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Social anxiety disorder and social fears in the Canadian military: Prevalence, comorbidity, impairment, and treatment-seeking

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ABSTRACT

Background: Military mental health research has rarely investigated social anxiety disorder, despite its known serious consequences in the general population, and what work has been conducted has used specialized samples (e.g., veterans) not representative of all military personnel.
Methods: Data were from the 2002 Canadian Community Health Survey—Canadian Forces Supplement, a representative survey of 8441 active regular and reserve military personnel.
Results: Social anxiety disorder has a high lifetime (8.2%) and past-year (3.2%) prevalence in the military. It is associated with increased odds of depression, panic attacks/disorder, generalized anxiety disorder, and post-traumatic stress disorder (AOR range 4.16–16.29). Being female, ages 35–44, or separated/divorced/widowed increases the odds of having social anxiety disorder, while being an officer or a reservist decreases the odds. Treatment-seeking, as in the general population, is relatively rare. Overall, military personnel with social anxiety disorder experience significant rates of role impairment in all domains (53.1–88.3% report some impairment), with the rate of role impairment increasing with the number of social fears. Notably, many (70.6%) report at least some impairment at work (i.e., in their job with the military).
Conclusion: Social anxiety disorder is an important disorder to take into account when considering military mental health. Observing low rates of treatment-seeking for social anxiety disorder among military personnel highlights the importance of initiatives to allow its identification and treatment.

Mental disorders are relatively common among active military personnel, with approximately 9–17% having at least one mental disorder either currently or within the past year (Sareen et al., 2007; Hoge et al., 2004). The presence of mental disorders is associated with early attrition and discharge among military recruits (Hoge et al., 2002; Krauss et al., 2000), and over 25% of those who receive outpatient care and 45% of those who receive inpatient care for mental disorders leave military service within six months, compared to only 9% and 11% of those who receive outpatient or inpatient care for other illnesses, respectively (Hoge et al., 2002, 2005). These factors have led experts in the field to identify the epidemiological investigation of the prevalence, severity, and health care use of mental disorders in the military as a research priority (Hoge et al., 2003).

Very little work has been conducted examining social anxiety disorder in military populations. Much of the focus in empirical examinations of the mental health of the military tends to fall on other disorders, such as post-traumatic stress disorder (PTSD), depression, and alcohol abuse. These disorders are undeniably important to explore in a population with such high rates of traumatic exposure, but this should not lessen the importance of examining and understanding in military populations other disorders that are known to have serious consequences in the general population. Some research has examined social anxiety disorder in veterans (almost exclusively having served in Vietnam), and a large majority of this work considered social anxiety disorder as a result of or as an adjunct to PTSD. This literature has demonstrated that social anxiety disorder has a high prevalence (approximately 15%; O'Toole et al., 1996), often precedes PTSD in this group (O'Toole et al., 1998), and is associated with significantly increased

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comorbidity and suicidality (Kashdan et al., 2006). However, Vietnam veterans, particularly those with post-traumatic stress disorder, are a specialized population and this work may not be generalizable to the general population of active military personnel. What is needed in the literature, and what has yet to be conducted, is a comprehensive examination of the epidemiology and characteristics of social anxiety disorder in a representative sample of active military personnel.

Findings about social anxiety disorder in the general population heighten the importance of determining the characteristics of this disorder in the military. In representative civilian samples, social anxiety disorder has a high lifetime prevalence (approximately 5–12%; Shields, 2004; Kessler et al., 2005; Grant et al., 2005; Stein, 2006) and is associated with increased disability, decreased quality of life, poorer role functioning, and suicidal behavior (Shields, 2004; Simon et al., 2002; Wittchen et al., 2000; Stein and Kean, 2000; Wittchen and Fehm, 2001; Sareen et al., 2005). Additionally, social anxiety disorder has been shown in longitudinal studies to be a risk factor for later development of major depression (Stein et al., 2001; Beesdo et al., 2007). For these reasons, social anxiety disorder is an extremely important disorder to understand from an epidemiologic standpoint, in both general population and military samples.

General population research has also indicated that professional treatment-seeking for social anxiety disorder is rare (Grant et al., 2005; Stein, 2006; Shields, 2004). Perceived need for treatment is generally low in military personnel, even among those who meet screening criteria for a mental disorder (Hoge et al., 2004). Professional help-seeking is even lower among these individuals (Hoge et al., 2004), which may be due in part to the stigma associated with mental disorders (Greene-Shortridge et al., 2007). In light of this, the study of social anxiety disorder in representative military samples takes on further importance from a public health standpoint, since understanding the disorder as it exists in the general military population may lead to better, more targeted interventions to reduce its impact on affected military personnel.

