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HELP SEEKING IN THE NEW ZEALAND
DEFENCE FORCE USING THE THEORY OF
PLANNED BEHAVIOUR

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Abstract

Mental health is of utmost importance in military settings due to the demanding and often dangerous nature of the work involved. However, military personnel are disproportionately deterred from seeking mental health help when the need arises. Perceived stigma and structural barriers to help seeking have been widely researched in military settings, however, results are often mixed. The current study examined the traditional stigma and structural barriers help seeking model alongside an alternative model of the Theory of Planned Behaviour to explain help seeking behaviour. A cross-sectional study design surveying 2633 enlisted New Zealand Defence Force Personnel was carried out. Within the two models, attitudes, subjective norms, perceived behavioural control, stigma, and structural barriers were assessed as predictors of intentions to seek professional help for mental health problems. The Theory of Planned Behaviour model accounted for 26% of total variance in help seeking intentions, while the traditional model only accounted for 7%. Additionally, the Theory of Planned Behaviour model showed potential for its capacity to include stigma and structural barriers as antecedents to its core predictors, with stigma being partially mediated by attitudes, and structural barriers being fully mediated by perceived behavioural control.

Additional group level measures were also considered in relation to help seeking intentions which highlighted at risk groups. A common theme arose across these groups of less chances for both formal and informal learning opportunities about mental health help seeking in the defence force. Using these group level differences, recommendations for how the Theory of Planned Behaviour can be utilized to increase mental health learning experiences for the New Zealand Defence Force personnel are made. Specifically, the potential efficacy of incorporating the sharing of highly ranked personnel's positive experiences of help seeking early on in new recruits training.

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CHAPTER ONE

Introduction

In recent decades, public health authorities and organisations have worked to encourage people to seek help for mental health problems, through awareness, education, and increasing both availability and accessibility to care. Help seeking includes all stages of the process of seeking care for a suspected mental health problem. This includes initiation and engaging in care (Kovandzic et al., 2011). A 40 year cross temporal review found that help seeking for mental health problems in Western countries is increasing. However, a majority of individuals with mental health problems have remained untreated (Mackenzie, Erickson, Deane, & Wright, 2014; Wang et al, 2005). In fact, across all nations, 40-60% of those who would likely benefit from mental healthcare do not seek treatment (Hoge et al., 2004; Iversen et al., 2011; Kehle et al., 2010). Delaying or avoiding formal care can have problematic consequences. Illnesses such as psychosis, bipolar disorder, and major depressive and anxiety disorders have been found to have worse outcomes the longer they are left untreated (Boonstra et al., 2012; Dell'Osso, Camuri, Benatti, Buoli, & Altamura, 2013; Dewa, 2014). There is significant evidence suggesting that mental illnesses are increasing over time (Compton, Conway, Stinson, & Grant, 2006), therefore it is more important than ever to better understand factors that influence an individuals' decision to seek help for mental health problems. For the purpose of this research, help seeking will include any formal care sought for mental health problems. This would include talking to a general practitioner, a psychologist, a superior or any other formal avenue to help, but would not include telling a friend. This is because formal care is comparatively more measureable and effective in treatment (Clement et al., 2015).

Help Seeking for Mental Health Problems in Military Settings

Help seeking in the New Zealand Defence Force.

The importance of mental health is often magnified in the workplace due to safety and performance demands. There are many factors that are unique to military occupations that make mental health of great significance, and also have associated factors that may increase the risk of both developing mental health problems and reducing help seeking once problems arise (Britt & McFadden, 2012). New Zealand Defence Force (NZDF) personnel need to be healthy mentally, as safety, teamwork, and trust are required to successfully carry out duties on a daily basis. Military personnel spend much of their time training for tasks that they will carry out either on deployment overseas, or at home. This includes, but is not limited to, war, natural disaster, piracy, civil strife, support, epidemics and peace monitoring. This training is highly team work focused, therefore personnel have to place their trust in team members to successfully carry out their role so that procedures are executed safely for the whole unit. If team members have poor mental health, trust within teams may break down, and safety of tasks may be compromised.

Looking at the Vietnam war where NZDF military personnel were called upon to serve in hospitals, skies, jungles, and training camps in South Vietnam from 1963 to 1975, gives insight into some of the more extreme deployment challenges potentially faced (Victoria 4 Company, 2011). They were separated from their families, with no knowledge of how long they would be gone or if they would return, had challenging living conditions, limited resources, were in constant danger, carried out face to face combat, witnessed human atrocities, experienced the deaths of close work comrades and had to bear the weight of killing those on the opposite side of the war lines. Although this particular war is further back in the NZDF's history, their personnel are still often deployed to similar zones where threats to safety, moral injury, fear, and violence are regular occurrences. Much of the recent training

and deployments have no direct conflict risk but other risks are associated such as long work hours, physically and mentally demanding work, threats of improvised explosive devices (IEDS), and heavy or dangerous machinery operation such as aircraft loading and handling. Currently, NZDF personnel are deployed on fourteen operations to Afghanistan, Antarctica, Iraq, Middle East, Sinai, South Korea, South Sudan, and Arab Emirates (New Zealand Defence Force, 2015). Therefore, for those that are currently in the NZDF, deployment is a tangible part of their roles. Even if some have not yet been called up, deployment is a large component of what they train for daily.

Despite the above operational stressors, there are cultural factors that affect help seeking. The military has a well-documented 'macho culture'. Right from the initial training considerable weight is placed on resilience, toughness, self-sufficiency, and strength, which are all considered vital to the role of a military personnel (Iversen et al., 2011). As a result of the macho culture within the military, behaviours that do not fit the 'macho' image have historically been suppressed. These behaviours include admitting psychological symptoms, discussing mental health concerns, and expressing the need for or seeking mental health care (Garcia, Finley, Lorber, & Jakupcak, 2011; Harmen & Lee, 2010; Langston et al., 2010).

In considering what makes the military unique in terms of mental health and associated help seeking, it is important to recognise that many other occupations also have physical and emotional stresses associated with them, such as police, firemen and other emergency service personnel potentially being badly injured if they make a physical mistake, and Oncologists experiencing the death of many of their cancer patients. Nevertheless, the unique mix of practical and cultural factors associated with the military has resulted in personnel being disproportionately reluctant to seek help for mental health problems in comparison to other high stress work environments. This was found in a systematic review by Clement and colleagues (2015) which looked at 144 studies related to help seeking across

different workplaces, cultures, and economic populations. Traditionally, there is a high prevalence of mental health problems in the military internationally compared to other organisations (Rona et al., 2009). The New Zealand Health Survey found that 16% of New Zealanders have been diagnosed with a common mental disorder (NZ Mental Health Foundation, 2014), however current NZDF data shows typically only around 5% of NZDF personnel have sought help through primary care health services internally for mental health problems (Chief Mental Health Officer NZDF, personal communication, August 15, 2016). This discrepancy may be due to a lack of robust data capture and monitoring resulting in not all avenues that NZDF personnel use to seek help being recorded, such as NZDF psychologists or external self-referral. Additionally, help seeking and diagnosis aren't the same thing so can't be directly compared, however it is probable that a significant portion of the diagnosed cases in the general population resulted from help seeking. The New Zealand Health Survey does not directly enquire about help seeking and the NZDF data is limited, however considering the diagnosis statistic of 16% of the general New Zealand population in relation to the NZDF help seeking of only 5%, it is plausible that there is a discrepancy in either help seeking, or reporting of help seeking. Either of these may be cause for concern, as the NZDF requires all uniformed personnel to either seek help for mental health problems internally from their health care professionals or to notify them of any care they are receiving outside of the military. This requirement is linked to the importance of safety, teamwork, and trust. The Chief Mental Health Officer of the NZDF (personal communication, August 15, 2016) reported that only 5% of NZDF personnel were seeking help for mental health problems. This indicates that they have either a low level of mental health problems, help seeking is not adequately recorded, they are not seeking the help they need, or are seeking private care and not disclosing it. It is possible that the screening out of applicants with significant mental health problems during the recruitment process may partially account for

lower mental health problems and associated help seeking, additionally the demographic is restricted to only those over eighteen years of age for enlistment. However, this is fairly standard across militaries and it is widely reported that military personnel still suffer from greater rates of mental health problems, so it is questionable that NZDF personnel are much healthier than the general New Zealand population (Rona et al., 2009). Not seeking help and not disclosing mental health care sought externally are both cause for concern. If NZDF personnel are seeking help but proper recording of help seeking has not taken place in the past only positive steps can be taken to move forward with more robust data collection, which is already taking effect in the form of research such as this. Not seeking help means that individuals won't get the care and support they need from the military and could cause deterioration in mental health problems. As such, individuals may be carrying out tasks that they are not mentally fit for (Boonstra et al., 2012; Dell'Osso, et al., 2013; Dewa, 2014). Seeking help outside of the NZDF without disclosing it may mean that until individuals have recovered they may be asked to carry out tasks that they are unfit for, which can be unsafe, or exacerbate the problem. On an individual level help seeking is one of the first steps towards better mental health and mental health problems will likely have negative impacts across all areas of life. Therefore, although the focus of help seeking for the NZDF may be at an organisational level, it is highly important at an individual level as the negative effects of mental health can stretch well beyond the workplace environment.

There is a large body of literature in military settings which attempts to highlight specific factors that influence help seeking behaviour, which primarily focuses on structural barriers and stigma as an attitudinal barrier. However, these studies have mixed and often counter-intuitive findings (*see* Sharp et al., 2015 *for review*). This may be due to confounding factors, such as study design, construct clarity, and cohort differences of the participants involved. One potential factor is the context and specific sample being surveyed. The

majority of research to date considers the United Kingdom (UK), United States of America (USA), Australian and Canadian Armed Forces. The armed forces of these nations are likely to have a lot in common with the NZDF. Yet as they are completely separate organisations and are staffed by individuals with very different cultural backgrounds, it is foreseeable that context specific factors in NZDF will influence help seeking in military settings. In this area of military literature, the NZDF personnel have only been involved in one piece of published research on help seeking in which Gould and colleagues (2010) looked at cultural differences in reported stigma and structural barriers across Armed Forces. Gould and colleagues (2010) reported the general pattern of concerns about help seeking to be somewhat similar across forces. Conversely, the NZDF cohort had opposite findings to other Armed Forces when looking at the relationship between stigma and structural barriers with current mental health status. It was found that the UK, USA, Canadian, and Australian groups all had greater levels of stigma and structural barriers when they were experiencing mental health problems (Gould et al., 2010). Yet, the NZDF group reported the opposite. The authors described a few potential reasons for this anomaly, one of which was the difference in the type of deployment of NZDF personnel. NZDF deployments involve a greater percentage of peace keeping missions compared to other military's, which results in reduced combat exposure for NZDF deployed personnel. Additionally, the NZDF carry out comprehensive pre and post deployment psycho education which includes practical skills such as recognising when people are at risk of mental health problems. This highlights the importance of carrying out context specific research on the help seeking behaviour of NZDF personnel. Generalizing findings from other Armed Forces may not correctly inform what the underlying factors are in the NZDF that influences help seeking behaviour.

Barriers to Care

Terminology.

Barriers to care is defined as all factors that an individual perceives to prevent them from seeking help for a mental health problem. This encompasses practical and physical barriers such as getting time off work and transport to see a mental health professional, but also social and emotional factors. These can include negative attitudes and beliefs about help seeking and the perception that help seeking is a sign of weakness or that mental health problems are not a valid reason for not working (Clement et al., 2015). Military literature in the help seeking area primarily looks at a model in which stigma and barriers to care negatively impact personnel's intentions or behaviour to seek help for mental health problems. It is noted that the literature has wavered on terminology use, with the majority of recent studies such as Sharp et al.'s (2015) review using the label 'barriers to care' as a broad concept to explain a narrow set of barriers that only takes into account the practical, physical, and structural barriers such as getting an appointment. The use of this broad label to capture only a small area of barriers within barriers to care is cause for confusion. Additionally, the label 'stigma' is used to describe all types of stigma within the literature, however it is often discussed in a way that makes it seem completely separate from barriers to care, and the fact that it is a type of barrier to care is often not made clear. In the 'Perceived Barriers to Care for Psychological Problems Stigma Subscale' (PSBCPP-SS; Britt, 2000; Britt et al., 2008; Hoge et al., 2004), an assessment tool that is commonly used to measure barriers to care and stigma, the items reflect a smaller highly specific subset of barriers to care (Britt, 2000; Britt et al., 2008; Hoge et al., 2004). For example, an item from the scale considers the fear of being seen as weak and how that stigmatizing belief acts as a barrier to seeking help, however other barriers such as the efficacy or control an individual feels over seeking help are not included. Labelling these specific barriers to care with the general label 'barriers to care',

may cause confusion for the research community, and lead to the assumption that the research encompasses other barriers such as, motivational, cultural, emotional, and attentional factors, which have been overlooked (Gulliver, Griffiths, & Christensen, 2010). This labelling style also separates stigma from barriers to care, implying stigma is not a barrier to care. Although barriers to care and stigma are the most commonly used labels, more specific and descriptive labels have also been used (Sharp et al, 2015). Britt (2000) describes the above labelled 'barriers to care' as "practical concerns", and 'stigma', as "interpersonal distance", whereas Sudom, Zamorski, and Garber (2012) termed 'barriers to care' as "structural barriers", and 'stigma' an "attitudinal barrier". To move past the confusion of previous labelling Sudom's (2012) terminology will be used in this research. It is parsimonious in that the labels describe what is being measured in a straight forward way, and it also clearly integrates stigma as a barrier to care, by including attitudinal barriers. However, if stigma is initially clearly described as an attitudinal barrier to care it can then be referred to simply as stigma. Therefore, in this research when discussing stigma, it is in terms of stigma as an attitudinal barrier to care.

Structural barriers to care.

Structural barriers to care encompass all of the perceived and real barriers that prevent or decrease help seeking for mental health problems, such as operationally, practically, structurally, procedurally, and administratively (van Hooff, Hodson, Lorimer, & McFarlane, 2012). In some cases, structural barriers may be true barriers, such as the resources not being available for help seeking. In other cases, structural barriers may be perceived as larger than they are, due to influences by other attitudinal barriers, or a lack of knowledge and awareness. That is, an individual may perceive there to be a structural barrier, such as insufficient help seeking resources, whereas such resources are available that an individual

may not be cognisant of. Other barriers such as attitudinal barriers may influence this structural barrier. For instance, negative attitudes towards the services provided may result from individuals feeling that even though the resources are there officially, that they are of a poor standard and are insufficient in addressing the individual's mental health concerns. Other personal factors such as current mental health status may influence how structural barriers are perceived. Depression is just one of many common mental health problems that can negatively affect motivation and cause lowered mood (Costello, 1993). This has been linked to tasks being perceived as more difficult and therefore is likely to increase the perception of structural barriers to seeking mental health care. Although structural barriers are essentially physical and administrative, they can be influenced by many factors. It is noted that the PSBCPP-SS (Britt, 2000; Britt et al., 2008; Hoge et al., 2004) is a self-report measure and as a result, what is actually being measured is the individual's perception of these barriers. Therefore, throughout this all barriers should be regarded as perceived barriers.

Attitudinal barriers to care.

Stigma is a process that involves negative attitudes, stereotype awareness, stereotype endorsement, labelling, separation, prejudice and discrimination in any context where political, social, or economic power is used to disadvantage a group (Clement et al., 2015; Corrigan & Penn, 1999;). Stigma is an attitudinal barrier as it is based on the attitudes of the individual experiencing stigma and the attitudes of those around them, which can influence help seeking behaviour. There are a number of different types of stigma that have been recognised as playing a role in negatively impacting help seeking. First of all, public-stigma is the negative attitudes the general public have towards mental health, which can illicit fear and discrimination (Link, 1987; Link, Cullen, Frank & Wozniak, 1987; Skinner, Berry, Griffith, & Byers, 1995). Self-stigma or internalized stigma is then the result of the negative

beliefs of public stigma being internalised by individuals (Corrigan & Watson, 2002; Link & Phelan, 2001). Experienced stigma is when an individual experiences being perceived or treated unfairly, and anticipated stigma is the expectation of this occurring. Perceived stigma encompasses the interpretations an individual has about how much others have negative views of those with mental health problems. Stigma endorsement is the stigmatizing attitudes and behaviours an individual has towards others with mental health problems, and finally treatment stigma is stigma at both an individual and societal level related to seeking help and receiving treatment for mental health problems (Clement et al., 2015).

Mackenzie and colleagues (2014) carried out a cross-temporal analysis of attitudes towards seeking help for mental health problems. They looked at changes in these attitudes over the past four decades, and found a linear pattern of increased negativity regarding help seeking behaviour. This supports previous findings that show public stigma to either not have reduced, or to have deteriorated over time (Angermeyer, Holzinger, & Matschinger, 2009; Pescosolido et al., 2010). This is supported by a more recent systematic review of 90,189 participants, from a variety of cohorts, which found the relationship between stigma and help seeking to be significantly negative (Clement et al., 2015). In this review, stigma endorsement, internalized stigma, perceived stigma, and treatment stigma stood out to be the most commonly linked to reduced intentions to seek help. When considering the importance of stigma as an attitudinal barrier to help seeking it was ranked as the fourth most commonly reported. As previously stated, this review also identified that military personnel ranked much higher in stigma associated with help seeking than the general population. This awareness that stigma deters help seeking behaviour in the general population but even more so for military populations is also found across military literature (Britt, 2000; Sudom et al., 2012).

Are barriers to care valid concerns?

Past literature around stigma and structural barriers often discusses them purely in terms of perceived mental concerns, and overlooks the potential of these perceptions to be valid with associated real life consequences. In a UK survey carried out by the Mental Health Foundation, of 556 civilian service users, 70% had experienced discrimination (Peterson, Pere, Sheehan, & Surgenor, 2004). Of this, 47% of participants had experienced discrimination in their workplace, 44% from their general practitioner, and 32% from mental health professionals. This suggests that stigmas of negative treatment for help seeking for mental health problems may not simply be an unrealistic cognitive barrier to care, but in many cases a valid concern. To date there is a lack of research published on experienced discrimination due to seeking help for mental health problems in the military (Gould et al., 2010). There is also limited research on if these concerns are validated or if perceptions of negative treatment are worse due to stigma and poor mental health, and of the limited research available the findings are mixed. Research by Porter and Johnson (1994) found limited evidence that United States of America (USA) commanders viewed soldiers who had sought help for mental health problems more negatively. However, in the context of help seeking literature in the military, these findings are fairly outdated, as in more recent decades more emphasis has been placed on mental health in the military. A more recent UK study by Iversen and colleagues (2011) stated that some of the participants held a similar perception to those described in Porter and Johnson (1994). However, the proportion was not considered significant. A further study looked at university student's perceptions of responsibility and resilience in a civilian example compared to a military sample (Gillispie, Britt, Burnette, & McFadden, 2016). Military personnel were seen as less responsible for their mental health problems and more resilient if they sought help for problems compared to civilians with the same problems. This positive view of help seeking for mental health problems is

contradictory to the negative expectations of stigma. Yet, it is important to note that the study was based on university student's opinions, rather than other military personnel, and significant others such as family and friends, which are likely to be whom military personnel fear discrimination from.

Although there is limited evidence available that barriers to care have tangible negative implications on help seeking, rationally considering barriers such as getting time off work for an appointment, it is likely that some structural barriers and stigma are legitimate concerns. However, what is often measured such as in the Perceived Barriers to Care for Psychological Problems Stigma Subscale PSBCPP-SS are individual's perceptions rather than objective measures of structural barriers and stigma (Britt, 2000; Britt et al, 2008; Hoge et al., 2004). Although these concerns may be valid within their workplace context they also may be influenced by individual factors. For example, a lack of knowledge of organisational policies to get time off of work to seek help may be interpreted as the physical barrier of, "not being able to get time off work for an appointment". Also, mental health factors such as depression may make an individual feel low and unmotivated, and consequently they may perceive a barrier such as getting time off of work as of greater hindrance than it would actually be (Costello, 1993). These examples highlight the rationale for using individual perceptions. However, when considering the results of these perceptions it is best to do so in the real world context they come from, so that valid concerns are not overlooked.

Theoretical framework to support the PSBCPP-SS model.

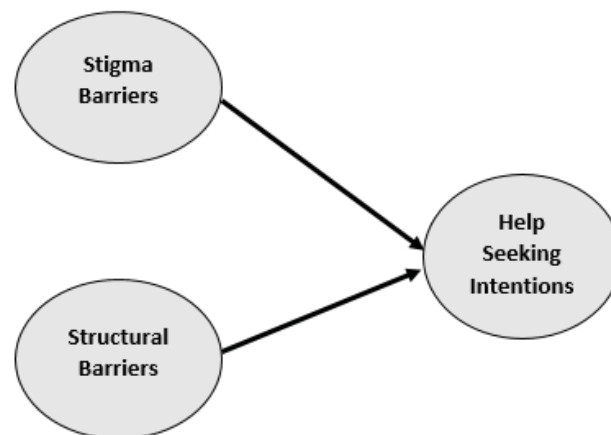


Figure 1: The PSBCPP-SS model (traditional model) of help seeking behaviour in the military.

The attitudinal barrier stigma, and structural barriers are two very different constructs that create perceived or real barriers to help seeking in different ways. The PSBCPP-SS is used extensively to measure these barriers. However, Britt (2000) did not explain the conceptual backing for how the items for this scale were created, and why other potential barriers were excluded. Although there was no empirical reasoning behind the development of the scale factors the following theory can be used to explain them. Linking barriers to help seeking to relevant existing theory enables a greater understanding of why these barriers may inhibit help seeking behaviour, and the direction of their relationship with help seeking. First, Social Learning Theory by Bandura (1977) will be considered. This theory takes into account how individual factors can influence behaviour, and that learning occurs via imitation, observation, and modelling of others behaviour and the environment. Behaviour is defined within the theory as, “the continuous, reciprocal interaction between cognitive, behavioural and environmental determinants” (Bandura & Walters, 1977, p.7). The three facets that make up the model; behaviour, personal factors, and environmental factors, are all relevant to the structural and attitudinal barriers to help seeking. Bandura states that most learning happens

indirectly through observation of others' actions and their consequences rather than direct experience. This means that perceived barriers in regards to help seeking can be learnt a number of ways. The structural barrier of not being able to get time off of work may be influenced by environmental factors such as having a very busy work schedule and regularly doing overtime, which would be direct learning. However, it may also be influenced by behavioural factors such as seeing colleagues denied work leave for other non-health related reasons. This is a form of modelling, which is learning through watching others behaviour and the outcomes of that behaviour. In this case, seeking time off work had negative outcomes, so the individual has learnt that it is not a worthwhile behaviour. Finally, personal factors may influence the perception of structural barriers. If an individual is a team leader, they may be concerned about taking time off work and leaving their team leaderless. Similar links can be made to stigma as an attitudinal barrier. An individual may have seen others ridiculed for being weak when seeking help, socio-cultural factors within the work environment such as a 'macho culture' of the military may play a part, and personal factors such as wanting to impress your leader or superior in the case of the military, for a chance to be on the next deployment (Iversen, et al., 2011). These may all contribute to varying levels to create negative stigmas around seeking help. It is important to note that modelling behaviour is not only physical but also occurs through conveying symbolic information verbally, which may be the case in terms of learning attitudinal stigma related barriers.

Further to this, the Social Learning Theory states that the relative importance of each of the three facets depends on the context and the specific behaviour (Bandura, 1977). Therefore, when considering barriers that contribute to learning the specific behaviour (i.e. seeking help or avoiding it) it is best to focus on factors relevant to the context and behaviour, to capture the possible influence of learning from behaviour, personal factors, and cognitive factors. The PSBCPP-SS ask context specific questions in direct relation to the behaviour of

interest. For example, the statement “If you were concerned about a mental health problem and did not seek help it would be because” followed by, “It would stop me from being deployed”, with responses options from strongly agree, through to strongly disagree. This specifies the behaviour, which in this case was not carried out. It then states a potential barrier, deployment, which is highly relevant to the military context. Based on the scale alone it would not be possible to know which of the three facets of the theory are most relevant to each barrier, however they are all recognised within the scale format.

