenner, 1977), there is a need for more nuanced and in-depth discussion of the veteran in a holistic manner, with all the influences on their alcohol consumption (Savic et al., 2016). To gain a holistic understanding of veteran alcohol misuse and potential paths for intervention, this work applies a revised version of Bronfenbrenner's (2000) socioecological model (Trego and Wilson's model, 2021) to discuss contributing factors to veterans' vulnerability to alcohol misuse that endures beyond their transition from service to civilian life. The outcomes of this holistic perspective are guided by the research questions: At each of the socioecological levels, what are the contributing factors that make New Zealand veterans prone to alcohol misuse? And what are the implications of this for health marketers?

Bronfenbrenner (2000) describes how an ecological systems approach can uncover the 'proximal processes' or mechanisms leading to the development of an individual's later behaviour. In this paper, alcohol consumption and its flow on effects among NZDF veterans is considered a function of reciprocal interaction between the developing individual and their immediate external environment over a long period of time (Bronfenbrenner, 2000). Bronfenbrenner's model has been refined for a military health context (Trego and Wilson, 2021) and proposes that an individual's behaviour is influenced by a) their micro-systems: the immediate interpersonal

relationships, such as within their family, friends, or peers, that is their physical, social, and work environments; b) their meso-systems: the interactions between the various micro-systems within settings such as community groups, support centres, and treatment facilities; c) the exosystems: the organisational qualities of the military they are a part of including regulations, that are generally outside of their control; and d) the macro-systems: the broader culture which one is a part of, that is, the military culture.

This revised socioecological model from Trego and Wilson (2021) is conceptually proposed for currently serving military personnel and has not been applied empirically to date, nor applied to veterans. Thus, we propose that from a veteran's standpoint, the meso-system encompasses the range of influences and experiences during and after enlistment and is one of the major planes of transition for participants as they shift from the military environment to civilian work or retirement (Bronfenbrenner, 1977; Trego and Wilson 2021). Relevant factors include, but are not limited to, the stressors associated with adjustment to civilian life such as a change to employment, accommodation, geographical location, finances, relationships, and familial arrangements (Wigham et al., 2017).

Ecological systems theory and the accompanying socioecological models have been used to inform health promotion research in military contexts before. These applications include interventions towards reducing violence and alcohol-related violence among ex-military personnel (Moorhead, 2021), devising a socio-ecological model for military women's health (Trego and Wilson, 2021) and assessing risk for suicidal ideation in the US Air Force (Langhinrichsen-Rohling et al., 2011). It is important to take a socioecological approach to health behaviours as it moves away from victim blaming through personal responsibility-based interventions to a more human focussed approach (Kennedy and Santos, 2019). This implies that there are multiple levers that can be used to intervene in veteran harmful drinking to aid in both decreasing harm and preventing the behaviours in the first place (Grzywacz and Fuqua, 2000; Stokols, 1996). Veterans' alcohol misuse endangers their own health and wellbeing, but also influences their marital or relationship satisfaction and in many cases can result in emotional/physical abuse and divorce; thereby it can also negatively affect their families' well-being (Osilla et al., 2018).

The prevalence of alcohol misuse in veterans also highlights the need for effective and holistic approaches at multiple levels to reduce the potential for alcohol harm in this group. Veterans are less likely to ask for help due to stigma and concerns about confidentiality and negative repercussions associated with seeking care for alcohol abuse (Bohnert et al., 2012, Osilla et al., 2018), and the combination of service experience and challenges of transition mean that programs designed for other contexts may not meet

the needs of this group. Bronfenbrenner (1977) stresses that processes taking place within environmental structures are inter-dependent and should be analysed in systems terms. This requires analysis to move beyond the dyad of an individual as influenced by the military drinking culture and to include interactions between the individual and their direct environment, as well as peer-to-peer and familial interactions.