The current study will fill major gaps in the literature by investigating the features of social anxiety disorder using a representative sample of active military personnel. We will examine the prevalence of social anxiety disorder and social fears in the military, as well as determine the sociodemographic correlates and role impairment associated with this diagnosis. Further, we will test how social anxiety disorder relates to other mental disorders among military personnel, and we will examine whether social anxiety disorder interacts with deployment status to increase the odds that personnel will also meet criteria for other mental disorders. Finally, we will determine the frequency of treatment-seeking in military personnel who meet criteria for a diagnosis of social anxiety disorder.

2. Methods

2.1. Survey

Data were from the Canadian Community Health Survey Cycle 1.2—Canadian Forces Supplement (CCHS-CFS), a cross-sectional representative survey of active Canadian military personnel conducted between May and December 2002. The survey consists of 8441 respondents: 5155 Regular force personnel (response rate: 79.5%) and 3286 Reserve force personnel (response rate: 83.5%). A complex, multi-staged sampling design was employed in this survey to ensure its representativeness of the Canadian military population. Details of the methodology of this survey are published elsewhere (Statistics Canada, 2006), as is a summary of the demographic characteristics of the sample (Sareen et al., 2007).

2.2. Measures

Psychiatric diagnoses. Diagnoses of mental disorders were made using the fully-structured World Health Organization's Composite International Diagnostic Interview version 2.1 (WHO-CIDI; Kessler and Ustun, 2004). Both International Classification of Diseases (ICD-10; World Health Organization, 1992) and Diagnostic and Statistical Manual (DSM-IV; American Psychiatric Association, 2000) diagnoses were derived; DSM-IV diagnoses were employed in the current study. The WHO-CIDI has been well-validated for use in population-based research by lay interviewers, generating reliable diagnoses that are consistent with clinician diagnoses (Kessler and Ustun, 2004). The CCHS-CFS contains past-year and lifetime diagnoses of social anxiety disorder, post-traumatic stress disorder (PTSD), panic disorder, generalized anxiety disorder (GAD), and major depressive disorder. Both lifetime and past-year psychiatric disorder diagnoses were utilized in analyses. Past-year alcohol dependence was also assessed using the CIDI Short Form (CIDI-SF), with three or more symptoms indicating DSM-IV alcohol dependence (Kessler et al., 1998).

Social fears. In the social anxiety disorder module of the survey, respondents were asked whether they had ever felt shy, uncomfortable, or afraid in any of 14 different social situations. These situations included meeting new people, working while someone was watching, and speaking in a meeting or class. In addition to examining social fears individually, two variables were created to characterize the number of social fears a respondent endorsed. First, a variable was derived to identify respondents endorsing at least one social fear. Second, a categorical variable was created that characterized whether a respondent endorsed 1–4, 5–7, 8–10, or 11 or more of the 14 social fears. This allowed for analyses to be conducted to determine the associations between the number of social fears (an indicator of social anxiety disorder severity; (Ruscio et al., 2008)) and a variety of outcomes, such as mental disorder comorbidity. This type of social fear categorization has been used in previous work of this type in the general population (Ruscio et al., 2008).

Role impairment. The Sheehan Disability Scale (Leon et al., 1992) was used to assess role impairment. Respondents who endorsed at least one social fear were asked how much their fear or avoidance of social situations interfered in the past year with their home responsibilities, social life, ability to work, ability to attend school, and ability to form and maintain close relationships. Responses were given on a scale from 0 (no interference) to 10 (very severe interference). Because of the skewness of this variable in the sample, and in order to maintain consistency with previous work (Ruscio et al., 2008), the scale was dichotomized into an “any impairment” variable, which separated respondents giving a rating of 1 or higher from those giving a rating of 0 (no interference) in each area.

Sociodemographics. A number of sociodemographic variables were examined to determine their association with social anxiety disorder and particular social fears. Specifically, age, gender, marital status, income, education, military rank, and force type (regular or reserve) were included.

Treatment-seeking. Respondents who endorsed at least one social fear were asked whether they had ever received professional help specifically for their social fears. All respondents were also asked whether they had sought help for problems with their emotions, mental health, or use of alcohol or drugs. Among respondents who responded affirmatively, information was also collected regarding the types of services used. This information was utilized to help characterize whether military personnel who meet criteria for social anxiety disorder seek help for their social fears, and, if so, what types of help are sought.

Deployment. As part of the CCHS-CFS questionnaire, respondents were asked the following question: “How many deployments