The model of behaviour within Social Learning Theory is also referred to as ‘reciprocal determinism’, which means that an individual’s behaviour is changed by, and changes their personal factors and the environment (Bandura, 1977). Previous military help seeking literature has considered the effect of some barriers to care on help seeking behaviour, but seldom the effect of help seeking on barriers to care. Added support for this can be found in the area of goal pursuit and self-regulation theories, which state that once an individual forms the intention to carry out a particular goal, such as help seeking in this case, their cognitions in relation to accomplishing the goal become more available, and more general global barriers become less salient, while more practical barriers associated with achieving the goal become more salient (Forster, Liberman, & Higgins, 2005; Sheeran, Milne, Webb, & Gollwitzer, 2005). This means that they are more focused on the goal, therefore barriers directly related to achieving the goal may become more salient. Gerend, Shepherd, and Shepherd (2013) carried out a study looking at the perceived barriers of young females (18-26) to receiving the Human Papomalous Virus (HPV) vaccination, which vaccinates against the main strains of HPV that can cause genital warts and cervical cancer. They found that global perceived barriers to getting the vaccine were associated with the predictable negative intentions or neutral intentions to get the vaccine, whereas structural barriers showed a positive relationship with intentions. Due to the cross sectional nature of

the study no temporal data was available, to show specific changes in stigma attitudes in relation to intentions over time. However, a possible interpretation of the results is that when participants moved from being neutral or against receiving the vaccine, to making the decision to receive the vaccine, the barriers they focused on changed from more global attitudinal barriers to structural barriers. According to this theory once individuals form the intention to get the vaccine, their cognitions consider goal related structural barriers to carrying out the goal such as making an appointment. Although this is not help seeking behaviour, it is a health related behaviour and thus similar trends may be true for help seeking. In regards to help seeking, the perceived barriers may change as a function of whether or not the individual intends to seek help. This indicates the relationship for perceived barriers to help seeking model (as operationally defined by the PSBCCP-SS) may be reciprocal rather than simply barriers influencing behaviour.

Support for this was found in a UK military study by Jones, Keeling, Thandi, and Greenberg (2015). The study involved 1,636 military personnel who were surveyed post deployment and again six months later. The level of stigma (as an attitudinal barrier) reported was influenced by the stage individual's mental health symptoms were in. Those that had recovered from mental health problems reported significantly lower levels of stigma than those that had never been classified with probable mental health problems, and new mental health cases reported higher levels of stigma than both of these groups. It has also been found that military personnel report higher levels of stigma and structural barriers during deployment than post deployment (Osorio, Jones, Fertout, & Greenberg, 2013). This difference may be due to a number of factors including mental health training post deployment, the way problems are experienced due to combat, or that there are less valid stigma and barrier concerns at one's home base compared to a deployment setting (Britt & McFarden, 2012; Hanisch et al., 2016). Although the underlying factors causing the specific

differences seen in these studies is not clear, it does indicate that when the behaviour of interest is more realistic due to setting the goal to seek help, or the behaviour being more relevant such as when one has poor mental health, the barriers can change.

These findings are also in line with Construal Level Theory (Trope & Liberman, 2003), which is a theory that postulates that the temporal distance of events changes people's mental representation of them. Future events which are temporally distant are represented abstractly, are called high-level construals, and future events which are temporally near are represented in more concrete terms, are called low-level construals. Other psychological distances such as; spatial distance, which considers physical space; social distance, which is interpersonal space between individuals or groups; and hypothetical distance, which considers the likelihood of the event occurring, also affect the construals people use. Drawing on this theory it is likely that when individuals are asked to contemplate changing their behaviour to seek help for mental health problems, their responses to the barriers involved will vary depending on their perceived temporal need for changing their behaviour. If they perceive that seeking help is not necessary for some time, then the barriers are likely to be abstract. In the case of perceiving the behaviour to be relevant and therefore more temporally 'near', they are likely to consider more structural barriers, as these are related to carrying out their intentions. In regards to barriers, high-level construals would be attitudinal barriers such as "help seeking is a sign of weakness", and low-level construals would be structural barriers such as, "it would be hard to get time off work for an appointment". Therefore, if an individual recently or currently has mental health problems they are more likely to use low level construals associated with concrete thinking, resulting in greater salience of structural barriers, whereas individuals that have never had mental health problems are more likely to use high level construals to abstractly consider attitudinal barriers, such as stigma. In this case both temporal distance, and hypothetical distance are likely to drive high level construals.

Distinguishing help seeking barriers.

Returning to the finding of Gerend and colleagues (2013) study of intentions to receive the HPV vaccination raises another factor to consider when evaluating the PSBCPP-SS model of help seeking. Although the terminology used is often debatable, the use of structural barriers and attitudinal barriers as two separate factors according to Gerend et al., (2013) is paramount. Their study of HPV intentions found that perceived barriers are best considered multidimensional rather than as a single barriers to care factor. Conceptualizing barriers to care as a one dimensional construct can obscure important information about the relationship of specific barriers to behaviour, and also which barriers are most salient (Gerend et al., 2013). This was seen in their results, as when barriers to care were considered as one construct less variance was accounted for, and a negative relationship was seen with intentions to receive the vaccine. However, when global barriers such as vaccine safety and structural barriers such as vaccine cost were considered as individual constructs, a significantly larger variance was accounted for and some barriers were differentially associated with intentions. While practical barriers and stigma as an attitudinal barrier have been differentiated at a theoretical level, there is also statistical support that they are separate constructs as the items for each measure have been found to load onto two separate factors, with very little cross over. (Britt, 2000; Britt et al., 2008; Hoge et al., 2004). The PSBCPP-SS scale has shown to load onto the two factors supporting two separate constructs, and has repeatedly shown better internal reliability, and validity when loaded onto the factors separately (Britt et al., 2008; Sharp et al., 2015). Evidence to further support this was found in a study showing that stigma and structural barriers moderated the relationship between stressors and psychological symptoms, yet the construct that moderated the relationship was different for each of the two different samples used in the study (Britt et al., 2008). In a university student sample, stigma interacted with stress to predict depression, and in a

military sample structural barriers interacted with work overload to predict depression. This supports viewing stigma and structural barriers individually, yet by using the same tool allows for comparisons between the two constructs to be made across new and pre-existing literature, as seen in Gould and colleagues (2010) research across Armed Forces from different nations.

As with the above HPV study, the relationships between stigma and structural barriers with help seeking prove to be complex, with differentially associated relationships. A review by Sharp and colleagues (2015) looked at items from the Perceived Barriers to Care for Psychological Problems Stigma Subscale (PSBCPP-SS) that were commonly used to assess anticipated stigma and self-stigma. The review included cross sectional and prospective studies that looked at both intentions and actual help seeking. Of the 20 studies that met their inclusion criteria, only one found the predicted negative relationship between stigma and help seeking. That is, greater levels of stigma were related to lower intentions to seek help. Additionally, nine of the studies found no association, and four found a positive relationship. These positive relationships are somewhat counter intuitive with higher stigma positively relating to greater help seeking behaviours (Brown, Creel, Engel, Herrell, & Hoge, 2011; Elnitsky, Chapman, Thurman, Pitts, Figley, & Unwin, 2013; Jones, Twardzicki, Fertout, Jackson, & Greenberg, 2013). This is also in contrast to the majority literature concerning help seeking behaviour in civilian environments which has generally uncovered a negative relationship between stigma and help seeking (Clement et al., 2015). Although this review looked at only the attitudinal barrier stigma, there were mixed findings between stigma and help seeking. This may be due to comparing studies that use different samples from different contexts (i.e. different countries militaries). However, looking deeper into this review supports that considering only one type of barrier to care may overlook other important barriers. As just one example of many of the papers cited in Sharp's (2015) review, Sudom

and colleagues (2012) paper was reported to have no significant relationship between stigma barriers and help seeking propensity. Their paper did find structural barriers to be positively associated with greater care seeking propensity. This further supports the importance of considering attitudinal and structural barriers individually, however indicates that the PSBCPP-SS model only considering two barriers may not give the full picture.

It is likely that military personnel may face a significant number of barriers to care depending on individual factors. These can include negative repercussions to one's career, a lack of access to care, financial barriers, wanting to handle mental health problems alone, fear of social discrimination, lack of trust in professional help, a lack of confidentiality, a lack of mental health knowledge, and stigma (Corrigan, 2004; Dewa, 2014; Hanisch et al., 2016; Mojtabai, 2005; Mojtabai et al., 2011; Sareen et al., 2007; Yap, Wright, & Jorm, 2011; Wahl, 1999). In considering the potential shortfall of the PSBCPP-SS model to encompass the bigger picture of all potential barriers influencing help seeking behaviour in the military, two other barriers that are not included have shown to significantly impact help seeking. Firstly, Britt and McFadden (2012) noted that it may be more difficult for military personal to recognise that they have a mental health problem due to exposure to combat. The barrier itself is not physical but cognitive, and may be due to a military work environment that prioritises being resilient and self-sufficient and stigmatises failure to be tough. Secondly, Kim, Britt, Klocko, Riviere, and Adler (2011) found an additional attitudinal barrier; negative attitudes towards seeking help. This was found in addition to structural barriers and stigma as an attitudinal barrier. This barrier is the attitude that mental health care is ineffective. In Kim and colleagues (2011) study, stigma was not found to be associated with treatment use. However, negative attitudes towards care were associated with lower mental health care utilization. Britt and colleagues (2011) also noted that these negative beliefs about the efficacy of mental health care to help with mental health problems influenced help seeking

behaviour. Other attitudinal barriers that are not considered within the PSBCPP-SS have also been found to influence help seeking in military contexts, such as the efficacy or risk of mental health treatment, and self-management of mental health problems (Stecker, Fortney, Hamilton, & Ajzen, 2007; Vogt, 2011). These findings all point to a potentially wide array of barriers influencing help seeking in the military, and that although structural barriers and stigma play an important role, the scope of consideration would benefit from being widened beyond the PSBCPP-SS.

Limitations of the Current Model

Although the Perceived Barriers to Care for Psychological Problems Stigma Subscale model (PSBCPP-SS model) has many strengths, such as having items relative to a military context, and being thoroughly researched, there aren't highly consistent trends found between barriers to care and help seeking in the military using this model (*see* Sharp et al. 2015 *for review*). Examining some of the limitations of the PSBCPP-SS model can highlight how extending the model, may lead to a greater understanding of the factors that influence help seeking behaviours in a military context. Firstly, it is important to consider the questions and statements within the PSBCPP-SS model. Many of the items in the PSBCPP-SS are highly specific, which can be an asset, but also comes with potential downfalls. The strength of this lies in the questions being relatable and relevant to personnel in the military context, however the specificity means that it is possible to overlook factors that would be captured if the items were more general. For example, "My unit leadership / manager might treat me differently", relates specifically to their workplace, however for some personnel it may not be their unit leader or manager that is their concern when considering how they will be treated. It may be their spouse, subordinates, or workmates. In this example the question has been too specific to capture all relevant influences, but it has also been found that the PSBCPP-SS has missed

entire factors. For example, Kim and colleagues (2011) identified a third factor additional to structural barriers and stigma which they termed, “negative attitudes towards seeking help”. This factor is essentially an attitudinal barrier in which the individual feels that mental health care is ineffective and will not help them. Other factors both within military and general help seeking literature have also been identified, which are not covered under the current model (Stecker, Fortney, Hamilton, & Ajzen, 2007; Vogt, 2011). To overcome this a step backwards to look more broadly at larger scale factors influencing help seeking is needed. Stigma and negative attitudes towards help seeking have both been found as attitudinal barriers, therefore rather than the current method of making a model based on a small number of logically informed predictions of specific barriers, a broader set of enquires may help to start wide and narrow down to these factors, so that fewer are overlooked. A more general model of behaviour looking at a wider variety of factors than the PSBCPP-SS may reduce factors that have not yet been considered. This would allow more direction into which areas account for variance in help seeking behaviour, allowing for more directed evidence into which particular barriers are the most salient.

Considering these limitations, the question of whether to discard the PSBCPP-SS model may arise, however these limitations create reasonable opportunity to extend the current model, and add to the rich literature that has already gone into military help seeking. By extending the model there is potential for making sense of the previously mixed findings that have looked at highly specific barriers, by putting them into the context of a model that looks at a wider more general view of factors that influence behaviour.

The Theory of Planned Behaviour

The Theory of Planned Behaviour to predict help seeking in the NZDF.

A key outcome of Sharp et al's (2015) review of military help seeking literature found it to be limited due to a lack of commonly accepted behavioural models from general help seeking literature being studied, and instead two core factors (structural barriers and stigma as an attitudinal barrier) have been examined using a tool unique to military literature (PSBCPP-SS by Britt, 2000; Britt et al., 2008; Hoge et al., 2004). Research surrounding PSBCPP-SS has not found any definitive results of the relationship, suggesting many factors beyond the PSBCPP-SS may be contributing to help seeking behaviours. Therefore, it may be valuable to use a theoretical framework, which has been successful across a variety of settings, to guide future investigations. Using a behavioural model that has shown to stand up in causal analysis will allow for a deeper understanding of the relationship between predictive factors and intentions to seek help for mental health problems, and also widens the scope to somewhat comparative literature from other non-military areas. Additionally, it is important not to disregard the previous literature which used the PSBCPP-SS model because although there is a lack of consistency in the relationships between barriers and help seeking, there is a great deal of highly informative research, which has highlighted the importance of context in help seeking behaviour. A model which has the ability to incorporate the specific structural barriers and stigma, into broader factors would allow for a clearer picture of which factors influence help seeking behaviour in the military, and how they are assimilated. The Theory of Planned Behaviour offers a theoretical model suitable for investigating the relationship between potential predictors and intentions to seek help for mental health problems in the NZDF (Ajzen, 1991; Ajzen, 2011). It allows for a broader view of factors previously found to influence a wide variety of behaviours, while having the ability to account for the more specific factors previously examined.

Overview of the Theory of Planned Behaviour.

The Theory of Planned Behaviour is a model which distinguishes between three conceptually independent constructs of attitude, subjective norm, and perceived behavioural control, and the ability of these constructs to predict and explain human behaviour in specific contexts (Ajzen, 1985; Ajzen, 1991; *see* Figure 2.). The theory is adapted from Ajzen and Fishbein's (1980) earlier Theory of Reasoned Action, with the addition of perceived behaviour control to account for a lack of volitional control in some situations. The model aims to go beyond merely predicting specific behaviours to explaining the underlying beliefs, which are antecedents to the predictive constructs of the intended behaviour. The theory proposes that the behaviour is a function of the beliefs based on salient information relevant to the behaviour. The intention to either carry out or withdraw from a behaviour is assumed to capture the motivational aspects that influence the actual behaviour in question.

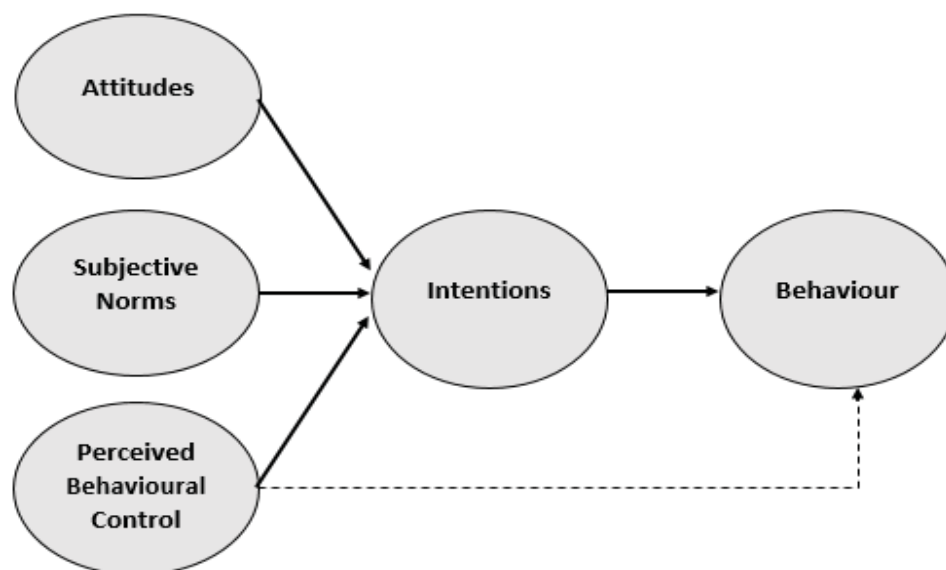


Figure 2. A model of The Theory of Planned Behaviour (Ajzen, 1985).

The first predictive construct of the model is the attitude of an individual towards the intended behaviour, that is, the degree to which they feel favourable or unfavourable about the behaviour (Ajzen, 1985; Ajzen, 1991). Attitudes within the Theory of Planned Behaviour are a state of readiness for response to all relevant situations and objects. Attitudes are

measured in regards to a specific behaviour, which typically encompasses an individual's positive or negative evaluations toward the behaviour (Allport, 1967). Individuals with positive attitudes towards specific behaviours are logically more likely to have positive intentions and to engage in the behaviour. However, attitude alone does not account for behaviour. Studies have found that the correlation is not direct, and individuals with the same attitudes often don't behave in the same way (Ajzen & Fishbein, 1977; Fishbein, 1967). The theory states that this is accounted for by a lack of complete volitional control and other background factors, which will be discussed later in the chapter.

The underlying beliefs and evaluations influencing attitude within the theory are referred to as behavioural beliefs and outcome evaluations. Ajzen and Fishbein (1975) explain behavioural beliefs using an expectancy-value model, in which attitudes develop from the beliefs an individual has about the object of the attitude. These beliefs are established by associating positive or negative attributes with the object, such as associating it with certain events, characteristics, or other objects. When looked at in terms of a specific behaviour such as help seeking, one of the attributes considered that may contribute to the development of behavioural beliefs is linking the behaviour to predicted outcomes. These predictions of outcomes contribute to outcome evaluations. When the outcome is considered to be associated with positive consequences, the individual will favour the behaviour, and vice versa with negative consequences. For example, an individual may hold a positive belief that help seeking will aid them in overcoming mental health problems, and will therefore be likely to seek help.

The next construct in the Theory of Planned Behaviour is subjective norm, which can be understood as a social factor that takes into account the perceived social pressure to either perform or not perform a behaviour. This pressure is based on the normative expected social behaviours within the specific societal context (Ajzen, 1985; Ajzen, 1991). Normative beliefs

are based on whether important referent groups or individuals approve or disapprove of performing the specific behaviour. Normative beliefs and the motivation to comply with normative beliefs underlie subjective norms. These are evaluated through the perceived social pressure of whether or not the referent would approve of the individual performing the behaviour, and whether or not the referent would perform the behaviour themselves. These normative beliefs are then multiplied by how motivated the individual is to comply with them. For example, the referent may not approve of an individual seeking help for mental health problems, and would not seek help themselves, but if the individual's motivation to comply was high it could negatively influence help seeking behaviour, but if it was low it may not affect their help seeking behaviour.

The final construct is perceived behavioural control and was added to the original Theory of Reasoned Action to create the Theory of Planned Behaviour (Ajzen, 1985; Ajzen, 1991; Ajzen & Fishbein, 1980). Perceived behavioural control refers to the perceived control one feels they have to carry out the behaviour, taking into account the perceived ease or difficulty in performing the intended behaviour, based on the presence or absence of required opportunities and resources. This construct is assumed to reflect anticipated obstacles and enablers of the behaviour, as well as past experiences related to the intended behaviour. As with attitudes and subjective norms, perceived behavioural control is theorised to indirectly influence the behaviour through intentions, but unlike the other constructs it also has the ability to directly influence the behaviour over and above an individual's intentions. This is due to perceived behavioural control accounting for non-volitional control over factors associated with the behaviour. For example, an individual may have high intentions to seek help for mental health problems, but at the time they have problems the role of who they would seek help from is vacant and they don't know of any other avenues to seek help. Therefore, despite positive intentions, a lack of volitional control over the behaviour due to

the circumstances means that perceived behavioural control directly impacts the help seeking behaviour. This direct relationship was supported by Armitage and Conner (2001) in an analysis of 185 studies that found perceived behavioural control accounted for significantly more variance in behaviour, independent of the reasoned action predictors. However, it is important to note that perceived behavioural control can only directly predict the behaviour when the perceived control approximates true control over the behaviour. Control beliefs are influenced by second hand factors such as information from others, experiences by others, and all other information that impacts the perceived ease or difficulty in carrying out the specific behaviour. Control belief strength and control belief power are the explanatory antecedents of perceived behavioural control. Control belief strength is high when individuals perceive greater opportunities and resources, along with fewer impediments and obstacles. In comparison, the control belief power is based on how influential the control beliefs are determined to be in relation to carrying out the behaviour. The theory states that the perceived behavioural control is made up of each individual control belief being multiplied by the perceived power, and all results being summed to produce the overall salience contributing to predicting intentions.

The Theory of Planned Behaviour makes several assumptions for the above constructs to adequately predict behavioural intentions and the associated behaviour. Firstly, the theory predicts behaviour only in specific contexts and does not account for behaviour across variable situations. Attitudes, subjective norms, and perceived behavioural control are all based on underlying beliefs relevant to the behaviour in a specific situation, and given a change in timing, context, or behaviour there may be a change in underlying beliefs due to basing them on different information and experiences. For this reason, when measuring the three constructs, Azjen (2002a) recommends they must be measured in regards to the precise target, actions, context, and time. Additionally, the relative importance or variance accounted

for by each of the three variables within the theory fluctuate across different contexts and for different behaviours. The next assumption is that the stronger the intention to participate in the behaviour the more likely it is the individual will engage in the given behaviour. These intentions to carry out the behaviour or withdraw from it are anticipated to capture the motivational influences associated with the actual behaviour. However, as stated above this assumes that the behaviour is under complete volitional control, and is often not the case, as a lack of control can directly influence an individual's ability to engage in a behaviour. These are non-motivational factors such as a lack of resources or opportunities required to carry out the behaviour. Therefore, unless the behaviour is under complete volitional control there will not be a one to one correlation between intention and actual behaviour. Ajzen and Fishbein (2005) also state that so-called 'back-ground factors', such as values, stereotypes, age, gender, education, and culture can have an impact of both intentions and behaviour, but only indirectly through their impact on the three predictors, attitudes, subjective norms, and perceived behavioural control. A longitudinal study by Nagai (2015) examined the relationship of help-seeking intentions, subjective needs, and depressive symptoms in University students. As with previous literature, help seeking intentions did prospectively predict actual help seeking behaviour, supporting the theorised relationship between the two (Ajzen, 1991; Gross & McMullen, 1983). However, subjective needs, which was measured by the problems experienced by the students, was the only factor to show a positive effect on both intentions and behaviour. Depressive symptoms were negatively related to help seeking intentions, but positively related to actual help seeking. This indicates the assumption of the theory that background factors can only indirectly influence the actual behaviour may not always hold up in practice.

Empirical research of help seeking using the Theory of Planned Behaviour.

A meta-analysis of 185 studies, found the Theory of Planned Behaviour to predict behavioural intentions and actual behaviour, accounting for, on average, 39% of variance in intentions (Armitage & Conner, 2001). Additionally, perceived behavioural control accounted for significantly greater variance than the original Theory of Reasoned Actions predictors alone, supporting the more recent model. The theory has also been successfully used in research to explain a wide variety of health related behaviours (Godin & Kok, 1996). Among the health related literature, it has also been used in New Zealand contexts, predicting 39.7% of variance in athlete's intentions to use sport psychology (Anderson, Hodge, Lavalley, & Martin, 2004), and 43-44% of inmate's intentions to seek help for personal emotional problems (Skogstad, Deane, & Spicer, 2006).

