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UNDECLARED MENTAL HEALTH DISORDERS AMONG CAF APPLICANTS: CAN APPLICANT MENTAL HEALTH SCREENING BE IMPROVED?

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Approximately 20% of Canadians experience a mental health disorder at some point in their lifetime.[1] There are many types of such disorders, each having a unique effect with respect to the types of symptoms experienced and the severity, chronicity, and resulting debilitation of those symptoms. For this reason, some mental health disorders may make serving in the military particularly challenging. It is the responsibility of the Canadian Armed Forces (CAF) Royal Canadian Medical Service to conduct mental health screening of all CAF applicants in order to assess their fitness to serve. To do so effectively, it is critical that applicants provide medical officers with their complete mental health history. Failure to do so can result in mentally unfit applicants being accepted which may lead to, among other negative effects, psychological decompensation (i.e. – an inability to function normally) when exposed to the stressors of a military operational environment. Moreover, depending on the nature of the decompensation and the military environment in which it occurs (e.g. – exercise versus combat operations), other members of the unit and even the mission itself could be adversely affected. Between July 2014 and June 2015, of the 559 mental health-related medical releases and disciplinary releases (where, in addition to the disciplinary issue, the member also had a mental health disorder), it is estimated that in 8% (46 personnel) the mental health disorder (primarily substance abuse) existed before enrollment, yet was undeclared in the enrollment medical.[2] Among the 559, the exact number of undeclared mental health disorders that existed prior to CAF enrollment and were not related to substance abuse has never been calculated, but experience indicates is very high.[3] It follows that the minimum number of personnel being released due to a pre-enrollment,

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[1] Canadian Mental Association, "Fast Facts about Mental Illness," last accessed 11 Apr 2016, http://www.cmental healtha.ca/media/fast-facts-about-mental-illness/

[2] LCol Annie Bouchard, Senior Staff Officer of Standards and Policy in the CAF Directorate of Medical Policy, telephone conversations, 22 March and 5 May 2016.

[3] The author of this paper, LCdr Wade Brockway, is a CAF General Duty Medical Officer specializing in Family and Emergency Medicine.

undeclared mental health disorder is likely much higher than 8%. These numbers are disturbing and merit significantly greater scrutiny.

This paper will demonstrate changing the way medical information is collected from CAF applicants could likely reduce the enrollment of those who are medically unfit due to mental health disorders. This paper will begin by contextualizing the challenges facing the CAF through an examination of relevant sections of the Canadian Human Rights Act (CHRA) and of how the principle of Universality of Service affects the recruitment process. Next, the reasons to have an effective mental health screening process as well as the rationale for not declaring mental health disorders will be reviewed. The current CAF applicant medical screening process will be described and compared to the processes used by the British and US militaries. The pros and cons of different applicant mental health screening options will be considered. Finally, recommendations will be made as to how mental health screening should be conducted by the CAF.

BACKGROUND

Canadian Human Rights Act

The CHRA declares that individuals cannot be discriminated against based on "race, national or ethnic origin, colour, religion, age, sex, sexual orientation, marital status, family status, disability or conviction for an offence for which a pardon has been granted..."[4] Therefore, CAF applicants with a history of a mental health disorder cannot be disqualified from military service simply by having been diagnosed with one at some point. They can only be denied enrollment if, after reviewing their specific situation, it is determined that they will not meet the Universality of Service principle as outlined in section 15(9) of the CHRA. Under this principle,

[4] Canadian Human Rights Act, Sub-section 2, last accessed 19 Apr 2016, http://laws-lois.justice.gc.ca/PDF/H-6.pdf

CAF members "must at all times and under any circumstances perform any functions that they may be required to perform."[5] DAOD 5023-0 further translates this to mean that members "are liable to perform general military duties and common defence and security duties, not just the duties of their military occupation or occupational specification."[6] Therefore, medical officers must assess applicants to determine if they can cope with the physical and mental stressors inherent in a military operational environment.