## Method

In exploring the research question, we have adopted a constructivist epistemology and a hermeneutical phenomenology methodology. As such, we value each individuals' interpretations of their own reality within the context of their own socio-cultural and historical lived experience. We also sought as wide a variety of veterans as possible, along with family members, so all voices could be represented in our analysis and subsequent theorisation. We used the socioecological model as a framework to explore each layer of influence on participants' alcohol related behaviour, to holistically see veterans' functioning as best they can, given their experiences, upbringing, and environmental surroundings. This enabled us to avoid a "victim-blaming" mentality and to gain an open mind when coding transcripts as it allowed us to separate people from their behaviours, and from that which influences those behaviours. In turn this allowed us to identify intervention points within each layer of the socio-ecological model.

### *Sample recruitment and characteristics*

A total of 25 participants (Table 1) were recruited and interviewed. Recruitment occurred through posting in NZDF Veteran social media pages. All veteran participants included in the study had military careers within the New Zealand Defence Forces (NZDF) across Army, Airforce, and Navy. To be eligible for the sample, veteran participants needed to

**Table 1.** Participant information.

Forces	Army: 14 Airforce: 8 Navy: 2* Spouse: 5* Total usable: 25	Roles/Units: Rifleman, Armoured Corps, Intelligence, Engineers, Mapping, Officer, Signaller, EW Operator, Supplier, SAS, Aviation Fire service, Transport, Logistics, Watch Keeper, Catering, Aircraft Engineering, Instructor, Navigator, Airman
Rank	Entry level to Colonel	
Deployments	1-9	East Timor, Solomon Islands, Afghanistan, Iraq, Singapore, Somalia, Sinai
Ethnicity	Māori, Fijian, NZ	
Gender	Male, Female	
Service length	4-40+ years	
Year of separation	1995-2023	
Age at enlistment	17-27 years	
Age (at interview)	27-77	

have been a part of the NZDF and served in deployments, from the 1990 Gulf War onwards, that have been declared to be qualifying operational service for the purposes of the Veterans' Support Act 2014—that is a member of the armed forces who took part in qualifying operational service at the direction of the New Zealand Government. This was in order to meet the legal definition of a veteran in New Zealand.

The distribution of participants per service unit and gender reflects that of the NZDF, with the Army being the largest, then Airforce and finally Navy, along with the numbers within those that would qualify as a veteran under the Veterans' Support Act 2014, which further reduces the number of potential participants. As shown in [Table 1](#), both veterans and family members were interviewed; all family members were spouses. Among the spouses interviewed, two had also served in the military. The final sample included a broad range of ranks (entry level to Colonel), service lengths (4-40+ years), ages (27-77 years at time of interview), and number of international deployments (1-9). Of pertinence, given the change to military drinking culture over the years, we also had a wide range of years in which people left the NZDF (1995-2023), and ages of enlistment (17-27 years at time of enlistment).

### ***Interview protocol***

In-depth semi-structured interviews were conducted with veterans exploring their experiences with alcohol while in the military and the changes that occurred to their alcohol consumption when returning to civilian life. The interviews also covered impact on family members and reasons to stop drinking alcohol. The interviews followed the narrative interview protocol laid out by Jovchelovitch and Bauer (2000). Interviews were conducted by two different researchers, one with skills in counselling, motivational interviewing, and interviewing seniors. The other interviewer was an ex-NZDF Army medic. Interviews took between 40 minutes and 2.5 hours. It was important to have interviewers experienced in the area to ensure that any negative impacts of the questioning could be addressed immediately. The choice of interviewers also allowed participants to feel comfortable and safe to share. However, considering the potentially triggering content of interviews (military deployment, alcohol misuse, violence, and trauma), participants, interviewers, and researchers were made aware of and offered counselling resources following interviews.

Participants were asked to explore stories of their use of alcohol in their transition into civilian life, during service, and even prior to enlistment, as well as the known or perceived impact on their families. The narrative interview style followed a four-step process (Jovchelovitch and Bauer, 2000)

whereby 1) Initiation involved explaining the narration topic to the participant - the story of their transition to civilian life and the role that alcohol has played in that transition. 2) The participant shares their story without interruption from the interviewer. 3) The interviewer probes for expansion on the narrative and any other unanswered questions. Finally, 4) informal small talk as the interview finishes which expands on the narrative is noted.