The Theory of Planned Behaviour's application to help seeking behaviours has emerged in the past decade, and is generally effective at predicting significant levels of variance using the three variables (Mak & Davis, 2013; Mo & Mak, 2009; Nagai, 2015; Schomerus, Matschinger, Angermeyer, 2009; Skogstad, Deane, Spicer, 2006; Smith, Tran, & Thompson, 2008; Westerhof, Maessen, de Bruijn, & Smets, 2008). When applied to help seeking for mental health services, the literature considers people's willingness, intentions or actual behaviour of seeking professional mental health care. Attitudes often account for the greatest variance in seeking help for mental health problems (Mo & Mak, 2009; Schomerus et al., 2009). Subjective norms of social referents in general Theory of Planned Behaviour research has often been found to account for the least variance out of the predictors (Armitage & Conner, 2001; Godin & Kok, 1996). However as stated by Azjen (1991) the variance accounted for by each predictor varies according to the context. This was seen in both Mo and Mak (2009) and, Mak and Davis's (2013) studies of help seeking in Chinese society. In both traditional and modified versions of the Theory of Planned Behaviour,

subjective norm accounted for greater variance than attitudes. This was attributed to cultural factors, such as the prominence of interpersonal relatedness in a collective culture, and highlights the situational importance of all three predictors in accounting for mental health help seeking using the theory.

The Theory of Planned Behaviours application to military help seeking is currently limited, however by drawing on studies with similarities in the context used, and looking at the few studies that have been done, it is feasible that the Theory of Planned Behaviour could effectively explain help seeking in a military setting. Firstly, a study by Hyland, Boduszek, Shevlin, and Adamson (2012) used the Theory of Planned behaviour in both its original form and a modified form accounting for self-efficacy, to look at Irish police officer's intentions to seek psychological counselling. Both versions accounted for significant variance with up to 92.6% accounted for in the modified model. Although there are many obvious differences in police officers and military personnel, there are also some similarities that can be drawn. For example, both roles can be highly stressful and involve higher rates of traumatic events including physical and potentially life threatening conflict (Britt & McFadden, 2012; Hyland et al., 2012; Rona et al., 2009). This has been identified to lead to higher levels of mental health problems in both professions. Whilst this association is only speculative, the Theory of Planned Behaviour's ability to predict help seeking in the police force is promising for its potential ability to predict it in the Defence Force. Another promising link comes from Smith, Tran, and Thompson's (2008) success in showing attitudes towards help seeking to mediate the relationship between traditional masculinity ideology and intentions to seek help. A military-masculine gender ideology has been identified as inhibiting military personnel's ability to recognise emotional needs (Morgan, 1994). Considering these findings, the application of the Theory of Planned Behaviour to a military context may be valuable as the

attitudes predictor within the model may be useful in accounting for underlying beliefs such as masculinity stereotypes.

The Theory of Planned Behaviour has not been widely utilized in military mental health studies, however the findings from the handful of literature available suggest that the theory is likely a good candidate for examining help seeking in a military context. The most relevant study to date was carried out by Britt and colleagues (2011), which used the theory to look at predictors of treatment seeking in reserve component veterans in America. Participants that indicated they had current stress or emotional problems were grouped into those that had sought help in the preceding six months and those that hadn't. Attitudes, subjective norms, and perceived behavioural control were all measures. Additionally, it was theorised that perceived stigma and the belief that problems should be handled without treatment, or were not severe enough to warrant treatment, were antecedents to attitudes, and structural barriers were antecedents to perceived behavioural control. They found that overall attitudes did predict unique variance for treatment seeking, however subjective norms and perceived behavioural control did not. The theory states that depending on the behaviour in question the variance accounted for by each of the three factors differs, therefore this indicates attitudes are highly important to help seeking in this particular group. Furthermore, the theorised antecedents were significantly related to the predictors, however beliefs about psychological problems and treatment uniquely predicted variance in help seeking behaviour even when attitudes were accounted for. This is not in line with the theory of planned behaviour as it states all other factors should be fully mediated by the three core predicting factors of the model. (Ajzen, 1985). Though this finding isn't in line with the Theory of Planned Behaviour this study shows the efficacy of the theory to account for pre-existing factors such as stigma, treatment beliefs, and structural barriers in this case, whilst highlighting the variance accounted for by larger factors such as attitudes, subjective norms,

and perceived behavioural control. A potential limitation of their study was the lack of enquiry into the relationship between the antecedents and the other predictors. For example, structural barriers may influence attitudes, or stigma may influence the perceived control individuals feel they have over seeking help. Yet the findings for this study may have practical relevance, as it shows that structural barriers are associated with perceived control, however this is not influencing help seeking to the same degree as the antecedents associated with attitudes, therefore a focus on attitudes may aid help seeking to a greater degree than perceived control. These findings highlight the potential for the practical utility of using the outcomes of the theory of planned behaviour to inform initiatives to aid mental health help seeking in military settings such as the NZDF.

Context and Group Level Differences

The context in which behaviours are carried out can strongly influence the behaviour itself. Context may affect behaviours in a variety of ways and to different degrees, but by focusing on the wider context of interest and accounting for more specific recognised group level differences the impact of the specific context can be better understood. The wider context of interest in this case is the NZDF military context. Within the Theory of Planned Behaviour group level differences are referred to as background factors and are hypothesised to indirectly predict behavioural intention through the effects they may have on attitudes, subjective norms, and perceived behavioural control (Ajzen & Fishbein, 2005). Although there are infinite factors that could impact behaviour, this chapter will briefly highlight those previously identified in both military and the Theory of Planned behaviour literature as relevant to help seeking behaviour.

Rank.

Rank refers to the positions of hierarchy within a military workplace. It has been closely linked to factors relevant to help seeking behaviour such as the attitudinal barrier stigma. A study of the link between negative stigma and hierarchy in a non-military workplace has shown that employees are worried that their managers will have negative opinions of them if they find out that they are seeking help for mental health problems (Walton, 2003). The NZDF, like most military contexts, upholds a rigorous hierarchical organisation, in which individuals must adhere to the commands of their superiors (Adler & Castro, 2013). Therefore, it is likely that any felt impact of stigma in non-military workplaces from leaders is likely to be exacerbated in a military context, leading to greater differences between individuals of different ranks. This is supported by Sharp and colleagues (2015) review of stigma in the military findings, which showed the most endorsed stigma items to be “My unit leadership might treat me differently”. No rank level data was available from their study, yet it does indicate that leaders are of the biggest concern for military personnel involved in these studies. Those higher up with fewer leaders or superiors to answer to may not feel the salience of this stigma to the same degree as those of a lower rank who have many higher ranks to report to. On the other hand, military organisations are traditionally triangular in hierarchy, with fewer leaders at the very pinnacle, therefore the majority of respondents in these studies were likely to be of mid to lower rank with many leaders above them. A study looking at early mental health interventions for US military personnel post deployment found that better mental health outcomes were associated with higher ranks (Adler, Bliese, McGurk, Hoge, & Castro, 2009). This could be due to many factors, such as fewer leaders or superiors, having greater self-efficacy and associated perceived control due to successfully climbing in their career, having more knowledge of resources available, or

having experience with others or themselves overcoming mental health problems through treatment.

The importance of considering rank when looking at help seeking for mental health problems can also be found in military leadership literature. Studies have shown that superiors can positively influence help seeking by making it clear to their team that they validate the idea that post-traumatic stress disorder (PTSD) and other mental health problems come from exposure to extreme stress rather than a personal failing, and that seeking help is a sign of maturity rather than weakness (Greene-Shortridge, Britt, & Castro, 2007). Better leadership has also been directly linked to lower levels of stigma and structural barriers (Wright et al., 2009). Additionally, a survey of military leaders from different countries found that contrary to many individuals' fears, leaders actually have positive feelings about their personnel seeking help for mental health problems (Adler et al., 2008). These findings highlight the role leadership can play in help seeking, and combined with the organisation's hierarchical structure, how this may impact either positively or negatively at a rank level. Considering rank will create a greater understanding of any group differences, which would allow for more specific help seeking interventions for any ranks found to be more aversive to help seeking.

Distress.

Jones and colleagues (2015) found that reported stigma and structural barriers in military personnel change over time depending on the status of individual's mental health problems. Specifically, they found that those that were currently experiencing mental health problems were significantly more likely to report greater stigma and structural barriers associated with help seeking. This was in line with earlier research which reported similar findings. Hoge and colleagues (2004) found that of the 6,201 US military personnel surveyed

prior to or after deployment to Afghanistan and Iraq, those who were identified to have a mental disorder were more than twice as likely as those who didn't to report stigma and structural barrier concerns in regards to seeking help for mental health problems. Research of stigma and structural barriers across armed forces from different countries also found this common theme of more prominent stigma and barrier concerns for those with probable mental health problems (Gould et al., 2010). Iversen and colleagues (2011) looked more specifically at post traumatic stress disorder (PTSD) and again found that those presenting with symptoms for PTSD indicated greater stigma and structural barrier concerns.

Sharp and colleagues (2015) review of stigma and structural barriers in the military found that although there was an increase in stigma and structural barriers with an increase in mental health problems, there was also an increase in help seeking with an increase in stigma and structural barriers. Schomerus and colleagues (2009) used the Theory of Planned Behaviour to compare those with depressive symptoms to those without. The theory accounted for comparatively more variance accounted for by attitudes in the depressed subgroup, leading to the conclusion that attitudes and beliefs about help seeking were more salient in those that were depressed. This study was based in Germany, whilst another help seeking study based in China found no significant impact of symptom severity when using the Theory of Planned Behaviour model (Mak & Davis, 2013). It seems that although different forms of mental health distress may in some cases not impact help seeking, they have proven to in some situations, therefore consideration of distress levels should be given when analysing the relationship between the proposed predictors of help seeking intentions and behaviour.

Deployment history.

Deployment can have many adverse effects on military personnel's mental health due to the experiences involved, the environment they are deployed to, exposure to combat, and separation from loved ones (*for example see*, Victoria 4 Company, 2011). Osorio and colleagues (2013) found that military personnel reported higher levels of stigma and structural barriers to mental health care during deployment compared to post deployment. It was suggested that this may be due to stigma and structural barriers being more valid concerns during deployment and experienced differently during deployment due to the ways problems are processed due to combat (Britt & McFarden, 2012; Hanisch et al., 2016). Another more positive factor that has been identified as playing a role in this relationship is the mental health training that is given post deployment. Post deployment mental health training is widely used in military settings including the NZDF and offers education about common mental health disorders including the signs to look out for and where to get help. This training may dilute or mitigate some of the barriers, for example not knowing where to get help. Osorio et al (2013) did not make any comparisons between those that have never been deployed and those that have. During deployment many of the factors stated above are unavoidable, and resources may be limited, however personnel at their home base have the resources available if they seek help. Therefore, by considering differences in help seeking behaviour between those who have been deployed and those who haven't will help to create a better understanding of the lasting influence of deployment on help seeking in military personnel.

Age and gender.

There are inconsistencies in the help seeking literature regarding both age and gender as a predictor of intentions to seek help and other mental health related behaviours. Older age

has been associated with a lack in confidence in professional psychologists, more negative beliefs about mental illness, greater stigma in using mental health services, attribution of mental health problems to old age, positive attitudes towards self-reliance, and lower feelings of control to accessibility of professional care (Corrigan, Swantek, Watson, & Kleinlein, 2003; Lebowitz & Niederehe, 1992; Sarkisian, Lee-Henderson, & Mangione, 2003; Segal, Coolidge, Mincic, & O'Riley, 2005; van Zoonen et al., 2015). Nevertheless, this is not always the case, as seen by MacKenzie, Gekoski, and Knox (2006) who carried out a study to better understand how attitudes negatively influence help seeking intentions with age and gender. Contrary to their predictions, it was actually found that older age was associated with more positive help seeking attitudes and greater intentions to seek help from primary care physicians. Their finding that women were also more likely to have positive attitudes towards mental health help seeking was on the other hand in line with previous findings.

It has been recognised that men generally have more negative attitudes towards help seeking (Fischer & Turner, 1970; Komiya, Good, & Sherrod, 2000; Mackenzie, Knox, Gekoski, & Macaulay, 2004; Timlin,-Scalera, Ponterotto, Blumberg, & Jackson, 2003). Yet, as previously indicated this finding does not always hold up in the research upon closer examination. A meta-analysis examining student participant studies with a total of 5,713 participants found that women had more favourable attitudes towards seeking professional psychological help than men, independent of culture (Nam et al., 2010). However, when other factors such as distress and social support were controlled for there was no gender difference seen in attitudes towards help seeking (Nagai, 2010; Vogel & Wester, 2003; Vogel, Wester, Wei, & Boysen, 2005). In other studies, such as that by Zonnen and colleagues (2015) which considered sociodemographic factors and depressive symptoms in regards to attitudes to mental health care, they found that being male was associated with more positive attitudes. Therefore, although the majority of evidence leads towards older age

and male gender being associated with more negative attitudes towards help seeking, the relationship may differ depending on the context. The military's unique 'macho' culture creates a context in which male gender stereotypes are encouraged which may intensify any male group differences, and may influence females to lean toward more stereotypically masculine views of help seeking behaviour (Iversen et al., 2011). Being aware of and examining age and gender differences will allow for better understanding of military help seeking behaviour and may also allow comparisons with main stream literature from less masculine focused contexts.

Past behaviour.

Whilst past behaviour can be used to accurately predict future behaviour, it is not causal (Conner & Armitage, 1998). A review by Ouellette and Wood (1998) of 60 studies that looked at past behaviours, found that repeating a behaviour across situations over time can lead to the behaviour becoming habitual. When conscious decision is minimal past behaviour habits directly predict future behaviour but when behaviours are more complex and require cognitive decision making, rather than a direct habitual influence, an indirect influence through attitudes and subjective norms occur. This notion is supported by findings that prior contact with psychologists positively affect both help seeking attitudes and intentions, and increases service utilization (Fischer & Farina, 1995; MacKenzie et al, 2004; Pescosolido & Boyer, 1999; Shirom & Shperling, 1996; Solberg et al., 1994; Surgenor, 1985). Though Azjen (1991) maintains that past behaviour would not add to the predictive power of the model, but instead would be mediated by predictors in the model, considerable evidence has been found to contradict this claim (Azjen, 2002b; Conner & Armitage, 1998; Honkanen, Olsen, & Verplanken, 2005; Ouellette & Wood, 1998; Shim & Maggs, 2005). Some claim that because past behaviour is not causal it is principally not useful, especially if

the purpose of gaining greater understanding is to intervene to create behavioural change such as increasing help seeking (Elliott, Armitage, & Baughan, 2003). Although the relationship of past help seeking behaviour is not causal and not always examined, it may be worthwhile to consider as a measure of how well intention in the Theory of Planned Behaviour is likely to account for actual help seeking behaviour. If those with high past help seeking behaviour correlate with those with high intention and vice versa with low past behaviour, it will give a good indication that the intentions measured are likely to be in line with actual future behaviour.

Rationale for the Present Study

Military personnel have been identified as disproportionately unlikely to seek help for mental health problems, which is highly problematic due to the stressful nature of the role, and the requirement to be mentally prepared at all times from a safety aspect (Britt & McFadden, 2012; Clement et al., 2015). Although there is limited research in this domain, the data available indicates NZDF personnel may be seeking help for mental health problems at lower rates than the general New Zealand population (NZ Mental Health Foundation, 2014). Despite the fact that in the past decade structural barriers and stigma have been researched in the military as potential predictors of help seeking, a lack of consistent evidence has been found (Sharp et al, 2015). Contextual factors such as current mental health status have been identified as playing a role in the relationships between stigma and structural barriers, with help seeking (Jone, Keeling, Thandi, & Greenberg, 2015). Although structural barriers, and stigma as an attitudinal barrier to care, are the core focus of previous military help seeking research, there is insufficient evidence thus far, so using a model that has previously been successful in predicting other health related behaviours may be beneficial in better understanding help seeking in the NZDF.

The Theory of Planned Behaviour considers attitudes, subjective norms, and perceived behavioural control to directly predict behavioural intentions, which are directly linked to actual behaviour (Ajzen, 1991). This model assumes that external factors affect behavioural intentions indirectly through the three predictors, and these predictors mediate the impact they have (Ajzen & Fishbein, 1980; Ajzen, 1991). The theory has successfully been applied to help seeking behaviours in many contexts (e.g. Britt, et al., 2011; Mak & Davis, 2013; Mo & Mak, 2009; Nagai, 2015; Schomerus et al., 2009; Skogstad et al., 2006; Smith et al., 2008; Westerhof et al., 2008), yet is so far limited in military settings. There are many potential advantages of the model both from a research and practical perspective. The theory goes beyond simply describing the relationships to explaining the underlying beliefs influencing the predictors of the help seeking behaviour. This is important as it will allow a deeper level of understanding of help seeking in the military. Additionally, if the predictors and associated beliefs that account for the greatest variance in help seeking are identified they can potentially be targeted to aid more positive help seeking behaviours in the NZDF. A further benefit of this particular theory is it allows for the incorporation of factors that have previously been highlighted as important to military help seeking, such as stigma and structural barriers. This may be indirectly through the three predictors, or directly as the theory is receptive to the inclusion of additional predictors (Ajzen & Fishbein, 1980; Ajzen, 1991).

Furthermore, much of the previous research uses small sample sizes or highly niche sample contexts (e.g. directly after deployment, primarily lower ranks, or only one branch of military such as navy, army, or air force), which reduce generalizability to other military setting such as the NZDF and reduces the ability to carry out between-group analyses (Sharp et al., 2015). The study will use data from the largest NZDF mental health survey, from across all ranks, and covers all three forces. This will allow for a greater understanding into a

New Zealand specific military context and differences at the group level. The findings of this study will not only build greater theoretical understanding of help seeking in militaries but potentially holds practical utility. By understanding what factors account for greater variance in promoting help seeking, and those barriers that account for a reduction in help seeking intentions, resources and interventions can be targeted more directly to aid more positive help seeking intentions, which in turn should result in better mental health within the NZDF. The addition of evaluating group level differences may assist the NZDF in targeting education, intervention, and treatment around mental health and help seeking towards the most at risk groups. Due to the Theory of Planned Behaviours ability to go beyond simply describing the relationships to explaining the underlying beliefs, these beliefs can then be targeted to positively encourage help seeking in NZDF personnel. With the ultimate long term goal being to aid the NZDF with their objective to encourage help seeking when it is needed so everyone is mentally well for both work within the organization and in their broader life.

The Present Study

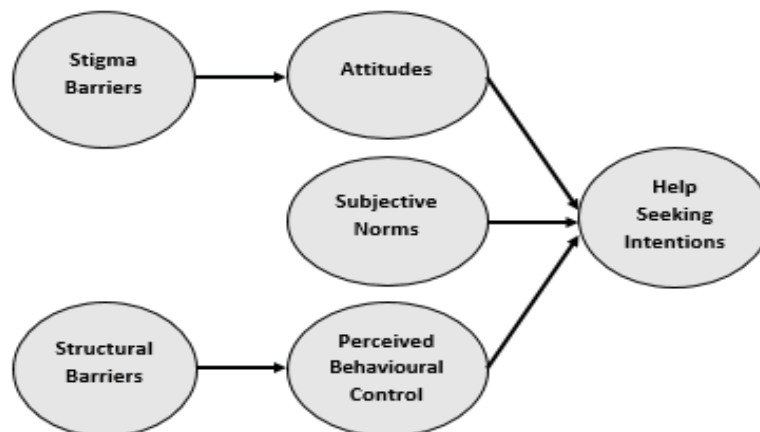


Figure 3. A modified version of the Theory of Planned Behaviour (Ajzen, 1985) to include the antecedents Structural Barriers and Stigma Barriers.

The purpose of the present study is to integrate and extend the currently limited understanding of military help seeking by considering tools used in past military help seeking literature with a behavioural model used in the wider help seeking field. Past military help seeking literature has used tools such as the PSBCPP-SS, which may not be eliciting broad enough factors to get the full picture of what is needed to best predict help seeking. This has led to mixed results across studies (Britt, 2000; Britt et al., 2008; Hoge et al., 2004; Sharp et al., 2015). Extending the current research, using The Theory of Planned Behaviour, which is an empirically supported, social-cognitive model of behaviour, will allow for a more comprehensive understanding of the psychological beliefs underlying one intentions to engage in help seeking. The particular model also allows for the incorporation of the previously assessed factors as antecedents to the three factors within the Theory of Planned Behaviour (*see* Figure 3). Attitudes are hypothesised to mediate the relationship between stigma barriers and intentions to seek help, as stigma barriers are the negative attitudes and beliefs individuals and society hold in regards to the behaviour of interest. While perceived behavioural control is hypothesised to mediate the relationship between structural barriers

and intentions to seek help, because structural barriers are the physical and practical barriers that hinder help seeking and are likely to influence the degree of control an individual feels they have over carrying out the behaviour.

Aims and hypotheses of the present study.

The first aim of this study is to examine the Theory of Planned Behaviour as a useful model to predict intentions of NZDF employees to seek help for mental health problems. Furthermore, compare the Theory of Planned Behaviour to the traditional model which looks at structural barriers and stigma as predictors of help seeking behaviour.

H1i: Attitudes, subjective norms, and perceived behavioural control will significantly predict help seeking intentions for mental health problems in the near future.

H1ii: Attitudes, subjective norm, and perceived behavioural control will account for greater variance explained in predicting help seeking intentions for mental health problems in the near future than structural barriers and the attitudinal barrier stigma.

Secondly, the model will be extended to consider how structural barrier and stigma are integrated into the model, and their contribution to help seeking behaviour. This will be assessed through the potential mediation effect attitudes have on the relationship between stigma and intentions to seek help, and perceived behavioural control have on the relationship between structural barriers and intentions to seek help (Ajzen & Fishbein, 1980; Ajzen, 1991).

H2i: Attitudes will mediate the relationship between the attitudinal barrier stigma and help seeking intentions for mental health problems in the near future.

H2ii: Perceived behavioural control will mediate the relationship between the structural barriers and help seeking intentions for mental health problems in the near future.

Finally, groups that have been identified as probable to differ in help seeking behaviour will be analysed using the Theory of Planned Behaviour. The purpose of this is to identify any groups within the NZDF that are at greater risk of low help seeking for mental health problems and to identify if and where the predictors of behaviour differ between these groups. For this next set of hypotheses, the study will investigate differences between the following groups: Rank, distress level, past help-seeking behaviour, deployment history, age and gender.

H3i: Those with higher rank will have greater intentions to seek help for future mental health problems in the near future compared to those of lower rank.

H3ii: Those with high distress levels will have lower intentions to seek help for future mental health problems in the near future compared to those low distress levels.

H3iii: Those with past help seeking behaviour will have greater intentions to seek help for future mental health problems in the near future compared to those without past help seeking behaviour.

H3iv: Those who have deployment history will have greater intentions to seek help for mental health problems in the near future compared to those that have never been deployed.

H3v: Younger personnel will have greater intentions to seek help for mental health problems in the near future compared to older personnel.

H3vi: Females will have greater intentions to seek help for mental health problems in the near future compared to males.

CHAPTER TWO

Methods

Study Design

A cross-sectional study design was used to investigate the effect of attitudes, subjective norms, perceived behavioural control, stigma, and structural barriers on intentions to seek professional help for mental health problems. Additional measures and demographic data which were seen as potentially relevant to the above relationships were also gathered for analysis. As the current study looked at theorised structures based on individual's beliefs, and personal perceptions of measures, a self-report survey was utilised. Self-report data enables a first-hand understanding of what may be underlying the behaviour of interest, which in the case of this research is help seeking for mental health problems. Low risk ethical approval was granted for this research by Massey University (*see* Appendix A). Additionally, the New Zealand Defence Force's Organisational Research Team has approved this research and ensured it complied with ethical guidelines (*see* Appendix B).

Participants

Participants were recruited by the NZDF for a larger survey that this study was part of. All employees including civilian, reserve, and uniformed personnel were invited by email to participate in the online survey. Civilian data was excluded from analysis as it is not relevant to the current studies focus. The sample did not include personnel that were currently deployed. Personnel that had no or limited access to computers were invited to complete a paper version but due to time restraints were not included in the data for this study. In both the invitation email and first page of the survey it clearly stated that participation was not compulsory and the survey was anonymous (*see* Appendix C & Appendix D).

The initial sample consisted of 2633 people and of those 7 participants were deleted due to greater than 25% incomplete data, leaving 2626 participants (2078 males, 528 females and 5 other). Of the participants, 24% ($N=620$) were Navy, 36% ($N=957$) were Air Force, and 39% ($N=1023$) belonged to the Army. All participants were 17 years of age or above; this being the minimum age of employment in the NZDF. The age of the participants ranged from under 20 years old to over 60 years old, with the median age in the 30-39 category. Participants came from all ranks, with 883 (34%) junior non-commissioned officers (Junior NCO), 792 (30%) senior non-commissioned officers (Senior NCO), 374 (14%) junior officers, 283 (11%) mid officers, and 151 (6%) senior or higher officers.