By way of illustration, in determining whether an applicant with a history of a mental health disorder is fit for military service, the clinician must first understand the specific type of disorder as outlined in the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (this manual "is the standard classification of mental disorders used by mental health professionals and contains a listing of diagnostic criteria for every psychiatric disorder."[7,8]). It must then be ascertained how the applicant has been affected in terms of the type, severity, and chronicity of the symptoms, the specific medication requirements, and the frequency of medical follow-up. For example, an applicant may be deemed medically unfit if the symptoms are ongoing, debilitating, or still recurring on a relatively frequent basis, if daily medications are required with a high risk of decompensation if doses are missed, or if frequent follow-up with a mental health professional is necessary. Essentially, each applicant's mental health profile is considered unique and assessed accordingly. Thus, it is possible that two applicants can have the same mental health disorder, but only one may actually be eligible for military service.

Prevalence of Mental Health Disorders that Pre-date CAF Enrollment

[5] Canadian Human Rights Act, Sub-section 15(9), last accessed 19 Apr 2016, http://laws-lois.justice.gc.ca/PDF/H-6.pdf

[6] National Defence and the Canadian Armed Forces, "DAOD 5023-0, Universality of Service," last accessed 12 Apr 2016, http://www.forces.gc.ca/en/about-policies-standards-defence-admin-orders-directives-5000/5023-0.page

[7] Psychiatry Online, "Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition," last accessed 11 Apr 2016, http://dsm.psychiatryonline.org/doi/book/10.1176/appi.books.9780890425596

[8] *Ibid*.

Although no one has ever determined the most common undeclared mental health disorders that pre-date CAF enrollment and are ultimately the cause of release, based on a review of medical files (of those who were released due to medical reasons or for disciplinary reasons where it was determined that the member also had a mental health disorder), it would appear that substance abuse / dependence and depression are the most prevalent.[9] This is not surprising since the most common mental health disorders among CAF Regular Force members in a 2013 study were alcohol abuse or dependence (31.9% lifetime risk) followed by depression (15.7% lifetime risk).[10]

Studies of Mental Health Releases

In determining an acceptable "release-rate" due to undeclared mental health disorders that pre-date enrollment, it would be ideal if one could compare rates among various Western militaries. Unfortunately, it does not appear that any such studies exist. Studies are available, however, that measure attrition rates and the cost (due to medical pensions) associated with service members with mental health disorders. Hoge et al. demonstrated high attrition rates among those hospitalized due to a mental health disorder: "The attrition rate within 6 months following hospitalization for a mental disorder was 45% compared with 11% following hospitalization for any other illness category."[11] Another significant finding in this study was the association between hospitalization for mental health disorders and medical releases when there was evidence that the medical condition which resulted in the release (not necessarily mental health related) existed prior to enrollment. The study showed that medical releases amongst those

[9] LCol Annie Bouchard, Senior Staff Officer of Standards and Policy in the CAF Directorate of Medical Policy, telephone conversation, 22 March and 5 May 2016.

[10] Statistics Canada, Mental health of the Canadian Armed Forces, last accessed 13 Apr 2016, http://www.statcan.gc.ca/pub/82-624-x/2014001/article/14121-eng.htm#a2.

[11] Charles Hoge et al. The Occupational Burden of Mental Disorders in the U.S. Military: Psychiatric Hospitalizations, Involuntary Separations, and Disability." *American Journal of Psychiatry* 162, no. 3 (2005): 585.

with mental health disorders were 8% and less than 1% in those with other conditions.[12] Another study also conducted by Hoge demonstrated that significantly higher attrition rates among those with mental health disorders also applied to those who received ambulatory mental health care (vice in-patient care).[13] In this study, 27% of military personnel who were first diagnosed with a mental health disorder as an outpatient left active duty within 6 months (of their first visit), compared with 9% of individuals after an initial ambulatory visit for a non-mental health-related visit.[14]

Garcia et al. studied mental health diagnoses and attrition in US air force recruits. They demonstrated that recruits with mental health disorders were 4.28 times more likely to release from the military as compared to recruits without a mental health disorder.[15]

In addition to the higher attrition rates among those with mental health disorders, another key finding of the Hoge study was the financial costs associated with these medical releases. Hoge found that 8% of military personnel hospitalized for mental disorders were released with a medical pension compared to 4% of those who were hospitalized for medical conditions not related to mental health.[16] Moreover, "the level of disability awarded was significantly higher among those with mental disorders compared with persons treated for other conditions."[17]

Reasons for an Effective Mental Health Screening Process

The preceding studies demonstrated that attrition rates are significantly higher among those who have a mental health disorder. As well, there is a significant financial cost to society,

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[12] *Ibid.* 588.