Each interview was conducted via video call, was video and audio recorded, transcribed verbatim, and finally checked for accuracy. Interviews were conducted past the point of thematic saturation (7 interviews) to ensure sample variance supported saturation up to the total sample size of 25. Overall, interviews totalled 1699 pages of transcripts and 32 hours of recorded footage.

### ***Data analysis***

Meyer et al's (2024) three step coding method was used to analyse the interview transcripts. The steps were 1) precoding, 2) categorisation into concepts and themes, and finally, 3) categorising those according to theory. As such, the interviewers and another member of the research team inductively pre-coded both during interviews and with transcripts. Following this, an initial coding schedule was created that was based on a second member's emerging insights from listening to the interviews, reading transcripts, the pre-coding, and current literature. This was then used to code the transcripts in NVivo QSR (V12), by two members of the research team. The trustworthiness of the codes and their related quotes was assessed by the final two members of the team and adjustments made. Finally, based on the four layers of the socioecological model (Trego and Wilson, 2021), the final codes were deductively collapsed and divided into the layers as themes. Insights within each layer were then sought inductively to create a holistic picture of veteran behaviour.

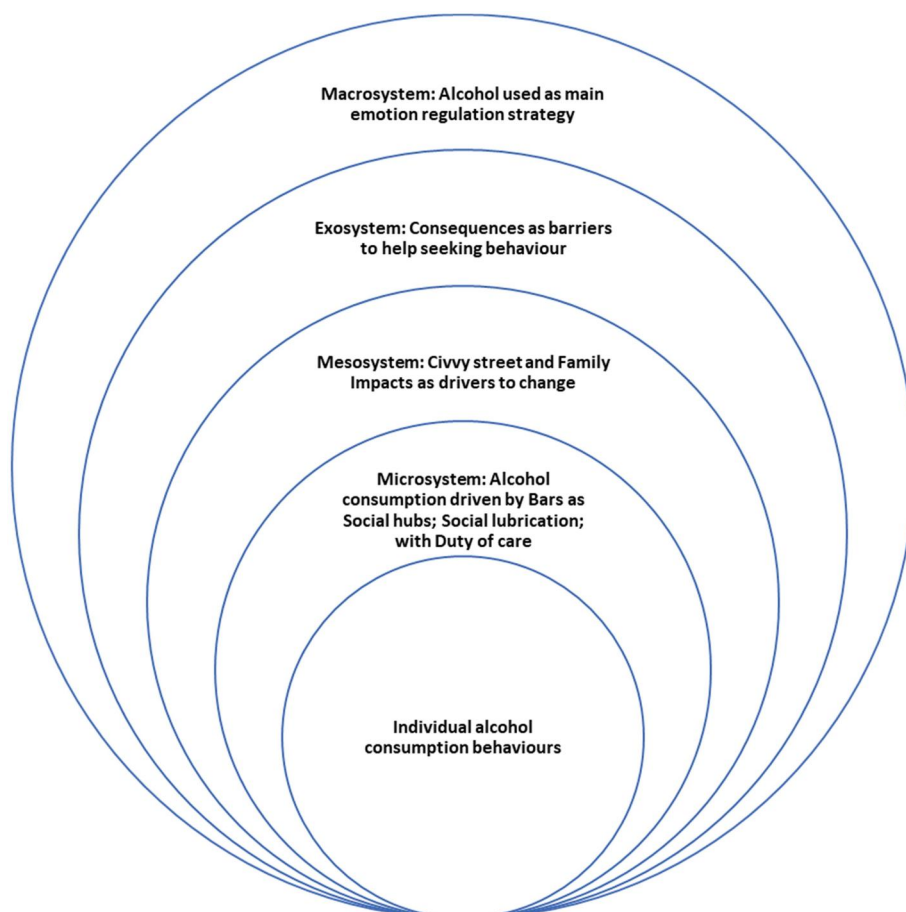
### ***Ethical considerations***

Informed written consent and verbal confirmation was provided by all participants prior to interviews. The study had ethical approval from University of Canterbury Human Research Ethics Committee, with consultation undertaken with the Ngāi Tahu Research Centre. Reference HREC 2021/43. To maintain confidentiality, numbered pseudonyms are used in the place of participant's names to present findings.