Of the participants, 22% ($N=574$) indicated that they had previously received mental health care. This measure will be referred to as 'past behaviour' as it indicates that the individual has previously engaged in the behaviour of interest. Finally, 58% ($N=1514$) of the participants had previously been deployed.

Table 1. Demographic data of NZDF study participants.

<i>Status</i>	<i>N</i>	<i>Age</i> (<i>Median</i> <i>Group</i>)	<i>Male</i> (%)	<i>Female</i> (%)	<i>Other</i> (%)	<i>Past</i> <i>behaviour</i> (%)	<i>Previous</i> <i>deploym</i> <i>ent</i> (%)
Navy	620 (24%)	30-39	463 (18%)	154 (6%)	2 (<1%)	163 (6%)	359 (14%)
Airforce	1023 (39%)	30-39	773 (30%)	179 (7%)	1 (<1%)	201 (8%)	498 (19%)
Army	957 (37%)	30-39	819 (32%)	193 (8%)	1 (<1%)	204 (8%)	641 (25%)
Total	2600 (99%)	30-39	2055 (80%)	526 (20%)	4 (<1%)	568 (22%)	1498 (58%)

Note: Due to rounding and missing responses not all percentages will add to 100. % are of total sample population inclusive of missing data.

Procedure

The study was part of a larger NZDF Health and Wellbeing Survey. The overarching purpose of the larger survey was “to get a picture of the current health and well-being of our people so that we may better understand and identify any areas of need” (*see* Appendix D). As the current study’s research aimed to better understand help seeking for mental health problems, to inform future endeavours in increasing help seeking in the NZDF, it was seen as both suitable and practical to combine the research questions into the larger survey. All NZDF personnel were invited to take part in the online survey, via email or paper copy (*see* Appendix C). Email was the primary method used, with paper copy for those with limited internet access due to deployment or operational duties. Data that was collected within the study time frame from October to November 2016 was used in the analysis.

The Survey

The first page of the survey contained an information sheet covering the aim of the survey, what the questions would cover, that it is anonymous, that data would be used for research, that data is stored securely, and finally how to fill in the questions (*see* Appendix D). The following page of the survey was the final page prior to the questions starting and explained how the personal nature of the survey questions may elicit distress. This was accompanied by twelve contacts both within and externally to the NZDF which participants were recommended to use in the case of any distress or help needed (*see* Appendix D).

The survey questions used for this research (*see* Appendix E) were in sections labelled help seeking and demographics, with the exception of the distress measure which was included in the life experience and wellbeing section. The layout and order of the survey was based on the face value of the survey, so that participants could carry it out with ease and it flowed logically. After the survey there was a further information sheet explaining some of

the answers participants may have chosen and what they meant, along with more support information for anyone with potential mental health problems (*see* Appendix F).

Measures

Intentions to seek help.

The intentions to seek help measure was designed according to Azjen's (2002a) Theory of Planned Behaviour guidelines and is intended to capture personnel's intentions to carry out the behaviour of interest. The question "how likely is it you would seek help if you had a mental health problem in the near future", was used, followed by a seven point likert scale response option from (1) very unlikely to (7) very likely. This measure aims to capture intentions of the specific behaviour of seeking help in the near future and does not ask participants to estimate distant intentions. Higher scores relate to greater intentions to seek help if it is needed in the near future.

Attitude towards help seeking.

Attitudes towards seeking help for mental health problems were measured in line with Azjens (2002a) guidelines for constructing a Theory of Planned Behaviour questionnaire. The statement, "Seeking help for mental health problems in the future would be", was followed by opposing anchors to respond to on a 7 point likert scale. These opposing anchors were either behavioural beliefs, to capture the expected experience of carry out the behaviour, for example from (1) "undesirable", to (7) desirable, or outcome evaluations, to capture the attitude of expected out comes, for example from (1) "unsuccessful", to (7) "successful". There were a total of 5 sets of anchors for this measure. The Cronbach's alpha coefficient for the scale was .942.

Subjective norms.

Subjective norms measures were also formed using Ajzen's (2002a) guidelines. This measure is made up of three questions. The first looked at how an individual perceives others would view them for seeking help, and uses the statement, "If I had a mental health problem most people who are important to me would", with a 7 point likert scale response from (1) "disapprove of me seeking help", to (7) "approve of me seeking help". The next statement is interested in the normative behaviour of close referents and states, "Most people who are important to me", with a 7 point likert scale response from (1) "Would not seek help if they had a mental health problem", to (7) "Would seek help if they had a mental health problem". The final statement for this measure looks at how important social referents opinions are to the individual, and may impact how much the previous two factors influence help seeking behaviour. It states, "With regards to seeking help for mental health problems, I do what people important to me think I should", and again is responded to on a 7 point likert scale from (1) "not at all", to (7) "very much". Each of these questions is designed to encompass an underlying belief or background factor. The Cronbach's alpha coefficient for the scale was .615.

Perceived behavioural control.

Once more the perceived behavioural control measure was also based on Ajzen's (2002a) guidelines, using three statements responded to on 7 point likert scales with opposing anchors. For example, "Whether or not I seek help for a mental health problem is up to me", with responses from (1) "strongly disagree", to (7) "strongly agree". The questions for this measure encompassed whether the individual feels responsible to seek help, how possible it would be to seek help, and how much control they feel they have over seeking help. The

purpose of this measure is to account for non-volitional factors that are outside of individual's control. The Cronbach's alpha coefficient for the scale was .509.

Stigma as an attitudinal barrier to care.

Perceived stigma was measured using the Perceived Stigma and Barriers to Care for Psychological Problems – Stigma Subscale (PSBCPP-SS) developed by Britt (2000), Britt et al. (2008), and Hoge et al. (2004). The scale looks at potential factors influencing military personnel to avoid seeking help. These factors are responded to only a five point likert scale as to how much the participants feel that they contribute to avoiding help seeking behaviour for mental health problems. Examples of these factors are, "It would be too embarrassing", and "My unit leadership / manager might treat me differently". They could respond from (1) "strongly disagree", (2) "disagree", (3) "neither agree nor disagree", (4) "agree", to (5) "strongly agree". The Cronbach's alpha coefficient for the scale was .902.

Structural barriers to care.

Structural barriers were also measured using the Perceived Stigma and Barriers to Care for Psychological Problems – Stigma Subscale (PSBCPP-SS) as above (Britt, 2000; Britt et al., 2008; Hoge et al., 2004). The same format of five point likert scale with the same anchors was used. Examples of the structural barrier factors are "I don't know where to get help", and "There would be difficulty getting an appointment". The Cronbach's alpha coefficient for the scale was .768.

Rank.

Ranks were grouped into five groups, (1) Pte-Cpl/Ord-LH/LAC-Cpl (Junior NCO), (2) Sgt-WO/PO-WO/Sgt-WO (Senior NCO), (3) Ocdt-Capt/Mid-LT/PO-FLTLT (Junior

Officer), (4) Maj/LTCDR/Sqnlr (Mid ranked Officer), and (5) LtCol/CDR/WG CDR and above (Senior and Executive Officers) (*see* Appendix G). These groups were formed based on leadership level equivalence across the three forces, starting at group (1) being the lowest ranks, through to group (5) being the most superior ranks within the NZDF. The majority of the literature discussed previously in relation to rank was in regards to leadership, therefore those in the more junior groups will likely have more superiors, whereas the senior groups will have fewer superiors and more personnel to be in command of. Those who respond “not applicable” due to being an ununiformed civilian will be excluded from all.

Distress.

Wellbeing was measured using items from the Kessler Psychological Distress Scale (K10), which reflects an individual’s general wellbeing (Kessler, & Mroczek, 1994). The section is opened with the explanatory statement “The following questions ask about how you have been feeling during the last month (4 weeks). Please read each question carefully and then indicate the response that best describes how you have been feeling.” and within the section participants responded to ten questions, on a four point likert scale. For example, “How often did you feel that everything was an effort?”, and “How often did you feel hopeless?” The likert scale was anchored from (1) “none of the time”, (2) “a little of the time”, (3) “some of the time”, (4) “most of the time”, to (5) “all if the time”. A four-week time frame is standard for this scale and is appropriate to this study, as some measures change over short periods of time so this allowed for comparison of relationships between measures within a short time frame. The K10 has a specified cut-off value of 18 where the likelihood of mental health problems high. The current study only requires group level differences, therefore rather than using the cut-off value, scores will be grouped into low distress (scores 15 and under), moderate (scores of 16 to 20), and high (21 and above).

Deployment history.

Deployment history data was collected using the question, “Have you ever been deployed on either an operational mission that would be qualifying service for the Operational Service Medal or other overseas activities (excluding courses or permanent established postings)?”, with “yes” or “no” response options. The wording of the question is based on the NZDF definition of deployment, and aims to clarify that training courses and being permanently established overseas are not included.

Age and gender.

Measures for age and gender groups were from demographic questions. For example, gender was answered with a tick in one of three boxes responding to, “What is your gender?” with “Male”, “Female”, or “Other”. Age was measured with the question, “What is your age?” with tick box responses to the group the participants age fell within. The spans of ages in each group were smaller for the younger age groups to reflect greater numbers of younger personnel in the NZDF. Selections were, “Less than 20 years”, “20-24 years”, “25-29 years”, “30-39 years”, “40-49 years”, “50-59 years”, and “60 years and over”.

Past behaviour.

Past help seeking behaviour was measured using two ‘yes’ or ‘no’ response questions. The first of which was, “Has there been a time in the last twelve months you felt you needed help for mental health problems?” The follow up to this was “If yes, did you get the help you needed?” A ‘yes’ reply to the second question indicates that the individual has received help for mental health problems in the past 12 months. A short time frame was chosen in line with the literature which found repetitive behaviour may be due to habitual responses, and

therefore by measuring more recent past behaviour, it is more likely to be in line with the future help seeking behaviour of interest (Conner & Armitage, 1998).

Statistical Analysis

IBM SPSS version 23 (IBM Corp, 2015) was used to carry out the statistical analysis. See 'Results' section for specific analysis carried out and the associated results.

CHAPTER THREE

Results

Descriptive statistics, internal consistency estimates and Pearson's correlation coefficients are presented in Table 2 for the predictors and the outcome intentions. Structural barriers are below the midpoint of the five-point scale, while stigma barriers are slightly above the midpoint, suggesting structural barriers are less salient in the sample than stigma barriers. Attitudes, subjective norms, perceived behavioural control and intentions are all above the midpoint of the seven-point scale. This shows on average a positive trend in the Theory of Planned Behaviour predictors and intentions of help seeking. Loewenthal (2004) states that a Cronbach's coefficient alpha of .7 or higher is satisfactory, while .6 or higher is acceptable, however below .6 is considered poor internal consistency. All scales had Cronbach's coefficient alphas over .6, except perceived behavioural control with a Cronbach's alpha of .51 (Table 2). Supporting the theorised relationships between the antecedents and the Theory of Planned behaviour predictors of intentions, stigma barriers ($M=2.55$, $SD=1.03$) were significantly negatively related to attitudes $r(2608)=-.45, p<.01$, and structural barriers ($M=1.85$, $SD=.70$) were significantly negatively related to perceived behavioural control $r(2610)=-.31, p<.01$.

All measures were assessed for outliers and none were detected. Skewness and kurtosis were assessed for all predictors and the outcome intentions. As recommended by Kline (2005) any skewness values ± 3 and kurtosis values ± 8 do not breach skewness and kurtosis assumptions for a large sample. No values exceeded these levels and a visual inspection of their plots showed no major skewness or kurtosis violations, therefore normality assumptions were met (*see Appendix H*).

Table 2: Descriptive statistics and correlations among variables.

<i>Variable</i>	<i>M</i>	<i>SD</i>	<i>N</i>	<i>Structural Barriers</i>	<i>Stigma Barriers</i>	<i>Attitudes</i>	<i>Subjective Norms</i>	<i>PB Control</i>
Structural barriers	1.85	0.70	2612	<i>.77</i>				
Stigma barriers	2.55	1.03	2613	.46**	<i>.90</i>			
Attitudes	5.34	1.28	2610	-.19**	-.45**	<i>.94</i>		
Subjective norms	5.44	1.00	2621	-.20**	-.38**	.52**	<i>.62</i>	
PB control	5.93	1.02	2620	-.31**	-.39**	.54**	.49**	<i>.51</i>
Intentions	4.37	2.01	2625	-.12**	-.26**	.47**	.34**	.41**

** Correlation is significant at the 0.01 level (2-tailed). Internal consistency estimates (Cronbach's alpha) are italicised and plotted on the diagonal.

Table 3 presents the means, standard deviations of the means, standard errors of the means, and number of responses for each of the questions making up the predictor measures. The greatest differences were seen between the item, "It would stop me from being deployed", which was the greatest stigma barrier ($M=3$, $SD=1.43$), and "I don't trust mental health professionals", which was the lowest stigma barrier ($M=1.93$, $SD=1.09$). Additionally, on the subjective norms scale the items showing that they thought people important to them would want them to seek help was greater than ($M=6.33$, $SD=.98$), their perception that those people important to them would seek help themselves ($M=5.21$, $SD=1.38$).

Table 3: Mean responses to items making up predictors of help seeking intentions.

<i>Measures</i>	<i>N</i>	<i>M</i>	<i>SD</i>	<i>SE</i>
Structural Barriers (5pt scale)				
<i>I don't know where to get help</i>	2612	1.75	1.05	.02
<i>There would be difficulty getting time off work</i>	2610	1.95	1.14	.02
<i>It would be difficult to get an appointment</i>	2612	1.89	1.06	.02
Stigma Barriers (5pt scale)				
<i>My unit leadership/manager might treat me differently</i>	2611	2.46	1.36	.03
<i>I would be seen as weak</i>	2613	2.49	1.33	.03
<i>People might have less confidence in me</i>	2612	2.83	1.38	.03
<i>It would stop me from being deployed</i>	2608	3.00	1.43	.03
<i>I don't trust mental health professionals</i>	2612	1.93	1.09	.02
<i>It would harm my career</i>	2613	2.91	1.39	.03
<i>My visit would not remain confidential</i>	2606	2.41	1.36	.03
<i>It would be too embarrassing</i>	2611	2.41	1.27	.03
Attitudes (7pt scale)				
<i>Seeking help would be: harmful to beneficial</i>	2609	5.56	1.35	.03
<i>Seeking help would be: negative to positive</i>	2606	5.51	1.36	.03
<i>Seeking help would be: undesirable to</i>	2606	5.19	1.54	.03
<i>Seeking help would be: unsuccessful to</i>	2605	5.23	1.36	.03
<i>Seeking help would be: weak to strong</i>	2596	5.19	1.47	.03
Subjective norms (7pt scale)				
<i>People who are important to me would: disapprove to approve me seeking help</i>	2618	6.33	0.98	.02
<i>People who are important to me: would not seek to would seek help</i>	2617	5.21	1.38	.03
<i>I do what people think I should: not at all to very much</i>	2608	4.78	1.55	.03
Perceived behavioural control (7pt scale)				
<i>Seeking help is up to me: strongly disagree to</i>	2591	5.89	1.33	.03
<i>To seek help would be: impossible to possible</i>	2608	5.80	1.29	.03
<i>How much control do you have to seek help: no to complete control.</i>	2614	6.07	1.10	.02

Note *N* is total responses to the item. Measure questions are shortened, see Appendix E for full questions.

The Traditional Model Compared to the Theory of Planned Behaviour Model

To test hypothesis one part one and two, two linear regressions using Bonferroni adjustments (Hochberg, 1988) were carried out with the predictors of both models.

Hypothesis one, part one, hypothesised that attitudes, subjective norms, and perceived behavioural control would significantly predict help seeking intentions for mental health problems in the near future (Table 4, Model B). The model significantly predicted intentions to seek help, $F(3,2622) = 303.71, p < .001$. The model accounted for 25.8% of variance, with an error estimate of 1.73. All three predictors made significant contributions to predicting variance in help seeking intentions, with attitudes accounting for the most with a Beta of .32. These findings support hypothesis one part one.

Hypothesis one, part two, hypothesised that attitudes, subjective norms, and perceived behavioural control (Model B) would account for greater variance explained in predicting help seeking intentions for mental health problems in the near future than structural barriers and the attitudinal barrier stigma (Model A). A linear regression found that the stigma and structural barriers model significantly predicted intentions to seek help, $F(2,2623) = 95.48, p < .001$. The model accounted for 6.8% of variance in help seeking intentions, with an error estimate of 1.94. Structural barriers did not significantly contribute to predicting unique variance in help seeking intentions, whereas stigma did with a Beta of -.261. Model B with attitudes, subjective norms, and perceived behavioural control accounted for 25.8% ($R^2 = .258$) of variance in help seeking intentions. Model A accounted for less variance than Model B, with stigma and structural barriers accounting for 6.8% ($R^2 = .068$), which supports hypothesis one, part two.

Table 4: Models of predictors of intentions to seek help.

<i>Variable</i>	<i>B</i>	<i>SE B</i>	β	<i>Sig.</i>	<i>R²</i>
Model A: Stigma and structural barriers model					.07
Structural barriers	.00	.05	.00	.99	
Stigma barriers	-.51	.04	-.26	.00**	
Model B: The Theory of Planned Behaviour model					
Attitudes	.50	.03	.32	.00**	.26
Subjective norms	.15	.04	.07	.00**	
PB control	.41	.04	.21	.00**	
Model C: Combined predictors of intentions model					.26
Structural barriers	.07	.04	.03	.11	
Stigma barriers	-.06	.04	-.03	.18	
Attitudes	.49	.04	.31	.00**	
Subjective norms	.14	.04	.07	.00**	
PB control	.41	.04	.21	.00**	

** Contribution of variance to help seeking intentions is significant at the 0.01 level.

Model C (Table 4) showed that when all predictors of intentions of help seeking are analysed using a linear regression only attitudes, subjective norms, and perceived behavioural control make a significant contribution at the $p < .05$ level. Two stage hierarchical multiple regressions using Bonferroni adjustments (Hochberg, 1988) were carried out for each of the three predictors, with intentions as the dependent variable. Stage one of each two stage hierarchical regression included the four other predictors, whilst stage two included the predictor of interest, therefore controlling for all other predictors in each instance (*see* Table 5).

Table 5: Summary of Hierarchical Regression Analyses for predictors of intentions to seek help for mental health problems.

<i>Variable</i>	β	<i>t</i>	<i>Sr</i> ²	<i>R</i>	<i>R</i> ²	ΔR^2
<i>Attitudes Hierarchical Regression</i>						
Stage 1				.45	.20	.20
Structural Barriers	.06	2.88**	.00			
Stigma Barriers	-.11	-5.08**	.01			
Subjective Norms	.15	7.51**	.02			
P B Control	.31	15.06**	.07			
Stage 2				.51	.26	.06
Structural Barriers	.03	1.62	.00			
Stigma Barriers	-.03	-1.34	.00			
Subjective Norms	.07	3.37**	.00			
P B Control	.21	9.74**	.03			
Attitudes	.31	14.09**	.06			
<i>Subjective Norms Hierarchical Regression</i>						
Stage 1				.51	.26	.26
Structural Barriers	.03	1.62	.00			
Stigma Barriers	-.04	-1.79	.00			
Attitudes	.33	15.71**	.07			
P B Control	.23	10.95**	.03			
Stage 2				.51	.26	.00
Structural Barriers	.03	1.62	.00			
Stigma Barriers	-.03	-1.34	.00			
Attitudes	.31	14.09**	.06			
P B Control	.21	9.74**	.03			
Subjective Norms	.07	3.37**	.00			
<i>Perceived Behavioural Control Hierarchical Regression</i>						
Stage 1				.48	.23	.23
Structural Barriers	-.00	-.14	.00			
Stigma Barriers	-.04	-1.92	.00			
Attitudes	.39	18.31**	.10			
Subjective Norms	.12	5.96**	.01			
Stage 2				.51	.26	.03
Structural Barriers	.03	1.62	.00			
Stigma Barriers	-.03	-1.34	.00			
Attitudes	.31	14.09**	.06			
Subjective Norms	.07	3.37**	.00			
P B Controls	.21	9.74**	.03			

Note: $N = 2626$, * significant at the $p < .05$ level, ** significant at the $p < .01$ level.

The first hierarchical regression examined attitudes as a predictor of intentions revealed that at stage one structural barriers, stigma barriers, subjective norms, and perceived behavioural control contributed significantly to the regression model, $F(4,2621)=166.49$, $p<.01$ and accounted for 20.3% of the variance in intentions to seek help for mental health problems. Introducing attitudes to the model in stage two explained an additional 5.6% of unique variance in intentions to seek help and this R^2 was significant, $F(5,2620)=182.95$, $p<.01$.

The next hierarchical regression examined subjective norms as a predictor of intentions revealed that at stage one structural barriers, stigma barriers, attitude and perceived behavioural control contributed significantly to the regression model, $F(4,2621)=224.96$, $p<.01$ and accounted for 25.6% of the variance in intentions to seek help for mental health problems. Introducing subjective norms to the model in stage two explained an additional .3% of unique variance in intentions to seek help and this R^2 was significant, $F(5,2620)=182.95$, $p<.01$.

The final hierarchical regression examined perceived behavioural control as a predictor of intentions revealed that at stage one structural barriers, stigma barriers, attitudes and subjective norms contributed significantly to the regression model, $F(4,2621)=197.88$, $p<.01$ and accounted for 23.2% of the variance in intentions to seek help for mental health problems. Introducing perceived behavioural control to the model in stage two explained an additional 2.7% of unique variance in intentions to seek help and this R^2 was significant, $F(5,2620)=182.95$, $p<.01$.

When all five predictors were included in the regression model structural barriers and stigma barriers did not significantly contribute to the prediction of help seeking intentions. The most salient predictor of intentions was attitudes which uniquely explained 5.6% of variance in intentions to seek help for mental health problems in the near future.

Meditation of Structural and Stigma Barriers by the Theory of Planned Behaviour Predictors

The Theory of Planned Behaviour states that attitudes, subjective norms and perceived behavioural control mediate the relationship between all other variables and the outcome intentions. To further test this models application to help seeking hypothesis two parts one and two examine this assumption by hypothesizing that: attitudes would mediate the relationship between stigma barriers and help seeking intentions for mental health problems in the near future; and perceived behavioural control would mediate the relationship between structural barriers and help seeking intentions for mental health problems in the near future.

Linear regression was carried out to analyse the mediation effects of hypothesis two, part one and two, as seen in figures 4 and 5. Sobel's test was carried out to assess the significance of both fully and partially mediated models (Sobel, 1982; Sobel, 1986).

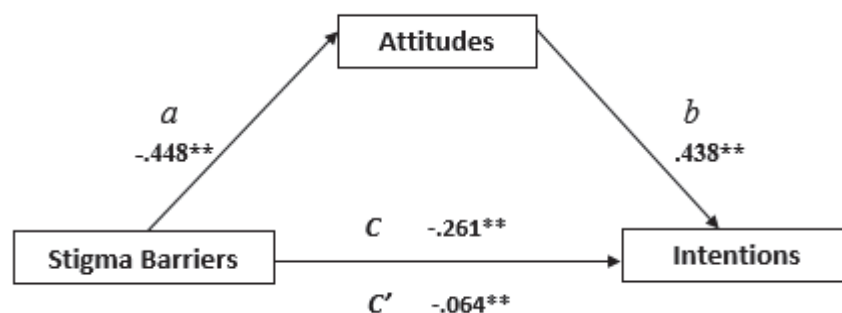


Figure 4: Direct and indirect paths of stigma barriers with intentions to seek help for mental health problems, mediated by attitudes. * standardised beta coefficients significant at the $p < .05$ level.