[13] Charles Hoge et al. Mental disorders among U.S. military personnel in the 1990s: association with high levels of health care utilization and early military attrition. *Am J Psychiatry* 2002; 159(9): 1580.

[14] *Ibid.*

[15] Shawn Garcia et al. Mental Health Diagnoses and Attrition in Air Force Recruits. *Military Medicine* 180, no. 4 (2015): 436.

[16] Charles Hoge et al. The Occupational Burden of Mental Disorders in the U.S. Military: Psychiatric Hospitalizations, Involuntary Separations, and Disability." *American Journal of Psychiatry* 162, no. 3 (2005): 588.

[17] *Ibid.*

with medical pensions being awarded more frequently and of a higher value. There are other reasons why it is more appropriate that some with a mental health disorder not be enrolled in the military and instead continue with or be referred for care in the civilian health care sector:

1. To protect the applicant from unwittingly subjecting themselves to an environment that could exacerbate a pre-existing mental health disorder: Depending on the nature of an applicant's mental health disorder, the chronic stress that is associated with performing in a military operational environment could result in a deterioration of their mental health.[18] This deterioration can be manifested in various ways, most notably and concerning would be suicide. Indeed, studies have shown that 60% of those who commit suicide have a history of depression.[19]

2. Canadians expect the CAF to accurately identify and disqualify those who would be at increased risk of psychological decompensation and potentially suicide when exposed to the stressors of a military operational environment before they accept them into the military: This is clearly illustrated by a recent *Globe and Mail* investigation showing that 45 soldiers had committed suicide after returning from Afghanistan.[20] The author stated that prevention is, in some cases, possible and that there are lessons to be learned from each death for both the military "which is responsible for delivering health care to soldiers; and for the Canadian government

[18] Up-to-Date Online, "Unipolar depression in adults: Epidemiology, pathogenesis, and neurobiology," last accessed 13 Apr 2016, http://www.uptodate.com/contents/unipolar-depression-in-adults-epidemiology-pathogenesis-and-neurobiology?source=machineLearning&search=depression+causes&selectedTitle=1%7E150&sectionRank=1&anchor=H7#H7.

[19] Statistics Canada, "Suicide rates: An overview," last accessed 13 Apr 2016, http://www.statcan.gc.ca/pub/82-624-x/2012001/article/11696-eng.htm.

[20] Renata D'Aliesio, "The Unremembered," The Globe and Mail, 23 Feb 2016, http://www.theglobeandmail.com/news/veterans/article26499878/

which sends men and women to war."[21] Thus, the CAF and Canadian government are held accountable by the public for the development and implementation of personnel recruitment policies that ensure only those physically and mentally fit are enrolled. Failure to do so can have a negative impact on the legitimacy of the CAF as an institution

3. To ensure the safety of others who may have to deploy with someone who has a higher probability of becoming mentally unstable: Some of the key features of depression include sadness, emotional distress, insomnia, fatigue, loss of energy, diminished ability to concentrate, and indecisiveness.[22] If the stressors of a military operational environment result in soldiers experiencing a recurrence of their depression, any one of these symptoms would degrade those soldiers' ability to perform optimally. This degradation of mental sharpness would not only affect the safety of the affected member, but depending on the scenario, could also negatively impact the performance and safety of the entire unit.

4. To reduce the burden on the CAF Medical Service: Most mental health disorders can be challenging to treat and therefore consume significant resources. CAF mental health specialists already care for large volumes of patients with disorders that developed as a result of military service, such as operational stress injuries. By eliminating applicants with mental health disorders who are deemed to be at high risk of breaching the Universality of Service, CAF mental health clinicians would have more time to devote to those who developed a disorder in the conduct of their military duties.

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[21] *Ibid.*

[22] S. Kennedy et al, Clinical guidelines for the management of major depressive disorder in adults. *Journal of Affective Disorders* 117 (2009) S7, http://www.canmat.org/resources/canmat%20depression%20guidelines%202009.pdf.

5. To reduce discord in the military workplace and administrative burden on the Chain of Command: People with certain types of mental health disorders, most notably borderline personality disorder, can be extraordinarily disruptive in the workplace. The main features of the disorder are instability in interpersonal relationships, unstable mood (such as excessive anger), suicidality, and self-injurious behaviour.[23] Borderline personality disorder is extremely resistant to treatment and common among the general population at 5.9%.[24,25] Anecdotally, those with the disorder have been known to cause tremendous disruption and personnel conflict within units which can lead to the requirement to conduct time-consuming, labour intensive formal investigations (such as harassment or summary investigations).