## Results & discussion

The analysis uncovered 7 key themes. These are grouped according to the different layers of the socio-ecological model outlined by Trego and Wilson (2021). To provide a comprehensive narrative, we order the findings as: 1) Microsystem, 2) Exosystem, 3) Macrosystem, and 4) Mesosystem as they influence alcohol consumption for veterans and shown in Figure 1. The themes identified within the microsystem include bars and drinking as 1) social hubs; alcohol as 2) social lubrication; and a work environment where a 3) duty of care was shown. The exosystem theme regarded 4) consequences that increased barriers to seeking help, while the macrosystem showed cultural values of excessive alcohol consumption as 5) an emotion regulation strategy, this impacted their interactions as veterans in the mesosystem in terms of their interaction with 6) Civvy street, and 7) family impacts.



**Figure 1.** The socio-ecological environment for Veteran alcohol consumption

### **Microsystem: Physical, social and work environments**

This theme presents a range of descriptions of the drinking environment during participants' time in NZDF. These include the physical environment on base, the social environment, and also their work environment, although the social and physical environments blend in this context to create a military work environment. In terms of the physical environment, the on base bar was described as a social hub for entertainment:

I guess there wasn't a heck of a lot to do so. It was more you kind of use it as an outlet, you sort of you know you drink. You talk about your frustrations, everyone just sort of unwinds, and then you know, releases and has a bit of a laugh. And to play pool, or just chat, or play card games, or whatever everyone else did ... (Participant 20)

The physical environment of single person rooms and loneliness also drove people to the on base bars:

And we got sent to [name of base] and we were put in single person rooms. Down there and that's the last thing you want to do is sit in this bloody cell know I mean it's Kinda good to get a bit of freedom, but we all gravitated to the bar pretty much because that's what we did. (Participant 13)

Descriptions of the NZDF drinking environment did vary over time, with more recent descriptions suggesting a reduction in the social use of on-base bars. For example, Participant 18 described a change in atmosphere on returning as a civilian. As less people lived on base, the physical environment led to less gatherings at the bar on base over time:

That was your sort of place to go and meet your mates and talk about things after work ... [now] that culture is sort of broken down, which I noticed because I went back as a civilian to [name of base] ... and it was very different. The whole atmosphere just simply wasn't the same. The absence of people, very few people drinking. And so mostly because most people lived off base ... (Participant 18)

The social environment consists of interpersonal relationships and many participants recalled the role of alcohol in meeting, making, and maintaining friendships, that is as social lubrication. Alongside descriptions of alcohol as the central aspect of social events, drinking is also described as facilitating social ease and conversation: *It made me more social ... It ensured I had a circle of friends because we all drank together.* (Participant 9)

Participant 24 (whānau | family member) describes the importance of peer-to-peer connection, and the role alcohol plays within the veteran's social circle: *Yeah, and I think for him it's always been about friendships, camaraderie, you know, people having your back, and I think you know, when you're out drinking and you're socializing. You feel like you're making those connections again ...* (Participant 24)

Military bars were described as a place to connect with others and feel a sense of belonging:

And it created a sense of togetherness and belonging with each other because it was a segue to talk and hang out. You are used to using the facilities to meet new friends. (Participant 3)

The work environment includes co-worker social support, as well as general occupational components within the NZDF. As per regulations, drinking alcohol was not permitted during working hours: *I suppose, work was work, so I didn't ever have a drink during work hours, but soon as the day was done. ... it was Monday, Tuesday, Wednesday, Thursday, Friday, Saturday night, into it.* (Participant 1).