Path c showed a significant direct relationship between stigma barriers and intentions, $F(1,2624)=191.04$, $p < .01$, $R^2=.068$. Stigma barriers were negatively related to intentions, $b = -.261$, $t(2624) = -13.82$, $p < .01$. Path a showed a significant relationship between stigma barriers and attitudes, $F(1,2624)=657.64$, $p < .01$, $R^2=.200$. Stigma barriers were negatively related to attitudes, $b = -.448$, $t(2624) = -25.64$, $p < .01$. The model for path b and c' showed a

significant relationship with intentions, $F(2,2623)=373.13$, $p<.01$, $R^2=.221$. Attitudes were positively related to intentions, $b=.438$, $t(2623)=22.75$, $p<.01$, and path c' showed a significant negative relationship between stigma barriers and intentions, $b=-.06$, $t(2623)=-3.34$, $p=.001$, when path b is accounted for. A Sobel's test was carried out to test the significance of the indirect effect or difference between c and c' . Partial mediation was found as the indirect effect -0.196 (standardized) was significant, $Z=-12.05$, $p<.01$, and accounted for 75.4% of the direct effect. Hypothesis two, part one, was only partially supported as partial mediation rather than full mediation was found.

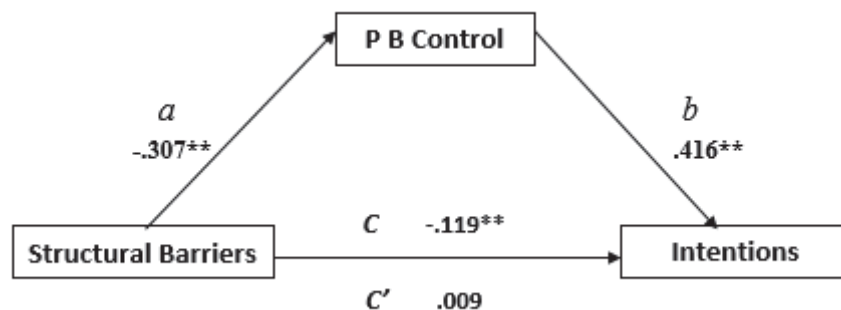


Figure 5: Direct and indirect paths of structural barriers with intentions to seek help for mental health problems, mediated by perceived behavioural control. ** standardised beta coefficients significant at the $p<.01$ level.

Path c showed a significant direct relationship between structural barriers and intentions, $F(1,2624)=37.83$, $p<.01$, $R^2=.014$. Structural barriers were negatively related to intentions, $b=-.119$, $t(2624)=-6.15$, $p<.01$. Path a showed a significant relationship between structural barriers and perceived behavioural control, $F(1,2624)=273.91$, $p<.01$, $R^2=.095$. Structural barriers were negatively related to perceived behavioural control, $b=-.31$, $t(2624)=-16.55$, $p<.01$. The model for path b and c' showed a significant relationship with intentions, $F(2,2623)=270.05$, $p<.01$, $R^2=.171$. Perceived behavioural control was positively related to intentions, $b=.42$, $t(2623)=22.25$, $p<.01$, and path c' showed a nonsignificant relationship between structural barriers and intentions, $b=.01$, $t(2623)=-.46$, $p=.65$, when path b is

accounted for. Full mediation was shown supporting hypothesis two, part two, as c was significant at the $p < .05$ level, and c' was not significant at the $p < .05$ level. Sobel's test was significant with an indirect effect of -0.13 (standardized), $Z = -13.32$, $p < .01$.

Group Level Differences in Intentions to Seek Help

An analysis of covariance using Bonferroni adjustments (Hochberg, 1988) was carried out to analyse the hypothesised relationship of hypothesis three, part one, that those with higher rank would have greater intentions to seek help for future mental health problems in the near future compared to those of lower rank. Controlling for age, there was a significant effect of rank on intentions to seek help, $F(4,2477) = 11.79$, $p < .01$. Figure 6 shows an overall trend for lower ranks to be associated with lower intentions to seek help than higher ranks. Table 6 shows that Junior NCO's had significantly lower intentions ($M = 4.09$, $SD = 1.98$) to seek help than all other ranks, and Senior NCO's also had lower help seeking intentions ($M = 4.38$, $SD = 2.08$) than Senior Officers ($M = 4.92$, $SD = 2.01$).

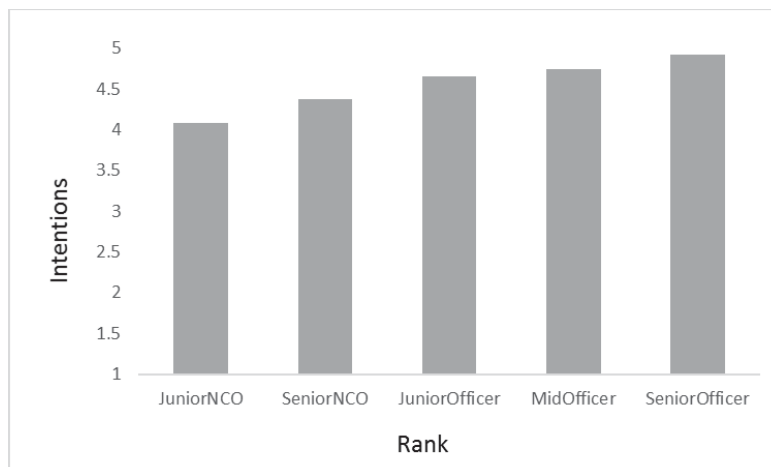


Figure 6: The estimated marginal means of intentions for rank groups Junior NCO, Senior NCO, Juniors Officers, Mid Officers and Senior Officers.

A one-way analysis of covariance was carried out to analyse the effect of rank on intentions to seek help, while controlling for age.

Table 6: Multiple comparison between rank groups mean intentions to seek help for mental health problems.

<i>Rank</i>	<i>N</i>	<i>M</i>	<i>SD</i>	<i>SE</i>	<i>Junior NCO</i>	<i>Senior NCO</i>	<i>Junior Officer</i>	<i>Mid Officer</i>
Junior NCO	883	4.09	1.98	.07				
Senior NCO	792	4.38	2.08	.07	.30*			
Junior Officer	374	4.66	1.85	.10	.57**	.27		
Mid Officer	283	4.75	1.93	.12	.66**	.37	.09	
Senior Officer	151	4.92	2.01	.16	.83**	.54*	.27	.17

The error term is Mean Square(Error) = 3.96. * The mean difference is significant at the .05 level. ** The mean difference is significant at the .01 level.

A univariate general linear model using Bonferroni adjustments (Hochberg, 1988) was carried out to analyse the hypothesised relationship of hypothesis three, part two, that those with high distress levels would have lower intentions to seek help for mental health problems in the near future compared to those with low distress levels. Distress was measured using the Kessler Ten scale and from that scores were grouped into; scores of 15 and under being low distress, 16 to 20 moderate distress, and 21 and over high distress (Andrews & Slade, 2001). There was a significant main effect for distress level, $F(2, 2622) = 9.06, p < .001$. Figure 7 shows an overall trend for higher distress to be associated with lower intentions to seek help than lower distress levels. Table 6 shows that the low distress group had significantly higher intentions ($M=4.52, SD=2.07$) to seek help than the moderate ($M=4.30, SD=1.98$) and high ($M=4.12, SD=1.90$) distress groups. This supports hypothesis three, part two, showing that high distress levels are linked to lower intentions to seek help for future mental health problems compared to low distress levels.

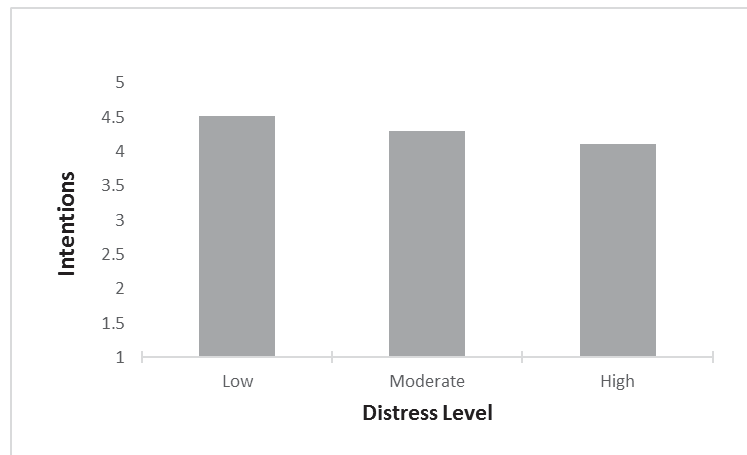


Figure 7: The estimated marginal means of intentions for distress level groups low, moderate, and high.

Table 7: Multiple comparisons between distress groups mean intentions to seek help for mental health problems.

<i>Distress</i>	<i>M</i>	<i>SD</i>	<i>SE</i>	<i>Low</i>	<i>Moderate</i>
Low	4.52	2.07	.06		
Moderate	4.30	1.98	.08	-.23*	
High	4.12	1.90	.08	-.41**	-.18

The error term is Mean Square(Error) = 3.958. *The mean difference is significant at the .05 level. ** The mean difference is significant at the .01 level.

A two tailed t test was carried out to analyse the hypothesised relationship of hypothesis three, part three, that those with past help seeking behaviour would have greater intentions to seek help for future mental health problems in the near future compared to those without past help seeking behaviour. There was a significant effect for past help seeking behaviour, $t(2620) = 13.56, p < .001$, with those who have sought help in the past reporting higher intentions to seek help in the future ($M=5.34, SD=1.76$) than those who have not sought help ($M=4.10, SD=1.99$). This finding supports hypothesis three, part three.

Table 8: Comparison between past help seeking behaviour groups mean intentions to seek help for mental health problems.

<i>Past Behaviour</i>	<i>N</i>	<i>M</i>	<i>SD</i>	<i>SE</i>
No	2048	4.10	1.99	.04
Yes	574	5.34	1.76	.07

A two tailed t test was carried out to analyse the hypothesised relationship of hypothesis three, part four, that those who have deployment history would have greater intentions to seek help for mental health problems in the near future compared to those who have never been deployed. There was a significant effect for deployment history, $t(2621) = 2.39, p=.034$, with those who have been deployed in the past reporting higher intentions to seek help in the future ($M=4.45, SD=2.02$) than those who have not been deployed ($M=4.26, SD=2.00$). This finding supports hypothesis three, part four.

Table 9: Comparison between deployment history groups mean intentions to seek help for mental health problems.

<i>Deployment</i>	<i>N</i>	<i>M</i>	<i>SD</i>	<i>SE</i>
No	1110	4.26	2.00	.06
Yes	1513	4.45	2.02	.05

An analysis of covariance using Bonferroni adjustments (Hochberg, 1988) was carried out to analyse the hypothesised relationship of hypothesis three, part five, that younger personnel will have greater intentions to seek help for mental health problems in the near future compared to older personnel. Controlling for rank, there was a significant main effect for age, $F(6, 2600) = 6.31, p < .001$. Table 10 shows that those under the age of 20 were significantly had significantly lower intentions ($M=3.61, SD=2.05$) than those in the age groups of 25-29 ($M=4.31, SD=1.92$), 30-39 ($M=4.56, SD=1.94$), 40-49 ($M=4.57, SD=2.03$),

and 50-59 years ($M=4.42$, $SD=2.15$). Additionally, those in the 20-24 age bracket were significantly less likely to seek help ($M=4.06$, $SD=1.93$) than those in the age groups 30-39 ($M=4.56$, $SD=1.94$) and 40-49 ($M=4.57$, $SD=2.03$). These results do not support hypothesis three part five.

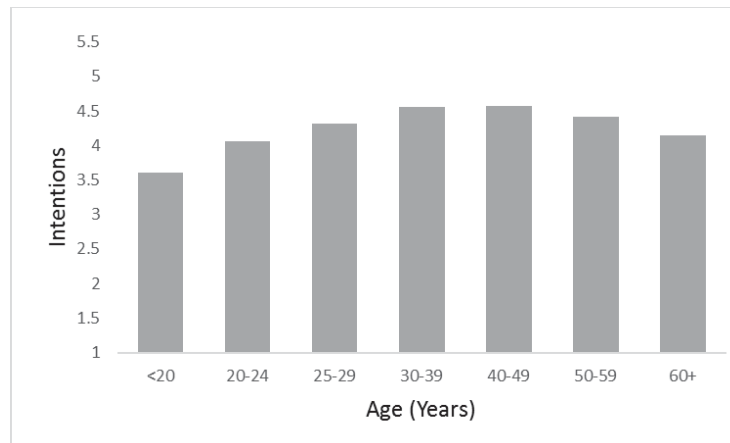


Figure10: The estimated marginal means of intentions for age groups under 20 years, 20-24 years, 25-29 years, 30-39 years, 40-49 years, 50-59 years, and over 60 years.

Table 10: Multiple comparisons between age groups mean intentions to seek help for mental health problems.

Age	N	M	SD	SE	<20	20-24	25-29	30-39	40-49	50-59
<20	94	3.61	2.05	.21						
20-24	452	4.06	1.93	.09	.45					
25-29	454	4.31	1.92	.09	.70*	.25				
30-39	582	4.56	1.94	.08	.96**	.51*	.26			
40-49	620	4.57	2.03	.08	.96**	.51*	.26	.01		
50-59	359	4.42	2.15	.11	.81*	.37	.11	-.14	-.15	
60+	47	4.15	2.40	.29	.54	.09	-.16	-.41	-.42	-.27

The error term is Mean Square(Error) = 3.958. *The mean difference is significant at the .05 level. ** The mean difference is significant at the .01 level.

A univariate general linear model using Bonferroni adjustments (Hochberg, 1988) was carried out to analyse the hypothesised relationship of hypothesis three, part six, that females will have greater intentions to seek help for mental health problems in the near future

compared to males. There was a significant main effect for gender, $F(2, 2607) = 30.2$, $p=.001$. Table 11 shows that females had significantly higher intentions to seek help ($M=4.67$, $SD=1.95$) than males ($M=4.30$, $SD=2.02$). There was no statistically significant difference between those who identified as other ($M=3.80$, $SD=2.78$) with male and female, however this group had the lowest intentions. This is likely due to a small sample size ($N=5$) in the other group.

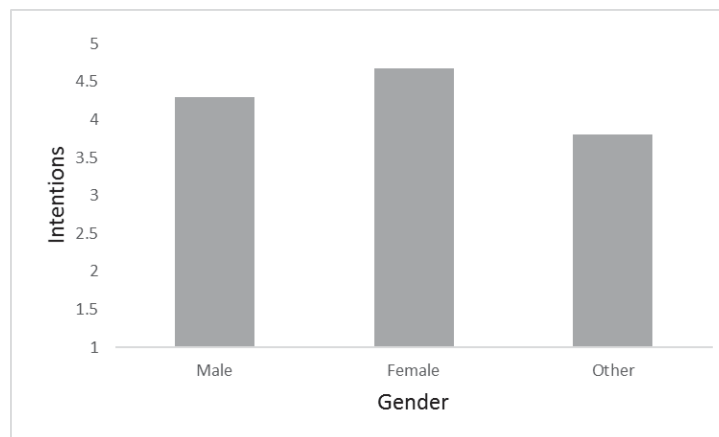


Figure 11: The estimated marginal means of intentions for gender groups male, female and other.

Table 11: Multiple comparisons between gender groups mean intentions to seek help for mental health problems.

<i>Gender</i>	<i>N</i>	<i>M</i>	<i>SD</i>	<i>SE</i>	<i>Male</i>	<i>Female</i>
Male	2078	4.30	2.02	.04		
Female	528	4.67	1.95	.09	-.37*	
Other	5	3.80	2.78	.90	-.50	-.87

The error term is Mean Square(Error) = 3.958. *The mean difference is significant at the .05 level. ** The mean difference is significant at the .01 level.

CHAPTER FOUR

Discussion

The present study examined predictors of mental health help seeking intentions in the New Zealand Defence Force and group level differences in those intentions. A traditional military help seeking model which utilises the Perceived Barriers to Care for Psychological Problems Stigma Scale (Britt et al., 2008) was compared to the Theory of Planned Behaviour model (Ajzen, 1991). The findings illustrate how the Theory of Planned Behaviour can account for greater overall variance in help seeking intentions compared to the traditional model, and that it has the capacity to partially include the predictors of the traditional model as antecedents of the TPB predictors (Ajzen, 1991; Ajzen, 2011). Furthermore, significant group level differences were found in NZDF personnel's intentions to seek help in the case of future mental health problems. These differences show how the beliefs and attitudes that underlie the predictors of the help seeking models can be influenced at a group level, and should be considered when implementing practical change initiatives.

NZDF Help Seeking Intentions

The aim of the current study was to better understand help seeking for mental health problems in the NZDF by assessing the utility of behavioural models and assessing how groups differ in their help seeking intentions. Firstly, it is important to consider the current overall intentions to seek help in the NZDF, and to evaluate the need for initiatives that support personnel to seek help. Of those surveyed, the mean response to "How likely is it you would seek help if you had a mental health problem in the near future?" was 4.37 ($SD=2.01$) on a seven point likert scale from (1) very unlikely to (7) very likely. This indicates that on average NZDF personnel are only slightly above neutral in their intentions to seek help, which shows a real need for attention in this area. Additionally, the standard deviation

($SD=2.01$) is substantial, signifying that the range of responses was fairly spread out. This shows that some NZDF personnel have positive intentions to seek help if the need arises, whilst others have rather negative intentions and would be at risk if problems arose. Consequently, it is a very valuable area of focus to improve mental health outcomes for all NZDF personnel.

The Theory of Planned Behaviour

The first hypotheses examined how well the Theory of Planned Behaviour's three core factors - attitudes, subjective norms, and perceived behavioural control, predicted NZDF personnel's intentions to seek help for mental health problems in the near future (Ajzen, 1991; Ajzen, 2011). All three of the core predicting factors made unique contributions to the variance in help seeking intentions, with attitudes and perceived behavioural control accounting for much greater variance than subjective norms. The model accounted for approximately a quarter of the variance in intentions, which is adequate for a behavioural model (Armitage & Conner, 2001). However, there were issues with the reliability of the perceived behavioural control scale, with the Cronbach's alpha falling below .6, at .51 indicating poor internal consistency (Loewenthal, 2004). The scales for this study were developed in line with Azjen's (2002a) guidelines for the Theory of Planned Behaviour. Poor reliability suggests that future use of the model in this particular context would benefit from a revision of the perceived behavioural control scale. This would ensure better reliability, whilst maintaining the integrity of the underlying beliefs of the model. As the use of the Theory of Planned Behaviour in military settings is limited, the low Cronbach's alpha for perceived behavioural control is considered to be noteworthy when assessing results, but is not low enough to impact the integrity of the greater study at this somewhat investigative stage in the research (Loewenthal, 2004). Future utilisation of the Theory of Planned

Behaviour in the military help seeking domain would benefit from giving more attention to the development of a more reliable perceived behavioural control scale.

Subjective norms accounted for less than one percent of unique variance in intentions and although this was statistically significant, it was considerably less than attitudes and perceived control. This finding is in line with past research that regularly finds subjective norms to predict the least variance of the three factors in Western cultures, but a greater amount in some Asian cultures. Western cultures are typically individualistic with greater self-reliance and competition but less concern for in-groups (Triandis, Bontempo, Villareal, Asai & Lucca, 1988). Asian cultures are classically collectivist, with community focused outcomes, less competition and strong in-group ties. Due to the importance of community in collectivist cultures the influence of significant others is likely to be much more important. This highlights the importance of context when interpreting these results (Armitage & Conner, 2001; Godin & Kok, 1996; Mak & Davis, 2013). Consequently, this result indicates that NZDF personnel's attitudes and perceived control have a greater impact on their overall intentions to seek help, than subjective normative factors. Additional factors such as poor face validity may also be influencing the low variance explained by subjective norms. The survey questions are directed towards people who are 'important' to the personnel responding to the questions. This may lead respondents to think of their families and loved ones when responding, rather than their co-workers. As career barriers were found to be more problematic than other stigma barriers, other military personnel's opinions may be highly salient but respondents may not consider them "important" to them. Therefore, the subjective norms measure may not be capturing the important social norms felt from other military personnel. To increase the validity of subjective norms in future military research it would be valuable to frame some of the questions specifically towards military personnel. For example,

“Would the ‘military family’ approve or disprove of you seeking help for mental health problems?”.

An additional factor to consider is the way in which responses are analysed. The underlying beliefs of the subjective norms measure are normative beliefs of the individual’s significant others approval or disapproval of seeking help for mental health problems (Ajzen & Fishbein, 1975). These normative beliefs are combined with the individual’s motivation to comply or ignore others approval or disapproval. In this study the normative beliefs that others would approve of help seeking behaviour, and that they would also seek help themselves were aligned with high motivation to comply with these beliefs and positively related to greater intentions to seek help. On the opposite end of the scale negative normative beliefs were aligned with low motivation to comply and lower help seeking intentions. However, the way the measurement scale combines normative beliefs and motivation to comply with the beliefs could be problematic. Those that had positive normative beliefs, but low motivation to comply, or those that had negative normative beliefs and high motivation to comply, would reduce the reliability of the scale and the ability of the measurement scale to predict intentions. As the reliability of subjective norms was sufficient it is likely it has not severely affected the measure in explaining intentions to seek help for mental health in this study. Regardless, the actual variance in intentions to seek help that can be explained by subjective norms may have been somewhat weakened due to the scale and analysis method described (Loewenthal, 2004). To overcome this in future, the subjective norm measure would benefit from being analysed in a way that allows for the underlying normative belief’s salience to be scaled relative to the motivation to comply. Since the Cronbach’s alpha of subjective norms is sufficient in this study, it appears that the scale has not been greatly impacted by the potential for measurement error. Therefore, the finding that normative beliefs

do not contribute a great deal of predictive validity is likely indicative of the actual relationship between subjective norms and NZDF personnel's intentions to seek help.

Attitudes contributed the greatest unique variance in this model (6%), which indicates attitudes are the most salient predictor of help seeking in the NZDF using the Theory of Planned Behaviour. Attitudes are made up of behavioural beliefs and outcome evaluations (Ajzen, 1975). Behavioural beliefs link the help seeking behaviour to predicted outcomes, which contribute to either positive or negative outcome evaluations. Positive attitudes were positively related to higher intentions to seek help if necessary in the future, which indicates that if NZDF personnel have more positive predicted outcomes of seeking help, they are more likely to have greater intentions to seek help, and vice versa with negative predicted outcomes.

Although perceived behavioural control had reliability issues, it accounted for a significant amount of unique variance (3%) in help seeking intentions using the Theory of Planned Behaviour (Ajzen, 1991; Ajzen, 2011). Control beliefs underlie the perceived behavioural control measure and are altered depending on the anticipated obstacles and enablers to carrying out the help seeking behaviour (Ajzen & Fishbein, 1977). Control beliefs are high when there are greater perceived opportunities and resources, which are theorised to be reliant on past experiences. NZDF personnel in this study were significantly more likely to have greater help seeking intentions when they reported greater perceived control. Therefore, greater perceived resources and opportunities are linked to increased help seeking intentions in NZDF personnel. This translates practically as by increasing the resources and opportunities available for NZDF personnel it may be possible to increase perceived behavioural control and the associated positive help seeking outcomes.

Overall the Theory of Planned Behaviour accounted for a significant amount of variance in help seeking intentions. Although some areas where future improvements to

measurement were highlighted, they did not appear to greatly harm the integrity of the model. From a practical perspective attitudes and perceived behavioural control accounted for much more variance, therefore would be more salient in making positive changes to their underlying beliefs that impact help seeking outcomes. Subjective norms accounted for much less variance. This in itself can be practically useful, as a more collectivist approach to the culture the NZDF promotes may give a currently somewhat redundant factor more power to positively influence help seeking outcomes (Triandis et al., 1988).