6. To protect CAF from potential embarrassment and shame: The behaviour resulting from some mental health disorders, most notably anti-social personality disorders, may not only impact a unit, but can compromise an operation, and in some cases the entire CAF can be affected.[26] This is best exemplified by the now disbanded Canadian Airborne Regiment where there was a longstanding history of anti-social behaviour that culminated with the brutal torture and murder of a teenage Somali during the 1993 peacekeeping mission in Somalia.[27] While the

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[23]Up-to-Date Online, "Borderline personality disorder: Epidemiology, clinical features, course, assessment, diagnosis, and differential diagnosis," last accessed 4 May 2016, http://www.uptodate.com/contents/borderline-personality-disorder-epidemiology-clinical-features-course

[24] *Ibid.*

[25] Up-to-Date Online, "Treatment of borderline personality disorder," last accessed 4 May 2016, http://www.uptodate.com/contents/treatment-of-borderline-personality-disorder?source=related_link#H118371841.

[26] Anti-social personality disorder "is characterized by behaviors constituting a pervasive pattern of disregard for and violation of the rights of others that begins in childhood or early adolescence and is manifested by disturbances in many areas of life, including family relations, schooling, work, military service, and marriage." Up-to-Date Online, "Antisocial personality disorder: Epidemiology…

[27] Letourneau, Gilles, Peter Desbarats, Robert C. Rutherford, and Commission of Inquiry into the Deployment of Canadian Forces to Somalia. *Dishonoured Legacy: The Lessons of the Somalia Affair, Report of the Commission of Inquiry into the Deployment of Canadian Forces to Somalia*. Ottawa: Minister of Public Works and Government Services Canada, 1997, 609.

Somalia Commission Report did not indicate if those involved were officially diagnosed as having an anti-social personality disorder, their behaviour was consistent with it. This tragic event led to the disbandment of the Airborne Regiment and cast tremendous shame on the entire CAF from which it took years to recover.

CAF, US ARMY, AND BRITISH ARMY MEDICAL SCREENING

In developing new policy, the CAF often looks at the practices and processes of other like-minded Western allies, such as the US and Britain. While there may be legal constraints preventing the CAF from adopting identical policy, variations of their policies may be both legal and effective within the CAF. Therefore, this next section will compare the medical screening processes currently employed in the CAF, the US Army, and the British Army.

CAF Medical Screening

CAF applicants complete a medical questionnaire followed by an interview and physical exam at a Canadian Forces Recruiting Centre by a CAF Health Service clinician (either a Medical Technician, usually at the Master Corporal or Sergeant rank level, or a Physician Assistant). The questionnaire consists of 39 screening questions which are designed to determine the applicant's overall state of health – both physical and mental. If the candidate responds positively to any of the questions, the specific issue will be further explored by the clinician who may also request that additional information be provided by the applicant's civilian Primary Care Provider. This may include copies of investigations such as imaging, biopsy, or lab reports and consult reports from medical or surgical specialists. The case will then be reviewed by a Recruiting Medical Officer who will determine if the applicant meets the Universality of Service criteria.

The applicant is scored in six categories referred to as "factors." These include vision (V), colour vision (CV), hearing (H), geographic (G), occupation (O), and air (A). The scores generally range from 1 to 6 with the number increasing as the degree of disability increases. For vision, colour vision, and hearing, the score is determined based on an objective test. The geographic factor is calculated based on the proximity that the applicant must be to medical care and the level of care that is required if there is an exacerbation of the medical condition.[28] The occupational factor is determined based on the applicant's ability to physically and mentally function in a military operational environment. Finally, the air factor "designates the medical fitness for flight duties for CAF Aircrew and the medical fitness for flight as a passenger for non-aircrew."[29]

If the applicant meets the standard in each of the six categories, then the common enrollment medical standard has been achieved and, by default, the applicant has met the Universality of Service criteria. The common enrollment medical standard, which is considered V4, CV3, H2, G2, O2, A5, is required to ensure that applicants remain eligible "for assignment to the widest range of military occupations" although a higher standard may be required for certain occupations (such as pilot).[30] From a mental health perspective, it is the G and O factors which are most relevant. If, upon reviewing the applicant's psychiatric history, the Medical Officer assigns a G3 or O3 or higher, the applicant would not be considered fit for military service.

