# PREVALENCE AND DETERMINANTS OF ANTIDEPRESSANT USE AMONG CANADIAN FORCES MEMBERS EXPERIENCING MAJOR DEPRESSIVE EPISODES

Chiranjeev Sanyal[1], Mark Asbridge[1], Steve Kisely[2], Ingrid Sketris[1], Pantelis Andreou[1]

[1]Dalhousie University, Halifax, Nova Scotia, Canada, [2]University of Queensland, Brisbane, Queensland, Australia

**Corresponding Author:** _c.sanyal@dal.ca_

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## ABSTRACT

### Background
Major depression affects a significant proportion of individuals including those serving in the military; but, there is less information on the pharmacological treatment they receive.

### Objectives
We assessed the prevalence and determinants of past year antidepressant use among regular and reservist members of the Canadian Forces who have experienced major depressive episodes in the past 12 months.

### Methods
The 2002 Canadian Community Health Survey Cycle 1.2 Canadian Forces Supplement (CCHS1.2-CFS) surveyed 8441 active members of the Canadian Forces. Individuals who reported experiencing major depressive episodes (MDE) in the past 12 months, according to the definition of the Diagnostic and Statistical Manual of Mental Disorders, 4th Edition (DSM-IV), were examined with data from the CCHS1.2-CFS. Regression models assessed sociodemographic determinants and service factors of antidepressant use employing appropriate weights and bootstrapping variance estimation methods.

### Results
Overall, 7.4% of members of the Canadian Forces experienced MDE in the past 12 months, and of those only 32.1% reported to have taken an antidepressant. Significant predictors of antidepressant use were marital status i.e. married/common law (OR=3.6, 95%CI 2.0-6.4), widowed/separated/divorced (OR=4.0, 95%CI 2.0-8.4), and being in both combat and peacekeeping missions (OR=2.2, 95%CI 1.3-3.8).

### Conclusion
Findings highlight the characteristics that predispose individuals in the Canadian Forces with MDE to use antidepressant, and serves as a baseline to determine the effectiveness of ongoing programs for diagnosis, treatment and prevention of major depression. Continued research involving the Canadian Forces will foster better understanding of mental health outcomes and effective interventions to improve care.

**Key Words**: _Cross-sectional study; antidepressant; major depressive episodes; drug utilization; Canadian Forces_

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Epidemiologic studies have documented a range of psychiatric disorders among personnel serving in the military such as, posttraumatic stress disorder (PTSD), general anxiety disorder, panic disorder, and suicidal ideation,[1-11] with major depression being the most prevalent mental health disorder.[1,3,6,10,11] Recent Canadian studies by Sareen and colleagues provided a detailed examination of the prevalence of a number of mental health conditions among Canadian Forces personnel.[10,11] They reported that 6.9% of individuals serving in combat and

peacekeeping missions reported an episode of major depression in the past 12 months, with higher rates among female personnel.[10,11] This compares to a rate of 4.8% in the Canadian general population.[12] Moreover, they found that the risk for major depression was strongly related to participation in combat and peacekeeping operations.[10,11]

While Sareen and colleagues[10,11] explored the perceived need for treatment for psychiatric disorders, including the use of medication, estimates of the use of pharmacotherapy are largely absent from the research literature. This includes estimates of antidepressant use among members of the Canadian Forces for the treatment of major depression. Pharmacotherapy with antidepressant is recommended for both acute and long term treatment of major depression.[13]

The lone study of antidepressant use among Canadian Forces personnel was based on a retrospective chart review of pharmacy dispensing records at seven Canadian Forces bases.[14] They identified that the majority (57.6%) of prescriptions of antidepressant dispensed to members of the Canadian Forces were to treat depression.[14] However, this study did not assess the prevalence and determinants of antidepressant use among Canadian Forces personnel who have experienced major depressive episodes (MDE) and, unlike the work of Sareen and colleagues, this study was not based on a representative sample of Canadian Forces personnel, but, rather, chart reviews. This gap in the literature has the potential to limit policy initiatives aimed at improving access and delivery of mental health care to active members of the military.[6] Given these limitations in the literature, the aim of the current study is to extend our understanding of major depression and its treatment with antidepressant among members of the military. Our key question is what is the prevalence and determinants of antidepressant use among regular and reservist members of the Canadian Forces who reported episodes of major depression in the past 12 months?