Intention Behaviour Gap

The current study measured NZDF personnel's intentions to seek help if they had mental health problems in the near future as indicative of actual mental health help seeking behaviour. According to the Theory of Planned Behaviour, intentions capture motivational aspects of carrying out an actual behaviour (Ajzen, 1991; Ajzen, 2011). Correlations of the relationship between intention and behaviour have shown to be strong but can weaken over time (Sheeran & Orbell, 1998). Ajzen (1991) claims this is due to non-motivational factors that are out of the control of an individual, which is considered a lack of volitional control. These non-motivational factors have the ability to directly affect the actual behaviour over and above one's intentions, causing a gap between intentions and behaviour. When perceived control does not approximate true control over the behaviour there is a lack of volitional control. However, when perceived control is in line with true control this gap is limited. Therefore, the variance accounted for in intentions by perceived control may not be the same as the variance accounted for in the actual help seeking behaviour if there is a lack of volitional control, as found by Nagai (2015). To reduce the gap between intentions and actual behaviour, the current study assessed intentions in regards to the near future, so does not make any claims to explain long term changes in intentions and actual behaviour. The only

way to accurately measure the intention behaviour gap is by measuring actual behaviour following the research survey. As help seeking is not a high frequency behaviour it is not easily measured and was beyond the time frame of this research. However, a reasonable indication of this relationship can be attained by considering the link between personnel that have carried out the help seeking behaviour in the past and their intentions to engage in the behaviour in the future. Past help seeking behaviour was found to be positively associated with greater intentions to seek help in the near future. While carrying out the actual behaviour in the past is not directly comparable to carrying out the actual behaviour in the future, it does show a link between intentions and actual help seeking behaviour. This supports that our measurement of help seeking intentions would be correlated with actual help seeking, dependent on volitional control. Therefore, using intentions in the place of actual help seeking behaviour has shown to be an acceptable alternative, which further strengthens the efficacy of the Theory of Planned Behaviour model to explain military help seeking.

Comparison of the Models

To compare the Theory of Planned Behaviour model to the traditional stigma and structural barriers PSBCPP-SS model ('traditional model' *for ease of reading*) we next looked at how structural barriers and stigma as an attitudinal barrier predicted help seeking intentions (Ajzen, 1991; Ajzen, 2011; Britt et al., 2008). The traditional model accounted for 7% of total variance in intentions. Within the traditional model, greater levels of stigma and structural barriers were related to lower intentions to seek help for mental health problems in the near future. The measurement scales for both predictors showed satisfactory reliability (Loewenthal, 2004), but only stigma significantly contributed to the predictive validity of intentions to seek help. The individual items contributing to the structural barriers measure had lower means than all but one of the individual items contributing to the stigma measure.

This indicates that not only do stigma barriers predict help seeking intentions better than structural barriers, they are also more negative and therefore are more problematic to NZDF personnel's overall help seeking behaviour. The relationship found of greater stigma being associated with lower intentions to seek help for mental health problems is in line with help seeking in the general population (Clement et al., 2015). However, this is contradictory to some military help seeking findings (Brown et al., 2011; Elnitsky et al., 2013; Jones et al., 2013). The present study's findings of the relationship between structural and stigma barriers to care and intentions to seek help, varied from a number past studies (*see* Sharp et al., *for review*). Additionally, 19% less variance in help seeking intentions was accounted for when only structural and stigma barriers to care were considered, compared to the Theory of Planned Behaviour model. These contradictory findings and comparably poorer variance explained support the notion that the narrow focus of items measured may be causing discrepancies across studies, making the traditional model inferior to the TPB model.

Closer examination of the items measuring stigma within the current version of the PSBCPP-SS being used highlight questions around the constructs being measured (Britt et al., 2008). The most salient stigma item identified in the current study was "It would stop me from being deployed", as it had the greatest mean ($M=3.00$, $SD=1.43$). This is considered a stigma item, but perceived stigma in this instance is the negative attitudes and beliefs perceived to be held by oneself, others, and society towards help seeking behaviours (Clement et al., 2015; Corrigan & Penn, 1999;). The stigma item related to help seeking causing personnel to not be deployed may stem from stigma attitudes and beliefs regarding mental health but results in tangible outcomes effecting NZDF personnel's career. It could be argued that this is only a belief and not a reality, but if a person has mental health issues and the NZDF are aware of these problems they cannot be deployed for their own and others health and safety. Consequently, it does not fit well within its current use as an attitudinal

barrier, as it goes beyond just the beliefs and attitudes of stigma to tangible outcomes. It is also not a structural barrier that physically stands in the way of seeking help. Therefore, it may be valuable for further investigation in this area to consider this item as a career barrier. A second item that would also benefit from being recognised under the construct of career barriers is, “It would harm my career” as having mental health problems may delay promotions and other career opportunities, such as training if one requires treatment or medical leave. The items used to measure stigma across military studies often differ slightly from the original PSBCPP-SS model (Sharp et al., 2015). Therefore, future investigation into how items load onto different factors may be useful as more items are incorporated. Previous research has found that when barriers are considered as one construct they can differ in their relationship to predicted outcomes and their abilities to moderate variables dependent on the context (Britt et al., 2008; Gerend et al., 2013). This becomes crucial when considering barriers in relation to other predictive factors as will be discussed in relation to extending the TPB model below. Subsequently, the differentiation of these underlying measures are important in an applied setting, as barriers that have a greater cognitive and cultural focus such as stigma are likely to benefit from psycho education and culture change initiatives. In contrast career barriers which have tangible outcomes may require changes by the organisation to policies and education for all ranks. For example, that once personnel have recovered from mental health problems there are no negative implications for career progression. Capturing the specific constructs is important to both research and real world application.

Taking these findings into consideration this traditionally used model of help seeking which examines the attitudinal barrier stigma and structural barriers appears inferior to the TPB model in its ability to explain help seeking behaviour in the military. Structural barriers had limited impact on intentions and although stigma accounted for significant variance it

was still much less than the TPB model. This combined with the mixed results between past studies (Sharp et al., 2015) and the possibility of important barriers to help seeking constructs being overlooked, highlights crucial weaknesses in the model and promotes the importance of considering another behavioural model such as the TPB that may well be better suited.

The Extended Theory of Planned Behaviour Model

The Theory of Planned Behaviour states that background factors indirectly influence the behaviour of interest through the three predictor variables, attitudes, subjective norms and perceived behavioural control (Ajzen, 1991; Ajzen, 2011; Ajzen & Fishbein, 1977). To examine the ability of the TPB to incorporate the previously researched factors, structural barriers and stigma as an attitudinal barrier, all five factors were put into a linear model predicting intentions to seek help. Compared to the basic TPB model the total variance accounted for was the same at 26%, with only the three TPB predictors significantly contributing to variance in intentions. This showed that as direct predictors of intentions structural barriers and stigma added no statistical value to the TPB model. The ability of structural barriers and stigma to indirectly contribute to the model as background factors of the core three factors of the model were evaluated. Stigma was theorised to be mediated by the attitudes predictor because the underlying beliefs of attitudes in the TPB model are positive and negative attitudes of outcome evaluations (Ajzen & Fishbein, 1975), and stigma is a form of negative attitudes. The analysis looked at the path from stigma to intentions, with attitudes as a mediator, and found partial mediation. Partial mediation shows that attitudes accounts for some but not all of the relationship between stigma and intentions to seek help for mental health problems (Baron & Kenny, 1986). Structural barriers in contrast were fully mediated by the theorised predictor perceived behavioural control. Control beliefs are influenced by perceived enablers and obstacles to carrying out the behaviour, and structural

barriers are the physical and practical obstacles that prevent help seeking behaviour, so it was theorized that the two would interact. Only partial mediation of stigma, does not entirely support the assumption of the TPB that background factors only indirectly affect help seeking through the three main predictors, as a part of stigma is directly linked to intentions. Yet, the full mediation of structural barriers does support this assumption. Subjective norms and perceived control may also play a mediating role in stigma, however this was not examined. To conclude that stigma is not fully mediated as stated by Ajzen (1991) all three predictors would have to be analysed as potential mediators.

Considering the utility of a TPB model with stigma and structural barriers as background factors, compared to the traditional PSBCPP-SS model, the TPB model accounts for greater variance, all of the predictors contribute significantly, and it at least partially mediates background factors (Ajzen, 1991; Britt et al., 2000). The total variance of the TPB model including the background factors was not attained. Nevertheless, without them the TPB model accounted for 26% of variance compared to only 7% in the traditional model, suggesting a superior model of help seeking behaviour in this NZDF context (Ajzen, 1991). The TPB models total variance with background factors is likely to increase as mediation analysis showed stigma and structural barriers to contribute to intentions. This raises another important point, to consider the practicality of adding more factors to the behavioural model. Adding background factors to the model can increase the variance explained, but adds noise which can over inflate the variance accounted for by measuring the same factors multiple times (Whetten, 1989). For example, Kim et al, 2011 found negative attitudes towards seeking help as an additional barrier to care that accounted for unique variance when controlling for stigma and structural barriers. Including this new construct 'negative attitudes towards seeking help' into a linear model of intentions to seek help will likely increase the total variance explained. Nonetheless, it would likely be falsely inflating the variance as the

construct captures some of the same negative aspects of the attitudes factor in the TPB (Ajzen, 1991). Therefore, it is important to consider whether; the inclusion of new factors theoretically improve the model; if the payoff of increased variance explained is worth the added noise and reduced parsimony; and if they increase the statistical and practical utility of the purpose of the models use. In this current study, self-management was not incorporated into the model, although it could be theoretically linked to a loss of control if the individual moved from self-management to formal treatment. As the primary purpose of this study was to consider how the traditional PSBCPP-SS model (Britt, 2000) compared to and could be incorporated into the TPB model (Ajzen, 1991), rather than to consider how the TPB model would be altered by including additional factors, it was not advantageous to incorporate self-management. By adding self-management, we may have increased the total variance explained, but we also would decrease parsimony and increase measurement error noise with no real contribution to the purpose of the study.

These findings demonstrate the utility of the TPB to include any help seeking factors of interest. Whilst additional factors are not considered necessary to increase the ability of the TPB model to predict help seeking behaviour, a weakness highlighted through this study is that when considering the mediation relationship between only one of the three predictors and an antecedent factor, full mediation may not be obtained in every instance. Additionally, future use of this model can be altered for specific purposes, which gives military research the flexibility to consider any number of factors that arise as potentially influencing help seeking in the future.

Reciprocal Determinism

The TPB is intended to be a causal model in which background factors are mediated by the three core predictors. These predictors capture the motivational aspect of intentions,

and these combined with non-motivational factors due to a lack of volitional control cause the behaviour. However, Bandura's (1997) Social Learning Theory of Behaviour states that reciprocal determinism takes place as a part of the learning process. According to this theory, not only do the factors influence intentions and the behaviour, but the behaviour and intentions also influence the factors. For example, high perceived control over help seeking, along with positive attitudes and subjective norms all contribute to higher intentions to seek help, and greater help seeking behaviour. Yet, if an individual then seeks help the experience of doing so will likely impact the three predictors and intentions. A negative experience such as being medically stood down from work, not being in control of the type of treatment received, or unsuccessful outcomes could lead to negative attitudes and lower perceived control over the behaviour. This could also go in the other direction with a positive experience increasing positive help seeking intentions, as seen in the findings of this study which found past behaviour to be positively associated with greater intentions to seek help. Therefore, both positive and negative help seeking experiences can affect the predictors of help seeking, which in turn predict help seeking intentions and behaviour. Reciprocal determinism is important for the NZDF to consider when looking at the bigger picture of help seeking, as positive experiences of help seeking have the ability to promote more positive intentions for those personnel, as seen in this study. Positive experiences beyond the personal level at a social level, such as encouragement of help seeking by military hierarchy can also be influenced by reciprocal determinism. Through social learning the core predictors of the TPB can be positively influenced across the NZDF by these personnel sharing their positive experiences, further promoting positive help seeking outcomes.

Selection Bias

Although the TPB model explains the underlying predictors of help seeking behaviour, it does not fully account for the indicated lower levels of help seeking behaviour in the NZDF. The NZDF's recruitment process for on boarding new personnel is highly competitive and very thorough. As a part of the recruitment process, candidate's medical history is reviewed. The purpose of this is to ensure that those selected will be able to cope with stresses of military life such as deployment. Consequently, those that have any current or reoccurring mental health problems are selected out during this stage. Therefore, new recruits will have better mental health than a cross section of the average New Zealand population. This selection bias is fairly uniform across many military organisations as it is important for health, safety and performance. Nevertheless, studies still find a higher prevalence of mental health problems internationally in military personnel (Rona et al., 2009) and military personnel to be disproportionately reluctant to seek help compared to other occupations (Clement et al., 2015). From the limited data available it is expected that NZDF personnel engage in less help seeking than the general New Zealand population, but there is currently no reliable data available to assess the NZDF personnel's prevalence of mental health problems compared to other militaries. Selection bias may reduce the need for help seeking, or like other militaries mental health problems may be prevalent.

The selection of healthy personnel may also account for the relationship found in the current study, that younger personnel had lower intentions to seek help for mental health problems than older personnel. This is inconsistent with past literature that frequently finds younger personnel to have greater help seeking intentions and behaviours (Segal et al., 2005; van Zoonen et al., 2015). Personnel 24 years of age and under had significantly lower intentions to seek help in the event of mental health problems in the near future. As 18 years old is the youngest age to join the NZDF, this group of younger personnel are likely to be

fairly new to the organisation. Therefore, they have recently gone through the recruitment process at which stage the importance of being mentally healthy to gain entrance to the job was highlighted. Young, recently recruited personnel have been told that to carry out the job they must have good mental health, so disclosing mental health problems to the NZDF is likely to be more strongly linked to career barriers due to receiving this information temporally nearer than older personnel on average. This recent salience of the importance of good mental health is likely to negatively affect help seeking in new recruits which disproportionately affect the younger NZDF personnel. Consequently, the inconsistent relationship between younger age and lower intentions found in this study may be due to factors associated with recency of recruitment rather than age alone. This indicates that newer personnel's help seeking intentions are potentially being influenced by negative factors such as the knowledge poor mental health is selected out of the NZDF. Additionally, younger and likely newer personnel may also not yet have been exposed to some of the positive influences that older, often more long serving personnel have been.

Although the scale of the need for help seeking in the NZDF is not yet known, selection bias may be playing a role. Younger recruits are likely disproportionately influenced by more recent recruitment, and this may account for the lower help seeking intentions in younger personnel found in this study. Therefore, the NZDF could benefit from directing mental health help seeking initiatives towards newer recruits, with a focus on the underlying beliefs of the Theory of Planned Behaviour.

Group Level Differences

Differences in help seeking intentions between groups that had previously been found to frequently differ in help seeking were examined. Using the group level findings alongside the extended Theory of Planned behaviour model, the potential impact of groups on the core

factors will be described. Additionally, links between group differences will be inferred to highlight the importance of mental health education within various stages of the NZDF career progression.

Rank.

Firstly, looking at the findings of the relationship between rank and intentions to seek help, as hypothesised there was a trend for higher rank to be positively associated with intentions. Age was controlled for in this relationship as to gain higher rank personnel either climb the ranks or have additional training and are therefore likely to be older. The median ranged from 4.09 ($SD=.07$) to 4.92 ($SD=.16$), which suggests that although there is a significant trend to consider there was not an extreme difference with groups varying from neutral on average to slightly more positive intentions. The relationship between rank and intentions was only significantly different for Junior Non-Commissioned Officers, who had lower intentions than all other ranks, and Senior Non-Commissioned Officers who had lower intentions than Senior Officers. Non-Commissioned Officers gain their position and associated authority by means of promotion through the enlisted ranks, but are hierarchically below the equivalent Commissioned Officer (New Zealand Defence Act, 1990).

Commissioned Officers can gain their positions without having to climb the military ranks due to prior training outside of the defence force. This finding supports past literature that lower ranks may be a greater risk of lower intentions to seek help in the case of mental health problems, but also identifies a new group difference that non-commissioned personnel may also be disproportionately disadvantaged in this area. This difference may be influenced by perceived behavioural control as greater self-efficacy is linked to greater perceived control (Giles, Mcclenahan, Cairns & Mallet, 2004). Commissioned Officers that have been chosen on their prior merits or who are given this greater responsibility even as a junior officer may

have a greater sense of self-efficacy due to the recognition of their previous achievements or their recognised leadership potential allowing them to step into a high authority role. This in turn may lead to lower self-efficacy for Non-Commissioned Officers that have worked very hard within the organisation to move up the ranks, but are still placed beneath Commissioned Officers that in some cases are newer to the organisation. Therefore, this difference in avenues to gaining authority, recognition and responsibility with the NZDF may be influencing the three predictors of the Theory of Planned Behaviour beyond the basic hierarchy of rank (Ajzen, 1991; Ajzen, 2011). Therefore, when examining the effect rank has on help seeking it may not be as straightforward as hierarchy, as other factors such as learning and work history may be equally if not more important.

Distress.

Past literature has generated mixed findings in regards to the relationship between distress levels and both help seeking intentions and actual help seeking behaviour (Sharp et al., 2015). This study used the Kessler ten distress scale and grouped the scores into low, moderate and high levels of distress (Kessler, & Mroczek, 1994). On average there was less than .5 of a difference in means (*range*, High; $M=4.12$, $SD=1.90$ to Low; $M=4.52$, $SD=2.07$), which was statistically significant, but alongside the fairly large standard deviations and large sample size ($N=2623$) may not be overly significant in actual help seeking outcomes. Nonetheless, high and moderate distress levels were linked to significantly lower intentions to seek help than those with low distress levels. This shows that even moderate levels of distress can be problematic for NZDF personnel's help seeking intentions, therefore any distress should be targeted at the earliest stage possible. Gould et al., (2010) in one of the limited studies looking at help seeking in the NZDF found that mental health problems was associated with lower stigma and structural barriers. This was contradictory to

the three other western militaries that Gould and colleagues (2010) looked at in their study, and was theorised to be due to differences in the specific duties typically carried out by each military during deployments. Although this current study looked at differences in intentions between distress levels rather than stigma and structural barriers, it is possible that the NZDF is in fact in line with other militaries, in that distress leads to poorer help seeking outcomes. The discrepancy between Gould and colleagues (2010) findings and the current study may be due to comparing their findings of the relationship between distress and barriers to care, to the current findings of the relationship between distress and intentions, as they are not measuring exactly the same constructs. Nonetheless, due to the additional finding in this current study that greater barriers are linked to lower intentions, this link that higher distress is associated with greater barriers to care in the NZDF is perceivable, and in line with Gould's (2010) finding of other western militaries. Gould's (2010) sample did not represent the greater NZDF as it only contained 97 participants at the end of a six-month peace-keeping tour in Timor Leste. The sample was too small to generalise to the greater NZDF and the personnel had all been exposed to the same confounding factors such as recent deployment, peace keeping work, preparation to return to home base and psycho education during the 'Force Extraction Process' (Gould et al., 2010). Research has found that the relationship between factors that are negatively associated with help seeking such as stigma and structural barriers, and distress can vary over time, by deployment status and depending on the individual's current mental health status (Costello, 1993; Jones et al., 2015; Osorio et al., 2013). Therefore, the finding that higher distress levels are linked to lower intentions to seek help in the current study is from one cross section in time, and may be influenced by other factors not captured in this study, but is a good indication that greater distress is linked to lower intentions to seek help.

The relationship between intentions and distress found in this study is useful as it can be used to consider the influences of distress on the underlying beliefs of the Theory of Planned Behaviour (Ajzen & Fishbein, 1975). Using depression as one example of the mental health problems which can lead to personnel being distressed, links can be made with attitudes, subjective norms and perceived behavioural control. Symptoms of depression include decreased interest or pleasure, fatigue or loss of energy, feelings of sadness or emptiness, and decreased motivation (American Psychiatric Association, 2000). As intentions are fundamentally the motivational factors of actual help seeking, depression can reduce help seeking through both a decrease in general motivation to do anything, and through more negative perceptions of the predictors. Schomeurus and colleagues (2009) found that those with depressive symptoms had a greater proportion of variance accounted for by attitudes within the TPB model than those without depressive symptoms. Attitudes are likely to feel more negative as they are made up of underlying beliefs about the outcomes of seeking help, and general low mood may make perceived outcomes increasingly negative. Low motivation, in an individual experiencing depression whom perceives positive subjective norms in regards to seeking help, may experience low motivation to comply with these positive normative beliefs. Finally, depression is associated with fewer perceived enablers and resources, and greater perceived obstacles, which is likely to decrease perceived behavioural control (Costello, 1993). Although this is only one example of a mental health problem that can cause increased distress levels it shows how the Theory of Planned Behaviour can be influenced by distress levels to affect intentions to seek help (Ajzen, 1991; Ajzen, 2011).

Past behaviour.

Past behaviour was also significantly related to intentions to seek help, with those that had sought help for mental health problems in the past twelve months having significantly

greater intentions to seek help in the near future ($M=5.34$, $SD=1.76$), than those who did not ($M=4.10$, $SD=1.99$). This difference is also practically important as those who had not recently sought help were close to neutral with their intentions, whereas those who had previously sought help, were likely to seek help again. It is important to note the difference in group sizes as they were uneven, with only one fifth of respondents having sought help in the past twelve months. This difference in numbers is expected due to a large portion of people not having mental health problems in the last twelve months and a lesser portion that did have problems but did not seek help. Past behaviour is a measure of whether one has recently experienced help seeking, and experiences play a major role in the learning of the underlying beliefs of attitudes and control, as well as normative beliefs and motivation to comply with them (Ajzen & Fishbein, 1975). The help seeking experience can be positive or negative, with a positive experience associated with greater future intentions and a negative experience with poorer future intentions. A positive outcome, for example, will increase the prediction that help seeking leads to good outcomes based on past experience, leading to more positive attitudes. Past help seeking may have also been associated with social norms such as family and co-workers supporting personnel to seek help, reinforcing positive norms, or in the case of negative norms the motivation to comply decreasing due to them being disproved through a positive experience. Finally, successfully seeking help is likely to create greater perceived control over seeking help in the future, as any potential obstacles were overcome in the process.

Past help seeking behaviour in the NZDF is positively associated with greater intentions to seek help in the near future which suggests that of those that have sought help and remained in the NZDF their experiences are positive. This study did not investigate whether help seeking resulted in the personnel leaving the organisation. However, as a fifth of respondents had sought help and remained within the NZDF, showing personnel

successfully get the help they need to return to their role. Given this, the relationship between seeking help and future intentions to seek help support that treatment is often leading to positive experiences. However, this is of little consequence for personnel who have never sought help and have low intentions to, unless these positive experiences are utilized to help others overcome the negative underlying beliefs. This will be discussed further in regards to the importance of mental health education.

Deployment.

With just over half of the current studies sample previously being deployed, it was found that those who have been deployed have significantly greater intentions to seek help if they had mental health problems in the near future. Although, the average difference between the two groups was minimal (Never deployed; $M=4.26$, $SD=2.00$, Previously deployed; $M=4.45$, $SD=2.02$) the trend is still noteworthy, as even small increases in intentions may be practical in aiding help seeking. Furthermore, from a research perspective behaviour is commonly made up of small influences of many factors that compile to influence the behaviour, as seen in the Theory of Planned Behaviour model (Ajzen, 1991). Osorio and colleagues (2013) found that deployment influenced military personnel's perceived barriers to seeking help, with stigma and structural barriers increasing during deployment compared to pre-deployment, and decreasing post-deployment compared to both pre-deployment and during deployment. Although their study found lower stigma and structural barriers after deployment compared to beforehand, they only looked at immediately after deployment and no long terms effects were examined. The current study found that on a group level, of those that have been deployed in the past over a variety of time periods, deployment is associated with slightly greater intentions to seek help. This demonstrates that the positive effects of deployment on help seeking may have long lasting effects. Psychoeducation given both pre

and post deployment to NZDF personnel is likely to play a role in this trend. It aims to break down negative stigma surrounding mental health, increase awareness of symptoms, and increase awareness of the resources and avenues available. This positive relationship found supports that the current psychoeducation is likely to be having a positive influence on help seeking.

Age.