We've got a different it's not culture. It's constraints on us in the defence. And then there's a large number of times we actually can't get access to alcohol. So, when we're in the army camp, we drank a lot. But it's offset by the times when we haven't got access to alcohol. Which in my trade is a lot of the time. (Participant 20)

Understandably, this element of the environment was particularly stressed where the participant is managing others in dangerous, volatile, or high-risk situations: *Absolutely 8h between bottle and throttle was the absolute ... Individual responsibility first, and then the responsibility of those who are doing dangerous things to make sure those who are involved in doing dangerous things. ... Aren't going to be a danger to themselves and the other people they're supposed to be keeping safe ...* (Participant 18)

We also saw a clear ranked 'duty of care' mentality that saw higher ranked officers ensuring that those below them were drinking in a safe environment and were supported. In some cases, the responsibility of leadership positions contributed to a reduction in their own alcohol consumption levels: *"So when I got to a senior CO level in command of troops. I was very cognizant of my own drinking habits too. In order that if one of my troops needed [me], got into trouble, I needed to be available to provide assistance."* (Participant 12)

This duty of care extended to controlling the drinking environment for peers, to ensure that they were able to use alcohol to regulate their emotions and personal grievances without severe consequences. Alcohol is repeatedly described as a mechanism to de-escalate pent up aggression or frustration following deployment or training exercises:

I wouldn't let my guys drink on operations, or even on the exercises, but the minute you [finished] the exercise we would always ensure that we had a function and the reason I did that was the same reason we have bars in the defence force, I can keep an eye on them while they're drinking, I can make sure they're not drinking and driving. If there's been some frustrations developed over the period of the activity. We can work it out without a fist fight, you know, control the situation, and that's why defence had bars and that's what we still do now when we come back from operations ... (Participant 9)

As well as formal paths to support with excessive drinking within the military environment, participants stress the significance of seniority

leaning on peer-to-peer relationships to resolve alcohol and domestic-related tensions. On a one-to-one relationship basis, the duty of care was extended beyond the broader squadron level. For instance, with this individual intervention:

... alcohol is forbidden. But when one of your soldiers is coming to work, and they've got more than the average after shave, or whatever and they are not fit for work purposes. They have not been out all night. They've been in their room. Ok. Probably we might go for a bit of a run. Sort of thing. And either blow that out or might be some counselling. What I did one time was what I had a staff sergeant who was, but he had problem. He had problems at home. So, was it easier for him to come to work? Sit in the car. Have a slug and then come to work. I was like okay. He can't drive home. Okay. I can't stop this, but you can send someone away, of course. But it's your responsibility. I got the regimental Sergeant Major, to assist me on that particular ... (Participant 2)

Participants' descriptions of alcohol consumption and drinking culture in the NZDF mirror findings from Hamilton's (2015) review of the Australian Defence Force (ADF), that alcohol is used as a tool for stress release and emotional de-escalation following significant periods of stress or grief. While Hamilton's work focuses on currently enlisted people, we found that this carries through to veterans who describe alcohol as an interchangeable facilitator of either stress relief and emotional release and in general as an emotion regulation strategy even after ending their time in the NZDF. Specifically, participants self-describe a lack of emotional regulation skills and in some cases recommend more training around these skills and overall emotional health.

### **Exosystem**

The physical environment facilitated drinking behaviours, which benefited veterans at the time of service in keeping social relationships. We also saw that the work environment was one in which peer support in terms of a duty of care was paramount between enlisted people. That being said, aspects of the *exosystem* such as organizational qualities including NZDF regulations and their consequences did not support transparency regarding alcohol consumption behaviours:

... the little drinking questionnaires you used to get, and fill it out for, like how many times you drink, and how many standard drinks. everyone I know or talked to was lying on them. I never know what even happened to those question is what they were done and signed off. (Participant 1)

The consequence as outlined below is that a person may not be deployed, and could eventually lose their job:

So warning might be given that, and then, if it happened a second time, then a person might expect to be grounded for a period of time. ... And there were cases of

people being sent off to recovery places, you know, as trying to wean them off if they were trending towards being becoming an alcoholic. Once people got to that stage, they ... would be grounded, and eventually, if they were found incapable of performing the job that they had been hired for, then they would be invited to leave. (Participant 18)

### Macrosystem

Cultural values regarding alcohol showed facets of acceptability of excessive drinking within the NZDF, and also a reflection of New Zealand society in general. Alcohol is not permitted on deployment or during work hours, however during certain situations binge drinking is both normalised and encouraged. Participant 20 also expressed an attitude of fatigue towards heavy drinking, and expressed a desire for alternative forms of social engagement with smaller quantities of alcohol involved:

... Yeah, I was kind of sick of that whole heavy drinking culture. I just I don't mind having a drink, you know one or 2 beers, but ... everyone drinks their own 24 box, and it's a lot, it's insane ... why can't we just socially have a few drinks, and have, you know, do something social instead of it being just about drinking heavily? (Participant 20)

Such drinking practices once learnt in the military, transferred over to veteran drinking behaviour once they left the forces: *"I suppose my drinking. I've struggled with my drinking ever since... because I was drinking every night, relatively \*\*\*\* excessively ..."* (Participant 1)

Participant references to reasons for drinking alcohol such as stress release, or 'decompression' for processing experiences and emotions include both during and after serving. Essentially, they felt that alcohol consumption within military culture was treated as an **emotion regulation strategy**. Alcohol is repeatedly described as a mechanism to de-escalate pent up aggression or frustration following deployment or training exercises: *"It certainly decompresses people ... Yeah, release valve."* (Participant 14)

And then you just go to the bar to sort of like release all that stress, and then ... to release some of the attention and anger and in an environment where you can, and then go home. (Participant 20)

That's the way that people deal with a lot of the trauma, and their issues that they'd drink, get all of your emotions out and whatever way, they, wake up next day a bit calmer or whatever. (Participant 4)

One participant who had given up alcohol after exiting the military described a process of coming to terms with previously avoided emotional pressures:

Well, I think firstly was giving up alcohol. I had to deal with my shit then. I couldn't go out and have a scrap or have an outburst I mean that pressure relief valve that was removed, and I had to deal with what was creating the pressure ... it would have been good to have an outlet military wise that didn't involve alcohol. (Participant 4)

Participant 9 describes how coping mechanisms learnt within the military are a fall back when facing challenges in civilian life: “*Divorce, separation from their kids, and treating it with alcohol.*” (Participant 9). Participants wished that the culture within the military saw the lack of emotion regulation strategies they had and helped them to develop them whilst in service:

When we get young people coming into the services, like I say alcohol is just a symptom of something else, alcohol abuse, and I mean the culture did support it and make it worse. But at the end of the day, it’s a symptom of something else and more time needs to be spent on not just training military skills, but psychological skills, mental resilience, understanding stress, and the signs of stress and negative spirals, that kind of thing. So, you went through a lot of different training, in the military. But we spent bugger all time changing our minds. (Participant 4)

### **Mesosystem: Community interface—Civvy street and family harm**

The mesosystem describes the interactions between the major groups in one’s life, specifically the different communities. Within the veteran’s world, this consisted of their interactions with “Civvy street” that is non-military people and work contexts, as well as their family. Participants conveyed that they found that, as a veteran in civilian contexts of drinking, there was a difference in terms of the amount and speed of drinking:

And I was pretty quick to sort of identify that I drink a lot more than any of my contemporaries in civilian life, by a long shot. I suppose they just drink less aye, across the board. Drink less and drink a lot slower, and it’s just a lot calmer. (Participant 1)

Now that I work in like a corporate space. It’s kind of what’s different about it... I still think it’s not that much different... It’s probably a much classier kind of drinking and socializing. And less. I think yeah, I definitely find it hard trying to adjust to that, because I’m used to just trying to drink a lot in a short amount of time. (Participant 5)

Family impact came out as a prominent theme. Throughout the interviews, multiple participants referenced ways family members have been impacted by alcohol use whether through behaviour while drinking, or other impacts on the quality of their familial (micro-system) relationships. In cases of significant disruption, post-traumatic-stress-disorder diagnosis, or prolonged alcohol misuse, spouses described the challenges faced by a family that becomes centred around the family member who is struggling:

And sometimes it’s really hard. Because your whole life becomes centred on that individual. What they need, what they want, you know everything. And I guess then the other side of it is that very often the support that the family need isn’t there. (Participant 8, spouse and veteran)

As well as reflecting on their own experiences, participants observed what they perceived as a high number of family break-ups in the military community: *So, I’ll say I’ve seen that many relationships down the gurgler.*