## METHODS

*Survey*
We conducted secondary data analysis of all members of the Canadian Forces surveyed in the Canadian Community Health Survey Cycle 1.2,

Mental Health and Well-being - Canadian Forces Supplement (CCHS 1.2-CFS).[15] This survey was conducted by Statistics Canada on request from the Canadian Forces Health Services to determine mental health status of Canadian Forces personnel and inform delivery of appropriate mental health services. CCHS 1.2-CFS collected data on selected mental health disorders including mood disorders, anxiety disorders, and mental health services utilization, including medication use, by active personnel aged 16 years and above in the Canadian Forces. Details on the construction of the survey can be found elsewhere.[15]

This cross-sectional survey was conducted by Statistics Canada from May 2002 to December 2002. Interviews were conducted face-to-face employing computer assisted interviewing methodology during regular hours of duty for the regular forces in private rooms on an army base and during evening parade for reservists. The response rate for the survey was 79.5% (n= 5,155) among regular force personnel and 83.5% (n= 3,286) among reservists. Quality control measures minimized errors in the data collection process, including interviewer training and use of computer aided interview applications. Further, measures were taken to minimize errors from total non responses by adjusting the weight of the respondents to offset for non respondents.[15]

*Measurement of Mental Health Disorder and Medication Use*
The CCHS 1.2-CFS employed the Canadian adaptation of the World Mental Health – Composite International Diagnostic Interview (WMH-CIDI), a comprehensive, fully structured instrument administered by trained interviewers. The lifetime and past year mental health profiles of CCHS 1.2-CFS respondents were generated based on the definitions and criteria of the Diagnostic and Statistical Manual of Mental Disorders, 4th Edition (DSM-IV). Alcohol dependence was an exception which was measured in CCHS 1.2-CFS by CIDI-Short Form (CIDI-SF), which generates profiles based on DSM-IIIR criteria.[15]

CCHS 1.2-CFS recorded antidepressant use by respondents using a self report question: "In the past 12 months, that is, from date one year ago to yesterday, did you take anti-depressants (such as Prozac, Paxil or Effexor)?".[16] This question

provided examples of antidepressants (i.e. Prozac, Paxil or Effexor), which could be used by the interviewer to aid in the reporting of antidepressant use by the respondents.

### Sociodemographic Determinants and Service Factors

A number of measures were included as potential determinants of antidepressant use in the past 12 months. Determinants were collapsed into broad categories when required (i.e. age, marital status and education attainment) to have enough sample size for the analysis. These included: sex (coded either 'male' or female'); age (recoded to '16 to 39 years of age', and '40 and more years of age'); marital status (coded as 'married/common law', 'widowed/separated/divorced', and 'single, never married'); educational attainment (coded as 'graduation from high school and below', and 'graduation from high school and above'); household income (coded into '<$5000-≤$49000', '>$49000-≤$79000', and '>$79000'); region (coded as 'Atlantic', 'Central', 'Quebec' and 'Western'); environment of service (coded as 'Air', 'Army' and 'Navy'); rank of service [coded as 'junior Non Commissioned Member (NCM)', 'senior NCM', 'officer']; and type of service (coded as 'combat missions only', 'peacekeeping missions only', 'both combat and peacekeeping missions' and 'neither combat or peacekeeping missions').