This study hypothesised that younger NZDF personnel would be more likely to seek help than older personnel, which was based on past trends found in both military and general population samples (Corrigan et al, 2003; Lebowitz & Niederehe, 1992; Sarkisian et al., 2003; MacKenzie et al., 2006; Segal et al., 2005; van Zoonen et al., 2015). This hypothesis was not only not supported, but the complete opposite was found, that younger age was related to lower intentions to seek help. The analysis controlled for rank as it was anticipated that an increase in age would be associated with an increase in rank. Examining age groups from under 20 years old to over 60 years old showed that those under 20 had significantly lower intentions to seek help than the groups that ranged from 25 to 59-years old. Additionally, the 20 to 24-year age group had significantly lower intentions to seek help than both the 30 to 39 and 40 to 49-year groups. Although the group averages range was fairly small (*range* $M=3.61$ to $M=4.57$) a visual inspection of the mean changes in intentions for each age group showed a trend for intentions to climb with age up to 49 and then gradually decrease. It is important to note that the under 20 years ($N=94$) and the 60 years and over ($N=47$) age groups were considerably smaller than the others. This is expected due to 18 being the youngest recruitment age and 65 being the current retirement age in New Zealand (Crossan, Feslier, & Hurnard, 2011). The visual drop off in intentions in the over 60 years' age group was not significantly different to any of the other age groups and had a

considerable standard deviation ($SD=2.40$), which suggests the decline may be influenced by the small sample size of the group rather than true differences in intentions. The fundamental difference seen in the findings is that personnel 24 years and younger are at greater risk of lower intentions to seek help compared to their older colleagues. Greater investigation is warranted to examine the effect that age has on help seeking behaviour, as this finding contradicted past literature. It is, however, in line with trends seen in other group differences that more experience and education is associated with better help seeking intentions.

Gender.

There were nearly four times as many males ($N=2078$) compared to females ($N=528$), and only 5 personnel that identified as other than male or female. Due to an extremely small sample size the other group would not have the statistical power to show a true between group differences (Button et al., 2013), it did however have the lowest mean intentions to seek help ($M=3.80$, $SD=2.78$). This indicates that although this group is small it may be at greater risk of low intentions to seek help, and would benefit from further investigation. As hypothesised females had significantly higher intentions to seek help than males. This shows that despite the impact of a macho culture associated with militaries, females are still more likely to seek help than males. The NZDF is involved in combat deployments, yet compared to other militaries they carry out a greater proportion of peacekeeping, aid, disaster relief and support missions (Gold et al., 2010). Females have been found to be more empathetic and stereotypically seen as nurturing and caring (Blakemore, Baumgardner & Keniston, 1988). These are qualities that would benefit the roles within many of the NZDF deployments, but may be seen as weaknesses in combat situations. Therefore, due to the specific deployment work the NZDF carries out, females may feel more empowered and their innate skills highly

regarded rather than seen as weaknesses, counteracting the potential negative effect of the military 'macho' culture on help seeking intentions (Iversen et al., 2011).

Experience and Learning

In this study higher rank, older age, deployment history and past behaviour were all found to positively relate to greater intentions to seek help for mental health problems in the near future. They are also all associated with greater experience, whether that be in life in general or within the NZDF. Therefore, learning overtime both formally and through experiences may be contributing to increased intentions to seek help for mental health problems. Mental health literacy is the knowledge and beliefs about mental health which aid individuals in recognising, managing and preventing mental health problems (Jorm, 1997). Learning is crucial to increase mental health literacy, and is likely to occur both formally, and through experiences, both personally and that of others. Psychoeducation is a form of formal learning which aims to educate personnel about mental health and increase mental health literacy by teaching triggers, symptoms and measures to take if personnel suspect they or their colleagues are having problems. The NZDF carries out psychoeducation at different stages with an emphasis pre and post deployment. The positive relationship between deployment and help seeking intentions supports the impact formal learning of mental health education is having in the NZDF. However, as with all behaviour individuals learn through their experiences whether seeking help is likely to be valuable and result in positive outcomes, or if there are too many obstacles or the help itself results in negative outcomes (Bandura, 1977). Oulette and Wood (1999) state that engaging in behaviour such as help seeking makes behaviours habitual, which would explain why those that have sought help recently (past behaviour) have more positive intentions to do so in the near future. However, one off help seeking may not be enough to create habitual behaviour. Oulette and Wood

(1999) state that habitual behaviour is more prevalent where the behaviour is less complex and requires less thought, which is not in line with the seemingly complex nature of help seeking. Therefore, giving consideration to the significant variance accounted for by attitudes in the Theory of Planned Behaviour model, the outcome evaluations are likely to be more important to the behaviour than habitual repetition of an experienced behaviour (Ajzen, 1991). This means that positive experiences of help seeking are likely to lead to direct learning of the positive outcomes and increase intentions to seek mental health help seeking in the future.

Thus far, both formal learning and direct experiences have shown probable links to greater help seeking intentions, yet a portion of NZDF personnel that make up the higher ranks and older age groups that tend to have greater intentions, will not have been deployed or needed to seek help personally, yet they still have more favourable intentions. According to Banduras (1977) Social Learning Theory the majority of behaviour and expected outcomes is learnt through modelling, imitation and observation. Therefore, those that have been within the NZDF longer may be more likely to have observed examples of others seeking help and successfully returning to their role, showing that if they needed help in the future for mental health problems, modelling help seeking would also result in positive outcomes. For those that have had less opportunity to learn formally, through direct experiences and indirectly through others experiences, they are more likely to perceive more negative outcomes and have less knowledge about the process involved and resources available in seeking help. This would negatively affect the underlying beliefs of attitudes and perceived control over help seeking leading to lower intentions to carry out the behaviour.

If learning is playing a major role in increasing positive attitudes and perceived control over the behaviour, a key factor from the Theory of Planned Behaviour found to be lacking in the NZDF may be partially responsible for lower intentions in personnel with less

experience and limited learning opportunities (Ajzen, 1991; Ajzen, 2011). Subjective norms were found to contribute the least to intentions to seek help out of the three predictors of the Theory of Planned Behaviour. However, in other cultures subjective norms has shown to play a much bigger part in behaviour, so it is possible for them to influence behaviour given the right circumstances (Mak & Davis, 2013; Mo & Mak, 2009). Subjective norms in this study consider perceptions of if others would want the individual to seek help, and if those important others would seek help themselves, along with how important that is to the individual. The low correlation between subjective norms and intentions may indicate a true lack of ability of subjective norms to predict help seeking. However, since subjective norms has such a strong influence in other cultures, the low correlation found in the NZDF may also be the result of subjective norms not being sufficiently salient due to the stigma of mental health resulting in a lack of discussion (Mak & Davis, 2013; Mo & Mak, 2009). If learning about mental health through others experiences can increase intentions to seek help but these discussions are not happening due to the stigma of discussing problems, then individuals don't truly know if their colleagues, families and friends would want them to seek help or if they'd seek help themselves. For example, stigma items in this study such as, "I would be seen as weak" ($M=2.49$, $SD=1.33$), "People might have less confidence in me" ($M=2.83$, $SD=1.38$), and "It would be too embarrassing" ($M=2.41$, $SD=1.27$) support that to many NZDF personnel, negative stigma barriers are fairly salient (*note these items were on a 5-point scale*). Perceived loss of confidence, embarrassment and weakness are all reasons that may prevent the discussion and subsequent social learning about mental health literacy through positive personal experiences. Given this lack of open honest discussion a vital link may be missing in the learning process, which slows down and reduces opportunities for newer personnel to learn about the resources and benefits of seeking help when mental health problems arise.

Practical Utility of the Theory of Planned Behaviour

Support for the use of the Theory of Planned Behaviour's practical utility to inform behaviour in military settings can be found in both recruitment and screening, and the development of technology based mental health care for veterans. Reichert, Kim, and Fosu (2007) used the Theory of Reasoned Action (*TPB's predecessor see, Fishbein, 1980*) and found that exposure to USA Naval recruitment infomercials increased positive beliefs about the Navy, but did not significantly increase interest in intentions to enlist. Nevertheless, social norms which make up part of the subjective norm predictor, had a significant impact. This highlights how the theory can be used to better understand what influences behaviours and how it can be applied to an organisations practices. In this example resources were being misused on infomercials that weren't having a significant impact on recruitment outcomes. It also shows that subjective norms can influence behaviours if they are sufficiently salient. The current study has found links between differences seen in groups, which indicates that learning and experience may be playing a role in intentions to seek help. However, it was also found that subjective norms played a fairly small role in predicting help seeking intentions in the NZDF. Rather than writing subjective norms off as a poor predictor of help seeking intentions it could be utilised through social learning (Bandura, 1977) to increase its salience and predictive validity. As trends have indicated lower ranks, no deployment history and younger age are all significantly more at risk these groups are likely most disadvantaged from limited social learning opportunities. Taking this into account initiatives focused at the early stages of NZDF personnel's careers would be most beneficial. Initiatives could include higher rank personnel that have successfully overcome problems through help-seeking sharing their experiences with new recruits. A focus on all three of the Theory of Planned Behaviours predictors would provide structure and create more positive underlying beliefs. For example, the sharing of positive outcomes and respect during treatment to improve

attitudes. The support from the individual sharing their experience and the support experienced by the NZDF throughout the process could improve subjective norms. Finally, explaining exactly how the process worked for them and where they sought help will teach new personnel the resources available and increase perceived control over help seeking.

As with the initiative recommended above, the Theory of Planned Behaviour has previously been linked to informing mental health education tools. Whealin, Kuhn, and Pietrzak (2014) describe the potential efficacy of this theory to inform and create online web based educational tools for veterans. Their paper aligns a successful pre-existing online tool called “Considering Professional Help” created by the USA Veterans Association’s National Centre for PTSD, with the Theory of Planned Behaviour (Kuhn, Drescher, & Hoffman, 2013). By using this example, they outlined the importance attitudes, subjective norms, and perceived behavioural control can have in the development of interventions to increase help seeking in veterans. Their research is somewhat restricted as they have endeavoured to fit the theory to an already successful intervention, rather than using the theory to inform an intervention, and then demonstrate its value. Notwithstanding this, they show encouraging theoretical links between the factors of the Theory of Planned Behaviour and how they have the potential to inform future interventions, given their relevance to a past intervention. This supports the potential for the findings from this study to practically inform the NZDF to both better understand factors impeding help seeking behaviour and with this the development of interventions to increase help seeking in their personnel.

These findings from both the Theory of Planned Behaviour and group level differences in help seeking can practically inform the progression of approaches to mental health help seeking (Ajzen, 1991; Ajzen, 2011). An increase in Social Learning through shared positive experiences of senior ranked personnel as a part of induction into the organisation, along with formal mental health literacy psychoeducation with a focus on the

factors underlying attitudes and perceived control is likely to have a positive impact on younger, lower rank, non-deployed personnel that have not needed to seek help in the past. Culture change studies support that a positive change in culture such as encouraging open discussion of mental health help seeking, needs to come from both higher level employees as well as new candidates to have the greatest impact (Lakomski, 2001). By encouraging the discussion of mental health help seeking, learning can occur more rapidly through indirect experiences and the influence of positive subjective norms may become more salient in predicting help seeking intentions.

Future Direction

There are three notable limitations of the present research which present opportunities for future research. Firstly, due to the cross sectional nature of the study design the data was taken from a single period in time, and relied on participants to reflect back and report on past help seeking events, and rely on their predicted intentions for future help seeking behaviour. Thinking back on events can be unreliable due to memory. However, to minimise this, past help seeking was kept to just one straightforward yes or no response question in regards to the specific past behaviour (Brutus, Aguinis, & Wassmer, 2013). Intentions have shown to be consistently related to actual behaviour, yet other factors such as a lack of volitional control can influence the actual behaviour resulting in a non-direct correlation (Armitage & Conner, 2001). The Theory of Planned Behaviour is ideally suited to a longitudinal study design but due to the timeframe available for this research that was not possible. This limitation creates an opportunity for future follow up research examining how reliably NZDF personnel's intentions reflected their future help seeking behaviour.

The second limitation is the methodological use of a self-report survey to capture the data. Self-report surveys are necessary when examining the Theory of Planned behaviour

because the measures rely on an individual's perceptions and intentions which are not observable externally (Beehr & Newman, 1978; Jex, 1998). Nevertheless, this method means that participants responses are taken at face value. This can be biased by phenomena's such as selective memory, telescoping, and exaggeration (Brutus et al., 2013). This limitation was taken into consideration in the study design and the advantages of self-report methods to examine internal beliefs and intentions outweighed the potential biases. Future research could incorporate medical records to align what has been reported with factual files for measures such as past behaviour.

The final limitation is that this study relied on the assumption that NZDF personnel will have the self-awareness and knowledge of when they require help for mental health problems, and that they will see their needs worthy of help seeking. The ability to recognise mental health symptoms, disorders, and psychological distress, along with viewing them as requiring help is a part of 'mental health literacy'. Jorm et al. (1997) defined 'mental health literacy' as, "the knowledge and beliefs about mental health disorders which aid their recognition, management or prevention". The help seeking intentions measure in this current research relies on the 'recognition' of mental health problems to carry out help seeking behaviour. A Canadian Community Mental Health Survey which had a national response rate of 77%, found that 8.5% of the population were not aware they had a mental health problem, therefore this is likely a significant barrier to help seeking (Gravel & Béland, 2005). Britt and McFadden (2012) found that it was difficult for military personnel to recognise mental health problems due to exposure to combat, increasing the potential salience of this problem. Consequently, future research into help seeking may benefit from including measures of 'mental health literacy' and individuals perceived need for help. This would allow comparisons to be made with Kessler ten distress scores to assess the ability of personnel's awareness of the need for help (Kessler, & Mroczek, 1994).

Conclusion

This study has found support for the use of the Theory of Planned Behaviour model to predict help seeking intentions superior to the previously utilized stigma and structural barriers model. There was also partial support for the Theory of Planned Behaviour model to incorporate stigma and structural barriers as antecedent factors of the three core predictors of intentions to seek help for future mental health problems. It was found that reciprocal determinism is also likely to be enacting on the three predictors, which isn't detailed within the original framework of the model by Azjen (1991). Comparisons between mental health problems of NZDF personnel and the general population may also be influenced by selection bias, which selects out those with mental health problems during recruitment. This in turn may also increase stigma surrounding help seeking by highlighting the importance of being mentally healthy to new personnel. Group level differences showed younger, lower rank, non-deployed, male, distressed and those that had not previously sought help to be at greater risk of lower intentions to seek help. A common link between groups suggested learning of mental health literacy may be crucial to increasing help seeking intentions. Past studies have found the Theory of Planned Behaviour to successfully inform mental health interventions. Consequently, the current findings support that learning formally and through others experiences early on in the on boarding phase can assist in greater help seeking intentions by positively affecting the underlying beliefs of the Theory of Planned Behaviour. Using these findings, it is recommended that the NZDF aims to take practical steps early on in their personnel's careers, such as the sharing of positive help seeking experiences from higher ranked personnel. Utilizing the Theory of Planned Behaviour to inform mental health help seeking education would enable personnel to get the most value from the learning experiences, as it covers core factors proven to influence help seeking intentions.

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Appendices

Appendix A

Massey University low risk ethics approval



Date: 23 March 2016

Dear Egidia Boyd

Re: Ethics Notification - 4000015772 - A Theory of Planned Behaviour Approach to Help Seeking in the New Zealand Defence Force.

Thank you for your notification which you have assessed as Low Risk.

Your project has been recorded in our system which is reported in the Annual Report of the Massey University Human Ethics Committee.

The low risk notification for this project is valid for a maximum of three years.

If situations subsequently occur which cause you to reconsider your ethical analysis, please go to <http://rims.massey.ac.nz> and register the changes in order that they be assessed as safe to proceed.

Please note that travel undertaken by students must be approved by the supervisor and the relevant Pro Vice-Chancellor and be in accordance with the Policy and Procedures for Course-Related Student Travel Overseas. In addition, the supervisor must advise the University's Insurance Officer.

A reminder to include the following statement on all public documents:

"This project has been evaluated by peer review and judged to be low risk. Consequently, it has not been reviewed by one of the University's Human Ethics Committees. The researcher(s) named in this document are responsible for the ethical conduct of this research."

If you have any concerns about the conduct of this research that you want to raise with someone other than the researcher(s), please contact Dr Brian Finch, Director - Ethics, telephone 06 3569099 ext 86015, email humanethics@massey.ac.nz.

Please note, if a sponsoring organisation, funding authority or a journal in which you wish to publish requires evidence of committee approval (with an approval number), you will have to complete the application form again, answering "yes" to the publication question to provide more information for one of the University's Human Ethics Committees. You should also note that such an approval can only be provided prior to the commencement of the research.

Yours sincerely

Research Ethics Office, Research and Enterprise
Massey University, Private Bag 11 222, Palmerston North, 4442, New Zealand T 06 350 5573; 06 350 5575 F 06 355 7973
E humanethics@massey.ac.nz W <http://humanethics.massey.ac.nz>

Human Ethics Low Risk notification

Dr Brian Finch
Chair, Human Ethics Chairs' Committee and Director (Research Ethics)


Appendix B

New Zealand Defence Force research approval

UNCLASSIFIED

HEADQUARTERS NEW ZEALAND DEFENCE FORCE
Organisational Research
MINUTE

5000/PB/5/3

 Jul 16


DDHRP&R

**APPROVAL TO CONDUCT RESEARCH: MENTAL HEALTH HELP SEEKING
STUDY (ORG RESEARCH 2016/13)**

References:

- A. DFO 3, Chap 5, Part 14: Authority to Conduct Personnel Research
- B. Stand Alone DFO 01/2015: Release of Publications into the Public Arena

Background

1. In accordance with Ref A, Miss Egidia Boyd, an external researcher has submitted a request to conduct research to explore mental health help seeking in the NZDF. This Masters thesis project is sponsored by LTCOL Clare Bennett (Chief Mental Health Officer, Health Directorate).
2. The research aims to increase understanding of the influence of stigma, barriers to care, and social support on mental health help seeking in the NZDF. It is expected that the findings will identify focus areas that will more effectively encourage positive help seeking behaviours in NZDF personnel.

Methodology

3. This quantitative research will use archival data from the Health Directorate's larger NZDF Mental Health and Wellbeing Survey approved and scheduled for 10 Oct 16. NZDF Regular Force and Civilian personnel will be invited to voluntarily and anonymously participate in the NZDF Mental Health and Wellbeing Survey.
4. The researcher intends to use the data collected from several recognised scales which measure: stigma, barriers to care, mental health help seeking, social support, and overall wellbeing. The researcher will also obtain some demographic data: gender, rank, age, civilian/regular/reserve force, and service. The data will be analysed using SPSS.
5. The data will be password protected and stored on the researcher's personal computer.

Reporting and Release

6. A Master's Thesis will be prepared and consequently made publicly available through the Massey University Library. Any further publication will require NZDF agreement.

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7. The researcher is to provide a copy of the research report to Organisational Research upon completion. Additionally, any subsequent publications are to be sent to Organisational Research for review prior to external publishing in accordance with Ref B. Any substantive variations to previously approved research must have the written consent of DDHRP&R.

Confidentiality and Ethics

8. Participation in the larger NZDF Mental Health and Wellbeing Survey is voluntary and informed consent will be obtained. Participants will not be identified individually in any reporting resulting from either piece of research.

Endorsement and Approval

9. I have reviewed this project and am satisfied that all ethical and scientific requirements required by Ref A are adequately met.

10. It is therefore recommended that DDHRP&R:

- a. **Approve** the proposed research project
- b. **Note** the completed the 'Deed Pro Forma', dated 10 May 16

Approved
Noted



A.S. TABOR
Principal Advisor Organisational Research

DTelN Phone: 349-7118
Email: Aidan.Tabor@nzdf.mil.nz

Enclosures:

1. Research application form
2. 'Deed pro forma for external researchers', dated 10 May 16
3. Email trail, dated 18 Jul 16

UNCLASSIFIED

Appendix C

Invitation email sent to participants

NZDF Health and Wellbeing Survey 3-16 October

As we draw near to the end of another very successful but busy year, it's timely to pause and take stock of how we are all going. Being physically and mentally healthy underpins how we perform as an individual, family member, and as a member of our Defence community.

It is important our resources are invested in the right places to keep us healthy and well, and to ensure that we have the support we need to navigate through whatever challenges life can sometimes throw at us.

Life can get challenging at times and not everyone recognises when they are not tracking so well, and asking for help when we need it can be difficult, so it's important to take time to pause and check how we're going, and to help the organisation better understand and respond to any areas of need.

The survey is voluntary but I encourage all members of the NZDF to take the time to complete it. The front page of the survey explains more about it, including that it will take around 20 minutes to complete, that it's anonymous (you can't be identified).

You can complete the survey by:

1. Clicking on the attached link [here](#). Once you start it, you can come back to it later if you need to, or if the link is lost you can start where you left off by clicking on the link again.
2. Complete a paper copy of the survey; this has been circulated to units with limited access to emails and paper copies will also be available at Libraries and Defence Health Centres.
3. Request to be emailed a copy of the survey that you can print, complete and return via mail directly to us at healthcheck@nzdf.mil.nz.

The attachment contains a list of resources and contacts where you can get help should you be concerned about how you or someone else is going. More information about the survey can be found by clicking on this [link](#) or by contacting healthcheck@nzdf.mil.nz.



List of support resources.docx...

I'll be completing the survey and I encourage you to do the same. I think that's a good investment in helping keep all of our people happy, healthy and safe.

Lieutenant General Tim Keating, MNZM
Chief of Defence Force
NEW ZEALAND DEFENCE FORCE

Proud to be part of the New Zealand Defence Force
A FORCE FOR NEW ZEALAND -- Join us

Appendix D

Information sheet and mental health support contacts



NZDF Health and Wellbeing Survey

What is this survey about?

The health and wellbeing of NZDF members is an important part of how we perform as a team, and an organisation. The aim of this survey is to get a picture of the current health and wellbeing of our people so that we may better understand and identify any areas of need. This is a key step in helping keep our people safe and well.

What is involved in the survey?

The survey will take most people no more than 20 minutes to complete. There is an additional section on deployments that will require a little extra time if you have been deployed.

The survey is **anonymous** and no attempt will be made to identify you. This is because we ask some sensitive questions and it is important you feel comfortable answering these honestly and without worrying about being identified. However, because the survey is anonymous we do ask that you provide some basic demographic information at the end of the survey to help us understand patterns of health and wellbeing across different groups.

What questions will be asked?

There are six sections in the survey – these ask about your overall wellbeing, life experiences, resilience, your job, physical health and attitudes about help seeking. The job section includes questions about deployments that you can skip if you have never been deployed. You can find feedback about how you are doing in two areas of wellbeing at the end of the survey.

Some questions are of a personal nature and you do not have to answer these if you do not want to. If you find involvement in this survey distressing or if you have concerns about your health and wellbeing or that of someone else, information about a range of support options available is provided at the end of this survey.

What do we do with the information?

The data will be collected, collated and reported at an aggregated level. The information collected in the survey will be used for internal and external research projects approved by the NZDF and may also form the basis of reports and academic publications. A summary of the results of the survey and any key areas for action identified will be communicated by the end of the year, and a summary of findings will be released externally in early 2017. If you would like to be sent a summary of the results, please email healthcheck@nzdf.mil.nz.

How will we maintain your privacy?

This research is being conducted in accordance with the Privacy Act (1993) and DFO 3 14[5] Authority to Conduct Personnel Research and has been approved by CDF. Data from paper copies of the survey will be entered into a database and then the copies will be destroyed. Your personal data will not be identifiable. The full database will be securely, electronically stored and will only be accessible by the research team. The database will be retained as part of a longitudinal research study which you will find more information about at the end of this survey. By completing this survey you are giving your consent for your personal information to be used for the purpose and in the manner described above.

Why should I participate?

Your contribution is important to helping build a current and accurate picture of health and wellbeing across the NZDF and to inform decisions that aim to improve health and wellbeing for all NZDF staff. Nevertheless the survey is voluntary and you may decide not to take part or withdraw from the study without any disadvantage to yourself of any kind.

Please complete all sections by following the instructions at the beginning of each question.

The information collected in this survey is Unclassified and while the survey is anonymous, you must not disclose sensitive or classified information.

Some questions may seem a little repetitive, but this is necessary due to the questions being grouped into scales.

The term '*organisation*' is used throughout the survey and refers to the unit that you are currently employed with.