*Just guys being pissed up and being pissed up making silly mistakes. (Participant 1).* The impacts on family were not always extreme or volatile, but in some cases presented a more subtle sense of lost quality time:

So, [after] a certain time of drinking I work out that he's gone. I can't communicate with him anymore. I've lost him to conversation. I've lost him to memory, and he's switched off. So, he'll continue drinking, and he'll appear like he's there, and he's still going but I know that ... there's no deep and meaningful at that time of night. All that time of his drinking. I've lost him. (Participant 19, spouse and veteran)

From a health marketing perspective, excessive alcohol use leads to a significant decrease in mental health, quality of life, and social functioning; therefore, can make it extremely difficult for veterans to readjust to civilian life after retiring from service (Goodell et al., 2018). Building and extending this and Hamilton's (2015) work, we found that while in service, the cultural values of using alcohol as an emotion regulation strategy were perpetuated by both the microsystem and macrosystem. We see that the physical environment enabled the behaviour and that the well-meaning 'duty of care' reinforced it. Without further psychological training within the macrosystem, and with barriers to help seeking in the exosystem, the behaviours continued into veteran life with impacts in their mesosystem. Such barriers to seeking help among especially young men (the main recruit of the defence forces) has been noted elsewhere (Palmer et al., 2024).

### **Practical implications, future research and limitations**

The identified themes represent some of the key contributing factors to New Zealand veterans' alcohol misuse. Overall, participants describe the influence of the NZDF environment, alongside a need for emotional release after stressful experiences for which they feel ill-equipped. This indicates a dynamic relationship between the individual and their direct social context, an aspect which undergoes significant alteration when an individual exits the military and returns to civilian life. Specifically, health marketing efforts to reduce alcohol-related harm among veterans should aim to intervene at the root cause, by facilitating mental and emotional processing and integration of previous experiences. This research indicated a greater level of support could be achieved by providing health literacy training for military service personnel and their families. This would include emotional regulation skills and support systems from initial enlistment, through service, and after leaving the defence forces. A finding that is echoed by other research that identifies the use of alcohol as a coping mechanism (Osborne et al., 2022).

At the individual level, this extends previous research by emphasising the need for emotional regulation strategy training. While defence forces internationally provide resilience programs to those enlisted, these programs are

specifically targeted to ensure recruits can continue working. They do not generally provide general training on emotion regulation strategies, or how they might transfer beyond the service environment. Therefore, the major practical health marketing intervention we suggest from this study, is to implement early and ongoing emotion regulation training for NZDF members and veterans. Providing such training during basic training, post-deployment, and periodically throughout the person's service life would ensure a thorough understanding and use of such strategies. While in transition to civilian life, veterans should be offered refresher courses to aid them through the stresses associated with this phase in their career. Health marketing materials can support the continued use of these strategies, including with ongoing communications, brochures, and online refresher modules. Providing alternatives to drinking sessions for processing of emotions within and outside of the defence forces would further reinforce healthy coping behaviours. This is likely to be a policy intervention.

This research reinforces that veterans' alcohol misuse influences their marital satisfaction and, in many cases, can result in emotional/physical abuse and divorce; thereby, it can negatively affect their families' safety and mental well-being (Osilla et al., 2018). The role of partners and families is largely underestimated and there are few health marketing programs that focus on partners' mental well-being and their role in managing and reshaping the family environment. With family members describing flow-on effects of alcohol misuse at the exosystem level, this paper re-iterates how alcohol misuse does not occur in isolation but impacts family members in both devastating and subtle ways. Given the role of families, they too should be offered such training when their family member transitions to civilian life.

In summary, this study has several practical health marketing implications and subsequent avenues for further research in line with Parkinson and Davey (2023)'s research agenda for health marketing. These are a mixture of health literacy, health marketing, and policy change to increase healthy behaviour. Firstly, as shown in [Table 2](#) and mentioned here, we recommend health marketing practitioners specifically focus and invest in developing health literacy programs incorporating emotion regulation training at different stages of veterans' careers such as post-deployment, pre-deployment and transition. Secondly, reflecting on the discussions and results, providing continuous training for veterans based on the unique circumstances of each stage of their careers is of great importance. Therefore, we recommend practitioners leverage digital health tools such as apps, wearables, and other technologies to enhance engagement and personalise interventions. Lastly, our study showed how different factors within the different layers of the socio ecological model can influence veterans' mental well-being and create vicious cycles detrimental to their well-being.