### Analyses

Diagnostic algorithms identified regular and reservist members of the Canadian Forces with past 12 months MDE based on the definitions and criteria of DSM-IV. Analyses were carried out on Canadian Forces members in two steps. First, the weighted percentage of (i) the prevalence of MDE in the past 12 months was determined followed by (ii) the use of antidepressant in the past 12 months among individuals with MDE. Second, two sets of logistic regression models were constructed, which regressed (i) MDE in the past 12-months and (ii) use of antidepressant in the past 12 months among individuals with MDE, on key determinants drawn from socio-demographic and service level characteristics. We initially constructed unadjusted models. We then included covariates with p ≤0.2 in the adjusted model. Only covariates from adjusted models with a p ≤0.2 were included in the final adjusted model, reflecting the best fit with fewest parameters.

The ratios and the logistic regression models employed weights provided by Statistics Canada, which enhanced the generalizability of the study findings to the target population. We employed bootstrapping methods to the estimation of ratios and logistic regression models, which accounts for the complex design issues arising from the sampling technique adopted by CCHS 1.2-CFS. Statistical significance was determined by the p-value (≤0.05) associated with the Wald statistics. Data analysis was carried out in SAS 9.1.3.[17] This study was approved by the Health Sciences Human Research Ethics Board, Dalhousie University.

### RESULTS

Table 1 summarizes the trends in the prevalence of past 12 months MDE and the past 12 month use of antidepressants by members of the Canadian Forces with MDE. The results revealed that 7.4% [95%CI:6.7-8.1; *unweighted* n=563] of respondents have experienced MDE in the past 12 months, and of those, 32.1% [95%CI:27.5-36.7; *unweighted* n=184] reported to have taken an antidepressant. There appears to be considerable variation in the prevalence of antidepressant use among population subgroups in the Canadian Forces.

**TABLE 1** Frequency and prevalence of past 12 months major depressive episodes (MDE) and antidepressant use among members of the Canadian Forces.

| Characteristics | Past year MDE | | Antidepressant use | |
|---|---|---|---|---|
| | Weighted % | Bootstrap 95%CI | Weighted % | Bootstrap 95%CI |
| | 7.4 | 6.7-8.1 | 32.1 | 27.5-36.7 |
| **Sex** | | | | |
| Male | 6.8 | 6.0-7.6 | 30.2 | 24.7-35.81 |
| Female | 10.8 | 9.3-12.3 | 39.1 | 33.0-45.2 |
| **Age, y** | | | | |
| 16-39 | 7.6 | 6.7-8.4 | 31.1 | 25.4-36.8 |
| 40+ | 7.0 | 5.8-8.1 | 34.8 | 26.8-42.7 |
| **Marital Status** | | | | |
| Single | 6.1 | 4.9-7.3 | 13.3 | 7.3-19.3 |
| Married/common law | 6.6 | 5.8-7.5 | 37.9 | 31.6-44.2 |
| Widowed/separated/divorced | 20.5 | 15.8-25.2 | 39.5 | 28.8-50.2 |
| **Educational Attainment** | | | | |
| Graduate and above | 6.4 | 5.5-7.3 | 32.0 | 26.0-38.3 |
| Undergraduate and below | 8.3 | 7.2-9.4 | 32.1 | 25.6-38.4 |
| **Household income, Can $** | | | | |
| <5000 - ≤49000 | 8.3 | 6.5-10.1 | 25.6 | 17.7-33.5 |
| >49000 - ≤79000 | 7.6 | 6.4-8.9 | 35.9 | 28.1-43.6 |
| >79000 | 6.4 | 5.4-7.4 | 33.7 | 26.4-40.9 |
| **Region** | | | | |
| Central | 8.0 | 6.7-9.3 | 27.8 | 21.0-34.7 |
| Atlantic | 7.8 | 6.3-9.3 | 32.3 | 23.0-41.7 |
| Quebec | 8.7 | 6.9-10.6 | 28.9 | 18.6-39.1 |
| Western | 5.5 | 4.3-6.7 | 42.3 | 31.7-53.0 |
| **Environment of service** | | | | |
| Navy | 7.0 | 5.4-8.6 | 29.6 | 19.7-39.5 |
| Army | 7.5 | 6.5-8.6 | 34.1 | 24.6-40.6 |
| Air | 7.6 | 6.2-8.9 | 29.8 | 21.8-37.8 |
| **Rank of service** | | | | |
| Officer | 4.9 | 3.8-6.0 | 21.9 | 14.7-29.0 |
| Junior NCM | 8.3 | 7.2-9.4 | 34.5 | 28.3-40.7 |
| Senior NCM | 7.1 | 5.9-8.3 | 30.7 | 22.7-38.7 |
| **Type of service** | | | | |
| Combat missions only | 11.4 | 8.8-13.9 | NR | NR |
| Peacekeeping missions only | 9.1 | 7.6-10.5 | 32.6 | 23.0-42.2 |
| Both combat and peacekeeping missions | 12.1 | 9.1-15.1 | 48.1 | 37.2-59.1 |
| Neither combat or peacekeeping missions | 6.5 | 7.3-9.9 | 27.8 | 21.4-34.2 |