If you would like more information about the study, contact:

Lt Col Clare Bennett, Chief Mental Health Officer, Health Directorate, HQ NZDF

clare.bennett@nzdf.mil.nz 04 496 0524 or healthcheck@nzdf.mil.nz

INSTRUCTIONS

- Read the instructions that correspond to each section of this survey
- Use a dark PENCIL ONLY (or pen if you can't find a pencil)
- Fill in the circle completely under the appropriate response



- If you want to change your response, ERASE or CROSS OUT your initial response and fill in the desired circle



SUPPORT

If you find involvement in this survey distressing in any way you can talk to someone about it. If you have concerns about your mental health or that of someone else, there are a range of internal support options available including colleagues and leaders. Additionally, you can contact medical staff, chaplains, social workers, SAPRA and psychologists for military personnel, and EAP and external practitioners for civilians.

Alternatively there are a range of telephone helplines available:

+ **All Hours Support Line 0800 NZDF4U 0800 693 348**

A confidential telephone support service for NZDF members and their families

+ **VITAE 0508 664 981**

A confidential telephone support service for civilian members of the NZDF

+ **VANZ 0800 4838372**

A confidential helpline for veterans

+ **SAPRA 0800 693 324** – support for sexual assault

Lifeline 0800 543 354

Confidential counseling service for the general population

+ **Depression helpline 0800 111 757**

+ **Women's Refuge 0800 733 843** (24 hour crisis line for women dealing with violence in their life)

+ **Mensline 0800 636 754** (Confidential helpline for men) formatting line

+ **Alcohol and Drug helpline 0800 787 797**

+ **Youthline 0800376663 (or text 234)**

IN AN EMERGENCY CALL 111

More information about mental health and available support can be found on the following sites:

NZDF

NZDF **Force4Families** site <http://www.nzdf.dixs.mil.nz/families/default.htm> or nzdf.mil.nz/families/default.htm

NZDF **Mental Health** site <http://orgs/sites/nzdf-mh/default.aspx> (Intranet)

NZDF Sexual Assault Support <http://www.nzdf.mil.nz/personnel-records/sart/about/default.htm>

General Mental Health information, stories and tools:

www.mentalhealth.org.nz – Mental Health Foundation – information, stories, tools and support

www.TheLowdown.co.nz – information, stories, and interactive site designed for young people

www.moh.govt.nz/moh.nsf/indexmh useful self-help resources for recognising and managing stress (Ministry of Health)

www.hpa.org.nz -Health Promotion Agency – range of health information for NZers

www.livingwell.org.au - practical resources and support for men

www.depression.org.nz – information, resources and support

www.alac.org.nz – information, resources and support (drugs and alcohol)

www.beyondblue.org.au – anxiety and depression (Australian site)

www.skylight.org.nz - offers services to those facing tough times due to change, loss, trauma and grief - whatever the cause, and whatever their age (including for children)

www.likeminds.org.nz - aims to address stigma and discrimination sometimes associated with mental illness, contains resources, help options and stories from people with mental illness

www.livemoreawesome.com – information and support for those dealing with depression

www.veteransaffairs.mil.nz – site for veterans (NZ)

<http://at-ease.dva.gov.au> – site for veterans (Aus)

www.force4families.co.nz - information and resource site for family members (NZDF)

www.supportingfamilies.org.nz – support, info and resources for those supporting family members with mental illness

www.militaryonesource.mil – support for the military community (US)

www.sesamestreet.org/parents/topicsandactivities/toolkits/tlc# - resources to support military families including deployments, homecomings, grief, injuries, and self-expression (US)

www.sparx.org.nz – online tool for young people sponsored by MoH

<http://www.leva.co.nz/> - resources, tools, information and support for Pacifica people

<http://teraumatatini.com/m%C4%81oriora> - information about Māori workforce training, education and capability-building solutions

General Health information, stories and tools:

<http://authoritynutrition.com/about> - evidence based healthy eating advice

<https://www.heartfoundation.org.nz/healthy-living>

Frequently asked questions

When is the survey?

The survey commences 3 October and will be open for two weeks through to the end of Mental Health Awareness Week (10-16 October).

Why are we doing it?

As we come to the end of another busy year, it's important we take the time to check how our people are going and understand and respond to any areas of need. While we are a predominantly healthy population and it's likely most of our people will be going well, we are nevertheless a reflection of the broader NZ demographic where 1 in 5 NZers experience mental illness or addiction in any one year. Alongside the occupational demands of our roles our people are also faced with a range of personal life experiences. Not everyone finds it easy to ask for help when they need it, or chooses to seek help internally. The information you provide will be used to understand any areas of need and shape our focus on wellbeing initiatives.

What is in the survey?

There are six sections in the survey – psychological wellbeing, life experiences, resilience, work (including deployments), physical health and attitudes about help-seeking. Feedback is provided about how you are going in two areas (psychological wellbeing and alcohol use) at the end of the survey. A list of support options is provided.

How long will it take?

The survey will take most people approximately 20 minutes to complete. There is an additional section on deployments that will require extra time for those who have been deployed.

Can I save my survey progress and come back to it?

We are sorry, we know this is frustrating. The survey platform provider has indicated this function should be working so it may be our system and we are encouraging people to complete the survey in one sitting if possible.

I tried to come back to the survey and my progress has been lost.

We are sorry, we know this is frustrating. We've notified the survey platform provider and they are working on it but in the mean time we are encouraging people to complete the survey in one sitting if possible.

You say the survey is anonymous, what does this mean?

We do not ask you to identify yourself and your survey response is not tracked back to you. We use an external survey platform (Qualtrics) to assure this. This is because we ask a number of sensitive questions and it is important participants feel comfortable answering these honestly. Basic demographic information is collected at the end of the survey to identify any patterns of health or risk across different groups. You have the option of not providing particular demographic information if you are concerned this could be used to identify you.

What can I do if I am still concerned about anonymity?

We can't identify you but if you are concerned, you can request to be sent a paper version of the survey or pick one up from your local Library or Defence Health Centre. You can complete it and send this back to us via the internal mail system. We don't ask for your name and as you'll be able to see there's no number or barcode on the survey.

How do I complete it?

The survey is administered electronically using an external CIS and GCIO approved survey platform (Qualtrics). You can also complete a paper copy version of the survey and return it via internal mail directly to the Health Directorate. Contact us at healthcheck@nzdf.mil.nz for a copy.

What if I don't have access to email or internet?

Paper copies of the survey will be made available in those areas where our people have limited access to computers or you can request to be sent a paper copy. Contact us at healthcheck@nzdf.mil.nz for a copy.

Why is it important I participate?

The survey is voluntary; you do not have to complete it. However, a good response rate is important for building an accurate picture of how we are going across different groups. With limited resources it's really important to ensure we are focused on the right things and in the right way.

Why is the survey asking so many personal questions?

Our overall health and wellbeing is shaped by our life experiences over time. A range of risk and protective factors spanning the physical, psychological, social and spiritual domains of health influence how we are going at a point in time. These will vary across individuals and over time and may include things like the role of diet, sleep and exercise; physical or mental health/illness/injury; financial or relationship pressures; prior life experiences; workplace environment and workload; the balance we are able to maintain across the domains of our life and the fulfillment we feel; and the support systems we have in place. Even positive events in our lives, such as a promotion or starting a family, can sometimes have an impact on our overall health and wellbeing. The survey will help us better understand the range of challenges our people may be facing, as well as the sorts of things that help people stay well in the face of life's challenges over time. We'll use this information to ensure that the NZDF is providing the right support for our people to stay healthy and well, and access timely support when it is needed.

Some of the deployment questions seem land centric? How do I answer these if I wasn't on a land-based mission?

Please consider the deployment questions in terms of your own environmental context.

What do my scores at the end of the survey mean again?

In case you didn't get the chance to look at these, the information is below. Remember, please use this information as a guide, if you have any concerns about how you are going, seek help.

K10 Psychological Wellbeing

10-14 Low

Your score falls into the low range. This means you're doing pretty well! It's important to remember that this result is not a diagnosis. If you feel down, sad, stressed or anxious, you might want to speak to someone (eg. doctor or other health professional).

15-19 Moderate

Your score falls into the moderate range. Some people who score in this range have mild depression and/or anxiety. We encourage you to see your doctor or health professional for a more personalised assessment.

20+ High

Your score falls into the high range. Many people who score in this range are experiencing depression and/or anxiety. We strongly recommend that you see your doctor or health professional for a more personalised assessment.

Note: Scores can sometimes be influenced by particular life events, such as a recent change in circumstances (e.g. financial pressures, birth of a child, relationship breakdown), or a busy work period. These feelings may only last a short period of time, however if you are experiencing signs of distress that have endured over the last four weeks you are strongly encouraged to seek help. Seeking help will enable an earlier recovery and reduce the likelihood of longer term issues developing.

AUDIT Alcohol Use

Score	Risk	Action
0 - 7	Low risk	This is the healthiest level of drinking, but check the additional risks below to make sure you are not at elevated levels of risk taking.
8- 15	Medium	Your drinking has the potential to cause harm, consider low risk drinking, and try the tips below for change.
16 and above	High risk	This level of risk indicates that you are likely damaging your health and wellbeing with your drinking. Seriously consider changing these behaviours. Talk to your doctor or health professional for additional advice.

Low risk guidelines

Low-risk drinking to reduce the lifetime risk of harm from disease or injury for healthy men and women is:

- on any day no more than 2 standard drinks.

Low risk drinking to reduce the harm of injury or death on any one occasion of drinking is:

- no more than 4 standard drinks on any one day (on a special occasion, not regular drinking) – these drinks should be spread out over several hours
- having regular alcohol-free days.

For women who are planning to become pregnant, or who are pregnant or breastfeeding, no alcohol is the safest option.

What is the anonymous research code at the end of the survey?

Anonymous Research Code (ARC)

Your ARC will allow us to compare your responses from this survey with your responses on past/future surveys, while still respecting your anonymity. By using the ARC, you will be the only one who knows what your anonymous code is.

Spaces 1 & 2: **First two** letters of your mother's maiden name (e.g., For Smith, you would write S / M)

Spaces 3 & 4: The numbers corresponding to the **month your mother** was born (e.g., For April, you would write 0 / 4)

Spaces 5 & 6: The **first two** letters of your father's first name (e.g., For John, you would write J / O)

e.g., S / M / 0 / 4 / J / O

Enter your ARC: / / / / /

 1 2 3 4 5 6

We invite you to select an anonymous research code. We plan to undertake a follow-up study in 18 months – 2 years time to monitor changes in our health over time, and the impact of events, support programmes and any new initiatives introduced. By selecting your own anonymous research code you still protect your anonymity while permitting your survey responses to be compared across the two surveys. So for example we can track the impact of risk and protective factors (such as levels of resilience, life stressors, healthy habits) on wellbeing over time.

Appendix E

Survey questions

The following questions ask about how you have been feeling during the last month (4 weeks). Please read each question carefully and then indicate the response that best describes how you have been feeling.						
		None of the time 1	A little of the time 2	Some of the time 3	Most of the time 4	All of the time 5
1.	How often did you feel tired for no good reason?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2.	How often did you feel nervous?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3.	How often did you feel so nervous that nothing could calm you down?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4.	How often did you feel hopeless?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5.	How often did you feel restless or fidgety?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6.	How often did you feel so restless that you could not sit still?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7.	How often did you feel depressed?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8.	How often did you feel that everything was an effort?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9.	How often did you feel so sad that nothing could cheer you up?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10.	How often did you feel worthless?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

<p>If you would like an indication about how you are going, add up the scores from items 1 – 10. The scores for each item is equal to the number in the header column you selected. (e.g. none of the time = 1, all of the time = 5) <i>Check out how you are going at the end of this survey.</i></p>	<p>Score = _____</p>
--	----------------------

DEPLOYMENT

1.	Have you ever been deployed on either an operational mission that would be qualifying service for the Operational Service Medal or other overseas activities (excluding courses or permanent established postings)?	No	Yes
		<input type="radio"/>	<input type="radio"/>

Section 6: Help Seeking

Every New Zealander can potentially suffer from problems with their mental health and wellbeing. Members of the NZDF are no exception to this. The next section ask about your previous experiences and current attitudes towards seeking help with mental health and wellbeing issues.

3.	Has there been a time in the last 12 months you felt you needed help?	No	Yes	
		<input type="radio"/>	<input type="radio"/>	
4.	If yes, did you seek help?	<input type="radio"/>	<input type="radio"/>	
7.	How likely is it you would seek help if you had a mental health problem in the near future?	Very unlikely		Very likely
		<input type="radio"/>	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>	<input type="radio"/>

5.	Whether or not I seek help for a mental health problem is up to me	Strongly disagree							Strongly agree
		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6.	For me to seek help for a mental health problem would be	Impossible							Possible
		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7.	How much control do you feel you have over whether you can seek help for a mental health problem in the future	No control							Complete control
		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Section 7: Demographic Characteristics

<p>The following information will be used to view differences between groups, such as rank groups or units. Feel free to skip questions that you are not comfortable answering or that you believe may compromise your anonymity.</p>										
1.	What is your gender?							Male	Female	Other
								<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2.	What is your age?									
	Less than 20 years	20- 24 years	25- 29 years	30 – 39 years	40 – 49 years	50 – 59 years	60 years and over	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6.	Which of the following best describes your status?							Regular Force	Reserve Force	Civilian
								<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7.	If you are military, what service do you belong to?							Navy	Army	Airforce
								<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10.	What is your current rank? <i>Please Mark one</i>									
<input type="radio"/> Pte-Cpl / Ord-LH / LAC-Cpl (E) <input type="radio"/> Sgt-WO / PO-WO / Sgt-WO (E) <input type="radio"/> Ocdt-Capt / Mid-LT / PO-FLTLT (E) <input type="radio"/> Maj / LTCDR / Sqndr (E) <input type="radio"/> LtCol/CDR/WG CDR (E) <input type="radio"/> Col (E) & Above <input type="radio"/> Not applicable										

Appendix F

Post survey information sheet

Thank you for completing this survey.

We appreciate you having taken the time to do this survey, and for your honesty in answering the range of questions asked of you. We acknowledge it has taken time away from doing other things but your contributions will help ensure we have an accurate picture of how we are going and respond to any areas of need. We'll let you know the results as soon as we can.

Over the page you can check out how you are going based on how you scored yourself in two areas in the survey.

A list of health support resources is provided on the next page. Please detach and retain these pages if you would like to.

Future research and Anonymous Research Code

Finally, we invite you to select an anonymous research code. It is proposed to undertake a follow-up study in 18 months – 2 years to monitor changes in the health of our people over time, and the impact of events, support programmes and new initiatives introduced across NZDF during this time.

You are invited to 'opt in' to a cohort group by identifying an Anonymous Research Code. This will allow anonymity to be protected while permitting your survey responses to be compared across the two surveys.

Anonymous Research Code (ARC)

Your ARC will allow us to compare your responses from this survey with your responses on past/future surveys, while still respecting your anonymity. By using the ARC, you will be the only one who knows what your anonymous code is.

Spaces 1 & 2: **First two** letters of your mother's maiden name (e.g., For Smith, you would write S / M)

Spaces 3 & 4: The numbers corresponding to the **month your mother** was born (e.g., For April, you would write 0 / 4)

Spaces 5 & 6: The **first two** letters of your father's first name (e.g., For John, you would write J / O)

e.g., S / M / 0 / 4 / J / O

Enter your ARC: / / / / /

 1 2 3 4 5 6

Paper copies of the survey should be returned via the internal mail system to:

**Health Check
Directorate of Health
Level 4 HQNZDF
Freyberg Building
Wellington**

How Are You Doing? (Please detach and retain this page)

Below you can find information about how you scored on two of the health screens used in this survey. Please use this information as a guide, no matter what your score, if you have any concerns about how you are going, seek help.

K10 Psychological Wellbeing (page 4)

Please use this information as a guide, no matter what your score, if you have any concerns about how you are going, seek help. Scores can sometimes be influenced by particular life events, such as a recent change in circumstances (e.g. financial pressures, birth of a child, relationship breakdown), or a busy work period. These feelings may only last a short period of time, however if you are experiencing signs of distress that have endured over the last four weeks you are strongly encouraged to seek help. Seeking help will enable an earlier recovery and reduce the likelihood of longer term issues developing.

10-14 Low

Your score falls into the low range. This means you're doing pretty well! It's important to remember that this result is not a diagnosis. If you feel down, sad, stressed or anxious, you might want to speak to someone (eg. doctor or other health professional).

15-19 Moderate

Your score falls into the moderate range. Some people who score in this range have mild depression and/or anxiety. We encourage you to see your doctor or health professional for a more personalised assessment.

20+ High

Your score falls into the high range. Many people who score in this range are experiencing depression and/or anxiety. We strongly recommend that you see your doctor or health professional for a more personalised assessment.

AUDIT Alcohol Use (Page17)

Score	Risk	Action
0 - 7	Low risk	This is the healthiest level of drinking, but check the additional risks below to make sure you are not at elevated levels of risk taking.
8- 15	Medium	Your drinking has the potential to cause harm, consider low risk drinking, and try the tips below for change.
16 and above	High risk	This level of risk indicates that you are likely damaging your health and wellbeing with your drinking. Seriously consider changing these behaviours. Talk to your doctor or health professional for additional advice.

Low risk guidelines

Low-risk drinking to reduce the lifetime risk of harm from disease or injury for healthy men and women is:

- on any day no more than 2 standard drinks.

Low risk drinking to reduce the harm of injury or death on any one occasion of drinking is:

- no more than 4 standard drinks on any one day (on a special occasion, not regular drinking) – these drinks should be spread out over several hours;
- having regular alcohol-free days.

For women who are planning to become pregnant, or who are pregnant or breastfeeding, no alcohol is the safest option.

Additional risks

Caution:

- Do you have a health condition made worse by alcohol i.e. diabetes, hepatitis, pancreatitis etc.?
- Do you have heart disease, high blood pressure or are gaining weight?
- Are you on medication?
- Do you suffer from depression, anxiety, or PTSD?
- Do you experience mood swings or irritability?
- Do you have trouble sleeping?
- Are you over 65?

Even if you are in the low risk category you may need to drink less if you are in one of the above groups that are more susceptible to the effects of alcohol. Talk to your doctor or other health professional.

SUPPORT (Please detach and retain this page)

If you find involvement in this survey distressing in any way you can talk to someone about it. If you have concerns about your mental health or that of someone else, there are a range of internal support options available including colleagues and leaders. Additionally, you can contact medical staff, chaplains, social workers, SAPRA and psychologists for military personnel, and EAP and external practitioners for civilians.

Alternatively there are a range of telephone helplines available:

+ **All Hours Support Line 0800 NZDF4U 0800 693 348**

A confidential telephone support service for NZDF members and their families

+ **VITAE 0508 664 981**

A confidential telephone support service for civilian members of the NZDF

+ **VANZ 0800 4838372**

A confidential helpline for veterans

+ **SAPRA 0800 693 324** – support for sexual assault

Lifeline 0800 543 354

Confidential counselling service for the general population

+ **Depression helpline 0800 111 757**

+ **Women's Refuge 0800 733 843** (24 hour crisis line for women dealing with violence in their life)

+ **Mensline 0800 636 754** (Confidential helpline for men) formatting line

+ **Alcohol and Drug helpline 0800 787 797**

+ **Youthline 0800376663 (or text 234)**

IN AN EMERGENCY CALL 111

More information about mental health and available support can be found on the following sites:

NZDF

NZDF **Force4Families** site <http://www.nzdf.dixs.mil.nz/families/default.htm> or nzdf.mil.nz/families/default.htm

NZDF **Mental Health** site <http://orgs/sites/nzdf-mh/default.aspx> (Intranet)

NZDF **Sexual Assault Support** <http://www.nzdf.mil.nz/personnel-records/sart/about/default.htm>

General Mental Health information, stories and tools:

www.mentalhealth.org.nz – Mental Health Foundation – information, stories, tools and support

www.TheLowdown.co.nz – information, stories, and interactive site designed for young people

www.moh.govt.nz/moh.nsf/indexmh useful self-help resources for recognising and managing stress (Ministry of Health)

www.hpa.org.nz -Health Promotion Agency – range of health information for NZers

www.livingwell.org.au - practical resources and support for men

www.depression.org.nz – information, resources and support

www.alac.org.nz – information, resources and support (drugs and alcohol)

www.beyondblue.org.au – anxiety and depression (Australian site)

www.skylight.org.nz - offers services to those facing tough times due to change, loss, trauma and grief - whatever the cause, and whatever their age (including for children)

www.likeminds.org.nz - aims to address stigma and discrimination sometimes associated with mental illness, contains resources, help options and stories from people with mental illness

www.livemoreawesome.com – information and support for those dealing with depression

www.veteransaffairs.mil.nz – site for veterans (NZ)

<http://at-ease.dva.gov.au> – site for veterans (Aus)

www.force4families.co.nz - information and resource site for family members (NZDF)

www.supportingfamilies.org.nz – support, info and resources for those supporting family members with mental illness

www.militaryonesource.mil – support for the military community (US)

www.sesamestreet.org/parents/topicsandactivities/toolkits/tlc# - resources to support military families including deployments, homecomings, grief, injuries, and self-expression (US)

www.sparx.org.nz – online tool for young people sponsored by MoH

<http://www.leva.co.nz/> - resources, tools, information and support for Pacifica people

<http://teraumatani.com/m%C4%81oriora> - information about Māori workforce training, education and capability-building solutions

General Health information, stories and tools:

<http://authoritynutrition.com/about> - evidence based healthy eating advice

<https://www.heartfoundation.org.nz/healthy-living>

Appendix G

NZDF rank groups

Rank Group	Acronyms and response options	Titles
Junior Non-commissioned Officers (Junior NCO)	Pte-Cpl Ord-LH LAC-Cpl	Private Corporal Ordinary Leading Hand Leading Air Crewman Lance Corporal Corporal
Senior Non-commissioned Officers (Senior NCO)	Sgt-WO PO-WO Sgt-WO	Sergeant Warrant Officer Petty Officer
Junior Officers	Ocdt-Capt Mid-LT PO-FLTLT	Officer Cadet Captain Midshipman Lieutenant Flight Lieutenant
Mid-rank Officers	Maj LTCDR Sqndr	Major Lieutenant Commander Squadron Leader
Senior and Executive Officers	LtCol CDR WG CDR and above.	Lieutenant Colonel Commander Wing Commander

Appendix H

Skewness and kurtosis table

Label	MEDI AN(St ruct)	MEDI AN(St ruct2)	MEDI AN(St ruct3)	MEDI AN(Sti g1)	MEDI AN(Sti g2)	MEDI AN(Sti g3)	MEDI AN(Sti g4)	MEDI AN(Sti g5)	MEDIA N(Stig6)	MEDIA N(Stig7)	MEDIA N(Stig8)	MEDIA N(Att1)	MEDIA N(Att2)
Valid	2626	2626	2626	2626	2626	2626	2626	2626	2626	2626	2626	2626	2626
Skewness	1.382	.970	.958	.362	.307	-.067	-.139	.953	-.083	.445	.348	-.774	-.777
Std. Error of Skewness	.048	.048	.048	.048	.048	.048	.048	.048	.048	.048	.048	.048	.048
Kurtosis	.923	-.172	-.026	-1.241	-1.237	-1.389	-1.308	.041	-1.302	-1.134	-1.144	.282	.367
Std. Error of Kurtosis	.096	.096	.096	.096	.096	.096	.096	.096	.096	.096	.096	.096	.096

MEDIA N(Att3)	MEDI AN(At t4)	MEDI AN(At t5)	DIAN(SNor m1)	MEDI AN(SN orm2)	MEDI AN(SN orm3)	MEDIA N(Contro l1)	MEDIA N(Contro l2)	MEDIA N(Contro l3)	Struct uralBa rriers	Strtig maBar riers	Attitu des	Social Norms	Contr ol	Intent ions
2626	2626	2626	2626	2626	2626	2626	2626	2626	2626	2626	2626	2626	2626	2626
-.581	-.374	-.423	-1.745	-.665	-.626	-1.423	-1.022	-1.237	.774	-.072	-.450	-.539	-.866	-.268
.048	.048	.048	.048	.048	.048	.048	.048	.048	.048	.048	.048	.048	.048	.048
-.191	-.169	-.355	3.369	.076	-.020	1.936	.663	1.472	-.365	-.956	-.119	.246	.370	-1.100
.096	.096	.096	.096	.096	.096	.096	.096	.096	.096	.096	.096	.096	.096	.096

Note: The lower table is a continuation of the upper table, with the equivalent labels.