**Table 2.** Elements of the socio ecological model.

Socio ecological layers	Health marketing interventions
Microsystem	Decrease opening hours of bars and increase opening hours of other forms of entertainment on base. Increase entertainment, bonding, and camaraderie building opportunities on base and for Veterans through co-design. Increase training in social and communications skills for new recruits. Provide ongoing marketing communications relating to the use of emotion regulation strategies, for enlisted servicepeople and veterans.
Meso-system	Offer emotion regulation training modules directly to veterans for preparation and dealing with civilian life, as well as their families.
Exo-system	Provide greater variety of avenues to ask for help, including anonymous help, both whilst in service, and outside. Have greater transparency of available health services for veterans, when struggling with alcohol harm.
Macrosystem	Include general emotion regulation training in basic training, post-deployment, and transition phases of an enlisted person's career, and also periodically throughout.

Therefore, we recommend policy makers and practitioners adopt a holistic and systematic view of mental health marketing for this target population and consider innovative approaches to break the cycle, change military norms, and overcome stigma in relation to help-seeking.

It should also be noted that this study has limitations in light of which there are avenues for future research. For instance, while we have not investigated emotion regulation strategies at a granular level, previous research suggests that different coping motives, are associated with different malfunctional emotion regulation strategies (Brown and Melas, 2024). Therefore, an area of future research can be to further identify which emotion regulation trainings and in which stage of transition are the most effective according to the past experiences of veterans. In addition, although this paper provides recommendations for effective implementation strategies at each layer of the socio ecological model, investigating the most effective delivery methods and technologies for integration of the recommendations at each layer falls outside the scope of the current study and hence an area for future research.

## Conclusion

This paper applies the socio-ecological model to inform additional efforts around transition and alcohol misuse for veterans by providing a more holistic and clearer picture of this issue for New Zealand veterans. This is achieved by discussing multiple layers of the socio-ecological model concurrently, rather than focusing on the individual veteran or organisational drinking culture in isolation the way that previous literature has. This approach considers the impact on individual veterans, as well as their families, and seeks to improve transition outcomes for veterans. The amended socio-ecological model considers development as an ongoing process both intergenerationally and through all life stages (Trego and Wilson, 2021),

this makes it particularly applicable to veteran transition. It also acknowledges the appropriateness of a holistic view of veteran transition (Pedlar, Thompson, and Castro, 2019).

Overall, findings support health marketing efforts for veteran alcohol misuse that integrate across all levels of a socio-ecological model and over the long term. Rather than addressing individual alcohol use using a personal responsibility and victim blaming narrative, a holistic, multi-layered approach is recommended (Lunnay et al., 2023). This research shows that we must consider the root cause of harmful alcohol behaviours and intervene at that level with emotion regulation training. Changing the environment to both facilitate and perpetuate healthy relationships with alcohol and emotions, through alternative activities to release emotions, can turn the dial down for alcohol harm for veterans. The veterans in our study were crying out for help in terms of their alcohol consumption, and the forces that led to it. We hope to have offered implementable solutions to their calls.

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### **Author Contributions**

AK, EV, and JC designed the study and were awarded the grant for the study. AT undertook the literature review and aided in early funding proposal drafts. AK and KL undertook recruitment, first data analysis and interpretation of the data, along with creating the first version of the manuscript. All authors contributed to the analysis and interpretation of the data, and had input and edits of the final manuscript. AT and AK undertook the revisions.

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## Data availability statement

Exemplars of the data underlying this article can be found as quotes within this article to support the analysis. The full data set cannot be shared publicly due to 1) the sensitive, traumatic, and private nature of what participants disclosed, 2) due to the requirements of the University of Canterbury Human Ethics Committee, and 3) because the data would provide identifying information on the participants.

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