NR: Estimates not reported because of small cell size (n<15)

**TABLE 2** Key determinants of past 12 months major depressive episodes among members of the Canadian Forces.

| Independent variables | Unadjusted Model | | | Adjusted Model | | | Parsimonious Model | | |
|---|---|---|---|---|---|---|---|---|---|
| | OR | 95%CI* | *P*-value | OR | 95%CI* | *P*-value | OR | 95%CI* | *P*-value |
| **Sex** | | | | | | | | | |
| Male (reference) | 1.0 | … | … | … | … | … | … | … | … |
| Female | 1.7 | 1.5-1.9 | <0.001 | 1.8 | 1.5-2.1 | <0.001 | 1.8 | 1.5-2.0 | <0.001 |
| **Age, y** | | | | | | | | | |
| 16-39 (reference) | 1.0 | … | … | … | … | … | … | … | … |
| 40+ | 1.2 | 1.0-1.3 | 0.02 | 1.2 | 0.9-1.4 | 0.05 | 1.2 | 0.9-1.4 | 0.06 |
| **Marital Status** | | | | | | | | | |
| Single (reference) | 1.0 | … | … | … | … | … | … | … | … |
| Married/common law | 1.1 | 0.9-1.3 | 0.48 | 1.0 | 0.8-1.3 | 0.71 | 1.0 | 0.8-1.2 | 0.84 |
| Widowed/separated/divorced | 3.0 | 2.4-3.8 | <0.001 | 2.7 | 2.1-3.4 | <0.001 | 2.7 | 2.1-3.6 | <0.001 |
| **Educational Attainment** | | | | | | | | | |
| Graduate and above (reference) | 1.0 | … | … | … | … | … | … | … | … |
| Undergraduate and below | 1.1 | 0.9-1.2 | 0.30 | … | … | … | … | … | … |
| **Household Income, Can $** | | | | | | | | | |
| <5000 - ≤49000 | 1.2 | 0.9-1.4 | 0.11 | 1.1 | 0.9-1.4 | 0.44 | … | … | … |
| >49000 - ≤79000 | 1.1 | 0.9-1.3 | 0.11 | 1.0 | 0.9-1.2 | 0..61 | … | … | … |
| >79000 (reference) | 1.0 | … | … | … | … | … | … | … | … |
| **Region** | | | | | | | | | |
| Central | 1.2 | 1.0-1.5 | 0.01 | 1.3 | 1.1-1.6 | 0.006 | 1.3 | 1.1-1.6 | 0.006 |
| Atlantic | 1.2 | 1.0-1.5 | 0.05 | 1.3 | 1.0-1.6 | 0.02 | 1.3 | 1.0-1.6 | 0..02 |
| Quebec | 1.6 | 1.3-2.0 | <0.001 | 1.7 | 1.4-2.1 | <0.001 | 1.7 | 1.4-2.1 | <0.001 |
| Western (reference) | 1.0 | … | … | … | … | … | … | … | … |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Environment of service** | | | | | | | | | |
| Navy (reference) | 1.0 | … | … | … | … | … | … | … | … |
| Army | 1.0 | 0.8-1.2 | 0.83 | … | … | … | … | … | … |
| Air | 1.1 | 0.9-1.3 | 0.54 | … | … | … | … | … | … |
| **Rank of service** | | | | | | | | | |
| Officer (reference) | 1.0 | … | … | … | … | … | … | … | … |
| Junior NCM | 1.3 | 1.1-1.6 | <0.001 | 1.3 | 1.1-1.5 | 0.01 | 1.3 | 1.1-1.6 | 0.004 |
| Senior NCM | 1.3 | 1.1-1.6 | <0.001 | 1.2 | 1.0-1.4 | 0.08 | 1.2 | 1.0-1.4 | 0.06 |
| **Type of service** | | | | | | | | | |
| Combat missions only | 1.1 | 1.3-1.9 | 0.14 | 1.2 | 1.0 - 1.4 | 0.03 | 1.2 | 1.0-1.4 | 0.03 |
| Peacekeeping missions only | 1.1 | 0.7-1.6 | 0.73 | 1.1 | 0.7 - 1.6 | 0.68 | 1.1 | 0.7-1.6 | 0.69 |
| Both combat and peacekeeping missions | 1.5 | 1.2-1.8 | <0.001 | 1.5 | 1.2 - 1.9 | <0.001 | 1.5 | 1.2-1.9 | <0.001 |
| Neither combat or peacekeeping missions (reference) | 1.0 | … | … | … | … | … | … | … | … |