US Army Medical Screening

[28] National Defence and the Canadian Armed Forces, "The Medical Category System," last accessed 12 Apr 2016, http://www.forces.gc.ca/en/about-policies-standards-medical-occupations/cf-medical-category-system.page

[29] *Ibid.*

[30] *Ibid.*

The US Army does not adhere to a Universality of Service principle when screening applicants. The US Army will disqualify applicants "by virtue of current diagnosis, or for which the candidate has a verified past medical history."[31] With respect to mood disorders (e.g. depression or bipolar disorder), the US Army Standards of Medical Fitness Regulation indicates that current mood disorders including major depression do not meet the standard.[32] Moreover, any history of mood disorders that required "outpatient care for longer than 6 months by a physician or other mental health professional or inpatient treatment in a hospital or residential facility does not meet the standard."[33] As well, any "history of symptoms consistent with a mood disorder of a repeated nature that impairs school, social, or work efficiency does not meet the standard."[34] With respect to substance abuse disorders, the Regulation states that a "current or history of alcohol dependence, drug dependence, alcohol abuse, or other drug abuse does not meet the standard." In summary, the US Army will disqualify applicants based simply on having a history of a mental health diagnosis. They do not attempt to predict the impact (if any) it will have on their ability to function in a military operational environment.

To determine an applicant's medical history, US Army clinicians follow a process very similar to that of the CAF.[35] Applicants must complete an extensive questionnaire where any positive declarations are further evaluated during the medical interview. If additional information is still required, applicants are responsible for obtaining documentation from their civilian care provider. A key difference between the US and CAF questionnaire is the number of yes/no mental health-related questions, with the US having 19 compared to the CAF having only 1.[36]

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[31] US Army Regulation 40–501, Standards of Medical Fitness, section 2-2e.
[32] US Army Regulation 40–501, Standards of Medical Fitness, section 2-27.
[33] *Ibid.*
[34] *Ibid.*
[35] Telecon with US Army Recruiter, 25 Apr 2016, phone number: 310-216-4433.
[36] DD Form 2807-2, Accessions Medical Pre-Screen Form.

British Army Medical Screening

The British Army takes a very similar approach to medical standards as the US Army in that certain medical conditions are automatically disqualifying.[37] As an illustration, applicants are deemed "permanently unsuitable" if they have any ever been diagnosed with certain mental health disorders.[38] Examples include ongoing psychiatric illness, depressive disorders with or without treatment of any form, schizophrenia, more than one episode of deliberate self-harm, post-traumatic stress disorder, and alcohol, drug, or substance dependence.

To determine an applicant's medical history, the British Army requires that an on-line medical declaration questionnaire be completed. In addition, there is a requirement for the applicant's civilian care provider to complete a form summarizing the applicant's full medical history.[39,40]

REASONS MENTAL HEALTH DISORDERS ARE NOT DECLARED

Comprehensive studies addressing the reasons some military applicants do not declare mental health disorders during the mental health screening process do not exist. Nevertheless, it is likely that the majority of reasons fall into one of four categories: (1) applicants purposely do not disclose to avoid being disqualified from a potential career opportunity, (2) applicants may feel that because their mental health issue has resolved (e.g. through treatment), it will not recur and thus not interfere with their ability to function in a military environment, (3) some may not

[37] Medical Criteria British Army, last accessed 19 Apr 2016, http://www.army.mod.uk/documents/general/bgn_ri15_medical_screening.pdf

[38] *Ibid.*

[39] Telcon with British Army Recruiter, 26 Apr 2016, phone number: 011-44-345-600-8080

[40] British Army, "Joining the Army," last accessed 26 Apr 2016, http://www.army.mod.uk/join/The-joining-process.aspx.

be aware they have a mental health disorder, (4) finally, some applicants may simply forget about past mental health issues and, therefore, fail to report.