Symbol: = no data; * 95% Bootstrap confidence intervals ; OR = odds ratio; (reference) = Reference group for statistical analysis

**TABLE 3** Key determinants of antidepressant use among members of the Canadian Forces who reported having experienced a major depressive episode in the past 12 months.

| Independent variables | Unadjusted Model | | | Adjusted Model | | | Parsimonious Model | | |
|---|---|---|---|---|---|---|---|---|---|
| | OR | 95%CI* | *P*-value | OR | 95%CI* | *P*-value | OR | 95%CI* | *P*-value |
| **Sex** | | | | | | | | | |
| Male (reference) | 1.0 | … | … | … | … | … | … | … | … |
| Female | 1.5 | 1.0-2.1 | 0.32 | … | … | … | … | … | … |
| **Age, y** | | | | | | | | | |
| 16-39 (reference) | 1.0 | … | … | … | … | … | … | … | … |
| 40+ | 1.2 | 0.7-1.9 | 0.46 | … | … | … | … | … | … |
| **Marital Status** | | | | | | | | | |
| Single (reference) | 1.0 | … | … | … | … | … | … | … | … |
| Married/common law | 2.2 | 1.3-7.1 | <0.01 | 3.5 | 1.8-6.7 | <0.01 | 3.6 | 2.0-6.4 | <0.01 |
| Widowed/separated/divorced | 2.1 | 1.4-8.5 | <0.01 | 4.0 | 2.0-8.1 | <0.01 | 4.0 | 2.0-8.4 | <0.01 |
| **Educational Attainment** | | | | | | | | | |
| Graduate and above (reference) | 1.0 | … | … | … | … | … | … | … | … |
| Undergraduate and below | 1.0 | 0.7-1.5 | 0.97 | … | … | … | … | … | … |
| **Household Income, Can $** | | | | | | | | | |
| <5000 - ≤49000 (reference) | 1.0 | … | … | | | | | | |
| >49000 - ≤79000 | 1.7 | 1.0-2.8 | 0.04 | 1.3 | 0.7-2.3 | 0.35 | … | … | … |
| >79000 | 1.5 | 0.9-2.5 | 0.09 | 1.3 | 0.7-2.4 | 0.38 | … | … | … |
| **Region** | | | | | | | | | |
| Central (reference) | 1.0 | … | … | … | … | … | … | … | … |
| Atlantic | 1.2 | 0.7-2.1 | 0.44 | 1.1 | 0.6-2.0 | 0.71 | 1.1 | 0.6-2.0 | 0.79 |
| Quebec | 1.0 | 0.6-0.2 | 0.86 | 0.8 | 0.5-1.6 | 0.68 | 0.8 | 0.4-1.6 | 0.69 |

| | OR | 95% CI[*] | p | OR | 95% CI[*] | p | OR | 95% CI[*] | p |
|---|---|---|---|---|---|---|---|---|---|
| Western | 1.9 | 1.1-3.3 | 0.02 | 1.6 | 0.9-2.9 | 0.08 | 1.6 | 0.9-2.9 | 0.11 |
| **Environment of service** | | | | | | | | | |
| Navy (reference) | 1.0 | … | … | … | … | … | … | … | … |
| Army | 1.3 | 0.7-2.2 | 0.38 | … | … | … | … | … | … |
| Air | 1.0 | 0.6-1.9 | 0.87 | … | … | … | … | … | … |
| **Rank of service** | | | | | | | | | |
| Officer (reference) | 1.0 | … | … | … | … | … | … | … | … |
| Junior NCM | 1.9 | 1.1-3.1 | 0.01 | 1.7 | 0.9-3.0 | 0.07 | 1.6 | 0.9-2.8 | 0.10 |
| Senior NCM | 1.6 | 0.9-2.8 | 0.11 | 1.0 | 0.5-1.9 | 0.88 | 1.0 | 0.5-1.9 | 0.94 |
| **Type of service** | | | | | | | | | |
| Combat missions only | NR | NR | NR | NR | NR | NR | NR | NR | NR |
| Peacekeeping missions only | 1.3 | 0.8-2.3 | 0.26 | 1.1 | 0.6-2.0 | 0.62 | 1.2 | 0.7-2.0 | 0.55 |
| Both combat and peacekeeping missions | 2.6 | 1.5-4.3 | <0.001 | 2.1 | 1.2-3.8 | <0.001 | 2.2 | 1.3-3.8 | <0.001 |
| Neither combat or peacekeeping missions (reference) | 1.0 | … | … | … | … | … | … | … | … |

Symbols: = no data; [*]95% Bootstrap confidence intervals; OR = odds ratio; (reference) = Reference group for statistical analysis; NR: Estimates not reported because of small cell size (n<15)

The determinants of past 12 months MDE for members of the Canadian Forces are summarized in Table 2. The final adjusted model excluded covariates such as educational attainment, household income, and environment of service. Significant sociodemographic characteristics were female (OR=1.8, 95%CI: 1.5-2.0); individuals identifying themselves as widowed/separated/divorced (OR=2.7, 95%CI: 2.1-3.6); and individuals located in Quebec (OR=1.7, 95%CI: 1.4-2.1), Atlantic Canada (OR=1.3, 95%CI: 1.0-1.6), and Central Canada (OR=1.3, 95%CI: 1.1-1.6), relative to Western Canada. Among service level characteristics, the likelihood of experiencing MDE was highest among junior NCM enlisted individuals in the Canadian Forces (OR=1.3, 95%CI: 1.1-1.6), and individuals who had engaged in combat missions (OR=1.2, 95%CI: 1.0-1.4) and both combat and peacekeeping missions (OR=1.5, 95%CI: 1.2-1.9).