Purposely do not disclose

In 2004, French et al. sought to identify "potential barriers to the effectiveness of a military health screening program based on the beliefs of British Service personnel."[41] One of their findings was that study participants would not honestly answer some of the screening questions "due to fears that the process could jeopardize career prospects."[42] These findings can likely be extrapolated to military applicants as it is indeed somewhat intuitive that some will be dishonest in answering the mental health screening questionnaire if they know that an accurate response will result in disqualification.

Mental Health Issue Has Resolved

It is possible that many recruits are not declaring a past history of a mental health disorder as they erroneously and honestly believe that it will not recur. While this may indeed be true in some cases, it is important for new applicants to fully disclose their mental health history such that military clinicians can assess the chances of recurrence through an evidence-based approach (i.e. reviewing evidence from medical studies to determine risk of recurrence). For example, it has been demonstrated that 72% of individuals who have experienced one episode of depression will have a recurrence.[43] Therefore, while a history of depression does not automatically equate to being unfit, it clearly indicates that the risk of recurrence must be assessed by a CAF Medical Officer.

Unaware of the Disorder

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[41] C. French et al. Screening for physical and psychological illness in the British Armed Forces: II: Barriers to screening - learning from the opinions of Service personnel, *Journal of Medical Screening* 11.3 (2004): 153.

[42] *Ibid.*154.

[43] R.C. Kessler et al. Prevalence, correlates, and course of minor depression and major depression in the National Comorbidity Survey. *Journal of Affective Disorders* 1997; 45:19.

Some may simply be unaware that they have a mental health disorder. If symptoms are generally mild and thus do not impair the individual's ability to function, those symptoms may be regarded as normal. It may not be until the condition worsens that there is a realization that the cause may be due to a mental health disorder.

APPLICANT MEDICAL SCREENING OPTIONS

For the CAF to move forward with a new policy, it is critical that it only consider options that will not contravene Canada's Charter of Rights and Freedoms. As a result, the options that follow have been reviewed in that light by a CAF Health Service lawyer.

Option 1 - Status Quo

Under this option, the CAF would continue to rely on applicants to self-declare mental health disorders. There are a number of advantages to this approach:

1. The medical screening is relatively simple and quick to administer. If there are no significant declarations or physical exam findings, the medical assessment can be fully administered by a CAF clinician with no requirement to involve outside medical agencies such as the applicant's civilian care provider. Therefore, for most applicants, the recruiting process is not delayed as a result of the medical screening component.
2. Amplifying information can be obtained from the civilian care provider as required.
3. The applicant must sign a declaration indicating that the information being provided is complete and correct. Furthermore, there is a section on the form outlining the ramifications if medical conditions are not disclosed.

4. Queen's Regulations and Order 15.01 provides a legal mechanism for releasing members who make fraudulent statements in documents signed on enrolment.[44]

The main disadvantage of this approach is there is no mechanism in place to determine whether an applicant has not declared a medical condition.

Option 2 – Obtain Full Medical History from Civilian Care Providers

Under this option, applicants would have their civilian care provider complete a CAF medical history form. The remainder of the medical process would remain unchanged in that applicants would still have to complete the medical questionnaire followed by the interview and physical exam. This approach is currently used by both the British Army and the CAF Outside of Canada (OUTCAN) Medical Screening Section (when screening CAF dependents who will be accompanying members on OUTCAN postings). This process was adopted for OUTCANs as there were a relatively high number of dependents with undeclared medical conditions who, after arriving at the OUTCAN posting location, required access to specialized medical services (which were often not available) or had to be medically repatriated (due to the pre-existing condition).

Beyond the advantages noted in option 1, with the additional medical review by the civilian care provider, there is a much greater probability of obtaining an accurate medical history.

Nonetheless, there are some disadvantages to this approach:

1. It would create a delay in processing new recruits as it can take several weeks to get an appointment with their care provider.

2. This added step could have the unintended consequence of reducing the number of medically fit recruits who apply simply due to the inconvenience of now having to obtain

[44] Queen's Regulations and Orders 15.01, Release Of Officers And Non-Commissioned Members, last accessed 19 Apr 2016, http://www.forces.gc.ca/en/about-policies-standards-queens-regulations-orders-vol-01/ch-15.page.

documentation from their care provider. This would likely be most prevalent among those with only a borderline interest in enrolling (which may be a significant percentage of applicants).

3. It is unlikely that all applicants would have a care provider; moreover, even among those who do, the care provider may not be aware of all of their medical issues as they were never divulged by the patient (e.g. substance abuse).