Table 3 describes the determinants of past 12 month antidepressant use among members of the Canadian Forces who experienced major depression. The final adjusted model excluded covariates such as sex, age, educational attainment, household income, and environment of service. Significant sociodemographic characteristics included being married/common law (OR=3.6, 95%CI: 2.0-6.4) and widowed/separated/divorced (OR=4.0, 95%CI: 2.0-8.4), relative to single. Among service level characteristics, individuals exposed to both combat and peacekeeping missions had a higher likelihood of utilizing antidepressants (OR=2.2, 95%CI: 1.3-3.8). There was no significant variation in antidepressant use by sex, age, income or education.

**DISCUSSION**

As noted in other studies, the prevalence of major depression among members of the military is higher than those found in the general population. This heightened prevalence is likely a product of the hardships (both physical and mental) from serving in the forces, in combat and peacekeeping missions.[5,11,18,19] An important question is to what extent individuals serving in the military are accessing and using appropriate therapies to combat their experiences of depression. A previous study of members of the Canadian Forces examined perceived need for treatment.[11] They found that males involved in combat and peacekeeping missions had a significantly higher perceived need for medication for treatment, with only limited perceived need for other types of treatment. This analysis, however, included all mental health conditions among military personnel and did not look at actual treatment received. The concern of the current study was the extent to which these same military personnel use pharmacotherapy to treat major depression.

Overall, 32% of the members who had experienced MDE in the past year, reported taking antidepressants, a lower rate than a previous study on the Canadian Forces (57.6%) assessing the diagnosis of antidepressant use,[14] and lower than antidepressant use in the general Canadian population for major depression within the previous 12 months (40%).[20] Canadian Forces personnel appear to suffer the dual burden of having both higher rates of major depression than the general population, yet lower use of antidepressants to treat the illness.

It is possible that the lower rate of antidepressant use is due to stigma or barriers to mental heath care in the military. These include lack of information on where to seek help, help not available promptly, work schedule, concern about the attitude of others to mental health problems, and lack of confidence in the military system.[1,11] Conversely, another explanation might be the greater availability of non-pharmacological treatment to members of the military that might reduce reliance on antidepressants.[11] Either of these explanations might account for our other finding that female personnel were more likely to report MDE, even though their antidepressant use was not higher. Of service related characteristics, individuals who had engaged in both combat and peacekeeping missions were more likely to report taking antidepressants, and this aligns with their significantly higher levels of past year major depression.

There are several limitations to this study. Firstly, the cross sectional design of the survey rules out causal inferences based on the study findings. Secondly, we used cross-sectional self reported data, which may be subject to reporting bias. On the other hand, previous work suggests a high degree of reliability in self reported data by individuals serving in combat missions.[21] Thirdly,

although we restricted our analysis of antidepressant use to the subset of Canadian Forces members who had past year MDE, the CCHS1.2-CFS survey did not specifically ask about the indication for medication use. It is therefore possible that respondents were taking antidepressants for reasons other than MDE. Fourthly, the survey was completed in 2002 at a time when the intensity of military involvement in combat missions was quite different than Canada's more recent engagement in Afghanistan. In addition, this study was conducted just as engagement in Afghanistan was starting and before the Canadian Forces launched various mental health awareness campaigns and treatment programs, including those involving active screening, active prevention and treatment.[22] Finally, there was no data available to assess the influence of psychiatric history, behavioural therapy, anxiolytics, natural health products, years of service and type/class of antidepressant on the study findings.

Nevertheless, this study provides important data on the sociodemographic and service level risk factors associated with the use of antidepressants among members of the Canadian Forces who have experienced major depression in the past 12 months. Interventions to manage major depressive episodes among members of the Canadian Forces are essential and may be underutilized. In particular, such interventions should closely monitor females, those of junior NCM rank and those returned from both combat and peacekeeping missions among others, who appear to be at an elevated risk of major depression, while also under-utilizing pharmacotherapy. Members of the Canadian Forces should be able to seek appropriate pharmacotherapy and non-pharmacotherapy for MDE. Future research must examine the effectiveness of health care and barriers to treatment for members of the Canadian military, especially given Canada's current role in Afghanistan.[1,6]

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