4. There would be an added cost as this service would not be covered by provincial health care plans (such as the Ontario Health Insurance Plan).

Option 3 – Obtain Diagnosis Codes from Provincial Insurance Agencies

Under this option, in addition to the CAF medical questionnaire, International Classification of Diseases (ICD) codes would be obtained from Provincial Insurance Agencies to determine the medical conditions for which the applicant has been treated. The ICD "is the standard diagnostic tool for epidemiology, health management and clinical purposes. It is used to monitor the incidence and prevalence of diseases and other health problems" in a country or population.[45] There is a specific ICD code associated with every diagnosis or symptom. As an illustration, the ICD code for a "severe depressive episode without psychotic symptoms" is F32.2.[46] Generally, every time a patient is seen by a health care provider, one or more ICD codes are assigned to the encounter. The care provider then submits the patient's name and applicable ICD codes to the Provincial Insurance Agency to receive payment for services rendered.

Advantages of this option are the same as option 1. Similar to option 2, this approach would help ensure that the applicant's medical history is more reflective of reality. However, in addition to the disadvantages outlined in option 2, there are other significant drawbacks to this

[45] World Health Organization, International Classification of Diseases (ICD), last accessed 19 Apr 2016, http://www.who.int/classifications/icd/en/

[46] World Health Organization, International Statistical Classification of Diseases and Related Health Problems 10th Revision, last accessed 19 Apr 2016, http://apps.who.int/classifications/icd10/browse/2016/en

approach. ICD codes would be unhelpful in circumstances when the care provider is unsure of the specific diagnosis and must therefore resort to using ICD codes that simply describe the symptoms for which the patient is presenting. For example, R45.2 is unhappiness and R45.4 is irritability and anger.[47] These symptom-specific ICD codes are very commonly used, especially in an Emergency Department where the exact diagnosis is often unclear. Additionally, to obtain the information from the Provincial Insurance Agencies, formal consent would have to be obtained from applicants and a formalized record-retrieval process established with each of the 13 Agencies (ten provinces and three territories). Moreover, for those applicants who have lived in multiple provinces, requests would have to be made to multiple Agencies. Therefore, in addition to being time intensive, it could be administratively burdensome to obtain the records and they may only be of limited use.

Option 4 – Enhanced Enrollment Mental Health Screening

The current enrollment medical screening questionnaire only directly addresses mental health in two sections: (1) under the yes/no portion of the questionnaire, the question is asked "have you ever suffered from nervous trouble or breakdowns (depression, anxiety, post-traumatic stress disorder)." (2) The clinician also takes a history on drug and alcohol use.

Under this option, as is the practice in the US Army, more extensive mental health screening questions are posed in an effort to potentially identify those who may be medically unfit for military service. This enhanced screening would serve multiple purposes: (1) to identify those who are experiencing symptoms of a mental health disorder at the time of the interview; (2) to identify those who have a past medical history of a mental health disorder; and (3) to predict those who have a high probability of acquiring a mental health disorder, (4) to broaden the number of mental health disorders being screened.

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[47] *Ibid.*

The idea of applicant mental health screening was recommended in a 2014 Standing Committee on National Defence Report. Specifically, the committee advised "that the Government of Canada conduct rigorous mental health screenings during the recruitment period of a Canadian Armed Forces member."[48] Unfortunately, it was also acknowledged in the report that "it is not currently possible to determine a person's mental resilience or susceptibility to mental illness as a result of trauma, though research on these issues is ongoing."[49] Indeed, after reviewing psychological screening tests that were conducted in World Wars 1 and 2, the Korean War, post-1953, and the Bosnian War, Jones et al. concluded that "no instrument has yet been identified which can accurately assess psychological vulnerability."[50] The false positive and false negative results were generally all found to be unacceptably high. In fact, had the tests been used, many soldiers who would have performed well would have been deemed mentally unfit for military service. In a study conducted by Egan et al., had the US military adhered to the results of a psychiatric screening test, 1,992,950 men would have been "unnecessarily rejected for military service on psychiatric grounds during World War II."[51]

Therefore, based on the inaccuracy of current *predictive* psychological screening test, denying someone enrollment in the military because of a disorder that they may acquire would be considered an infringement on their human rights. Indeed, as previously stated, members can only be denied enrollment on medical grounds if they fail to meet Universality of Service criteria.

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[48] Report of the Standing Committee on National Defence, Caring for Canada's Ill and Injured Military Personnel: 9, last accessed 20 Apr 2016, http://www.parl.gc.ca/content/hoc/Committee/412/NDDN/Reports/RP6475808/nddnrp04/nddnrp04-e.pdf

[49] Report of the Standing Committee on National Defence, Caring for Canada's Ill...

[50] E. Jones, K.C. Hyams, and S. Wessely, Screening for vulnerability to psychological disorders in the military: an historical survey, *J Med Screen* 2003;10:40.

[51] *Ibid.* 42.

However, there would be benefit to additional yes/no mental health-related questions being added to the questionnaire. Rather than being predictive in nature, they would serve to increase the number of mental health disorders that are being screened for, with a greater emphasis on personality disorders (such as borderline and anti-social personality disorders), suicide attempts, and traumatic personal histories (such as child abuse) which may increase the chances of the applicant having an undiagnosed mental health disorder at the time of the application. Additional screening questions would also help an applicant recognize and recall current or past symptoms. While a positive response to any of these questions may not result in disqualification from military service, it would trigger the recruit clinician to pose additional questions to determine whether there could be an impact on the applicant's mental fitness.

Recommendations

It is recommended that CAF modify the current screening questionnaire by adding more mental health related questions (as in the US questionnaire) in order to cover a broader array of mental health disorders. Among those who are simply forgetting to declare past mental health problems, or not doing so as they consider the issue is fully resolved, or are legitimately unaware that they have a mental health disorder (such as the aforementioned personality disorders), this additional emphasis may be the impetus required to obtain a full and accurate declaration. To achieve greater certainty that adopting more wholesale changes (such as those presented in option 2) to the screening process are worth the cost, administrative difficulties, and potential negative effect on recruiting, it is necessary to better determine the full extent of the problem. Indeed, the 8% of releases that were directly related to substance abuse disorders that pre-dated military service is just an estimate and does not include non-substance abuse mental health disorders. Therefore, over the course of a 1-2 year period, the medical records of those who are

released for medical and disciplinary reasons (where, in addition to the disciplinary issue, there is also a mental health disorder) should be reviewed to determine whether there is any evidence that the mental health disorder resulting in the release was present prior to enrollment and undeclared. It would also be useful to determine the qualitative impact on the affected units as a result of these undeclared mental health disorders. This could be achieved by polling Commanding Officers. Indeed, while the absolute number of mental health disorders pre-dating enrollment may be small and thus interpreted as insignificant, the administrative and / or operational impact on the member's unit could be orders of greater magnitude.

If it is ultimately assessed that more rigorous mental health screening is required, option 2 should be implemented and applicants should be required to have a medical history form completed by their civilian care provider. These records would likely be more accurate, less ambiguous, and easier to access than the ICD codes from Provincial Insurance Agencies. Prior to adopting option 2, however, an analysis should be conducted to determine the additional cost associated with having civilian care providers provide this service. It would also be necessary to involve Chief of Military Personnel to discuss the potential for delays in the recruitment process (as applicants await for appointments with their care providers), and the potential for a reduction in the number of qualified recruits (due to the perceived administrative burden of the medical screening process). As well, a legal staff knowledgeable it the area of employment should be consulted to ensure that changes comply with the Charter of Rights and Freedoms.

CONCLUSION

Given that the true extent of the problem of undeclared mental health disorders resulting in release is still unclear, it is premature to institute wholesale changes to the medical screening process. A relatively simple change, however, that could be implemented in the short term is the

addition of more mental health questions to the screening questionnaire. If, after reviewing the files of those who have been medically released, it is determined that the number of undeclared mental health disorders are unacceptably high or they are causing excessive hardship within units due to the administrative burden or operational impact, more far-reaching changes should be considered. This could include a requirement to have medical histories provided by the applicants' civilian care providers. While it is unlikely that these modifications would completely resolve the problem of undeclared mental health disorders, they could lessen the problem. There would also be other benefits, including budgetary savings as fewer replacement personnel would have to be trained, a reduction in medical pensions, fewer suicides, and the modifications could even serve to avoid another tragic and shameful incident like that which occurred in Somalia. All of this would serve to maintain the public confidence that the CAF enjoys today.

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