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Mental Health, Help-Seeking Behaviour and Social Support in the UK Armed Forces by Gender

Norman Jones, Neil Greenberg, Ava Phillips, Amos Simms, and Simon Wessely

Background: Little is known about gender differences in mental health, related help-seeking behavior and social support in UK military personnel. *Methods*: 1714 UK military serving personnel and ex-service veterans were randomly selected if, in a cohort study, they endorsed experiencing a subjective stress, emotional, alcohol or mental health problem in the previous three years. Following exclusions, the final sample size was 1448 (participation rate 84.5%; women n = 219). Structured telephone interviews assessed anxiety, depression, PTSD symptoms, alcohol use, help-seeking and social support occurring both currently and in the past three years. Outcomes were assessed using weighted unadjusted and adjusted logistic regression analyses. *Results*: Mental health problems assessed at interview were broadly similar for men and women; for both genders, levels of social support were high. One-fifth of respondents screened positive for probable mental disorder or alcohol misuse; although rates of mental disorder symptoms did not differ by gender, women were significantly less likely than men to report alcohol misuse. Women were significantly more likely to have sought help from formal medical sources but significantly less likely to access informal support such as friends, family or unit welfare sources; reasons for seeking formal medical support were similar for men and women except for problem recognition and acting on advice from others, which were both significantly more common among women. *Conclusion*: For military personnel with a history of mental ill-health, women should make greater use of informal support networks while for men, engagement with formal medical help sources should be encouraged.

The United Kingdom Armed Forces (UK AF) have contributed substantial numbers of personnel to combat and peacekeeping operations including medium-scale missions in Bosnia Herzegovina, Kosovo, countries in Africa (Curran & Williams, 2017) and in Iraq

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and Afghanistan (Hines, Gribble, Wessely, Dandeker, & Fear, 2015). Although studies have explored the mental health impact of deployment among UK military personnel overall (Sundin, Fear, Iversen, Rona, & Wessely, 2010) and others the specific impact of deployment on women (Woodhead, Wessely, Jones, Fear, & Hatch, 2012), few have systematically evaluated help-seeking and associated factors in this population by gender. When help-seeking has been assessed in UK studies, the findings indicate that help-seeking levels are low for men and women combined. For instance, personnel participating in a cohort study who were classified as cases on either a posttraumatic stress disorder (PTSD) or common mental disorder (CMD) measure and a randomly selected group who were not cases on either measure provided data about their help-seeking behavior and intentions (Iversen et al., 2010). The study outcomes suggested that 23% of military personnel, men and women combined, with mental disorder symptoms accessed some form of formal medical help, although non-medical help sources were more frequently used. In a second study of help-seeking following deployment, 29% of UK AF personnel who self-reported a stress or emotional problem and 17% who reported an alcohol problem sought formal medical support (Hines et al., 2014). This study did not explore gender differences in help-seeking. More recent studies suggest that levels of help-seeking from formal medical sources in this population have increased; however, half of military personnel, men and women, with a history of psychological difficulties did not seek medical help (Stevelink et al., 2019).

In a non-military setting, women with CMD symptoms are known to seek help more readily than men (Oliver, Pearson, Coe, & Gunnell, 2005). Similarly, observational data provided by UK Defence Statistics suggest that a greater proportion of military women may seek help from military mental healthcare sources than men (UK Government Statistics, 2018a, 2018b, 2018c).

A number of factors are thought to impact help-seeking among UK military personnel, including social support (Greenberg et al., 2003), higher levels of which appear to be both protective of mental health (Pietrzak, Johnson, Goldstein, Malley, & Southwick, 2009) and may also act as a facilitator of help-seeking in both men and women. For instance, people who were prompted to seek help by a significant other were more likely to access care (Vogel, Wade, Wester, Larson, & Hackler, 2007). In a specific study of military women, those whose spouses were absent from the military base were less likely to access care (Hourani, Williams, Bray, Wilk, & Hoge, 2016).

Although the available evidence can be contradictory (Sudom, Zamorski, & Garber, 2012), mental health-related stigmatization is postulated as being an important barrier to care (Corrigan, Druss, & Perlick, 2014) and has been widely explored (Sharp et al., 2015). Aside from the effects of stigma, with the exception of a qualitative study (Murphy, Hunt, Luzon, & Greenberg, 2014), few studies have assessed specific reasons for seeking help in military populations with no studies assessing gender differences. Given that help-seeking in the UK military appears to be relatively infrequent and the majority of personnel do not suffer from mental disorders (MacManus et al., 2014), substantial numbers are required to adequately assess help-seeking. We therefore used a large sample, stratified by gender, to evaluate help-seeking and associated factors in personnel who were known to be suffering from, or had experienced a mental health problem. Our main aim was to describe patterns of mental health-related help-seeking behavior by gender, reasons for seeking help, gender differences in patterns of perceived social support and any differential use of various categories of mental health support by men and women.

METHODS

Sample

The current study used data derived from a larger military cohort study which began in 2004 (Hotopf et al., 2006) and is based upon three main phases of data collection. The first phase of data collection started in 2004 and was completed in 2006. Phase 1 compared aspects of mental health between two randomly selected groups; group one comprised around 10% of the personnel, both regular and reserve, who deployed to Iraq between January and April 2003; group two comprised a comparator sample of trained military personnel who did not deploy to Iraq during the same period. A second follow-up cohort (phase 2) took place between 2007 and 2009 (Fear et al., 2010). On this occasion, the study group included personnel who became military veterans since participating in the earlier phases and a group of military reserves who were oversampled as they were hypothesized to be at greater risk of deployment-related mental ill-health. The response rates were 59% for phase one and 56% for phase 2. At phase 2, a randomly selected sample of Afghanistan-deployed personnel was included and a "replenishment sample" was added to maintain the survey's representative nature as some existing cohort members had become veterans since phase 1. The latter sought to encompass newly recruited but trained personnel who would have had an opportunity to deploy. A further phase of follow-up study (Phase 3) took place from 2014 to 2016 which surveyed those included in previous cohort phases who provided consent to further contact and which incorporated a new replenishment sample.

The current study sample came from a larger group of military and ex-military respondents, including reserve and regular forces from air, sea, and land Service branches, who were participating in phase 3 of the military cohort study (n = 7955; Stevelink et al., 2018). Participants who answered "yes" to the question, "have you had a stress or emotional problem in the past three years" and who had consented to further contact were invited at random to take part in a telephone interview. A total of 2017 potential participants were identified of which 1714 were randomly selected for inclusion in the current study. Twenty-five participants were randomly selected from batches of 100 as completed interviews were accumulated, until sufficient numbers were recruited to satisfy the power requirements of the study. Two hundred and sixty-five did not participate for varied reasons (Stevelink et al., 2019) resulting in a final sample size of 1448 participants (Figure 1).

Procedure

Invitation letters and a study pack were sent to potential participants by post; this included a consent form, a response list for use during the interview and a signposting booklet detailing potential sources of help. With the exception of three respondents who did not give consent, participant interviews were audio-recorded while responses were entered into a database in real time. Structured interviews were conducted by researchers specifically trained for the task by senior research and clinical staff; the latter provided on-demand supervision throughout the study. On completion of the interview, the option was given to receive a telephone call from a mental health practitioner if the interviewee appeared to be distressed and fulfilled heightened risk criteria in the study risk protocol. Risk related to endorsement of self-harm questions or where interviewers identified heightened risk to self or others. The interviews lasted on average 42 min (range 17–148 min depending upon problem severity or complexity). Respondents were offered £25 on completion of the interview. Data collection took place between February 2015 and December 2016.

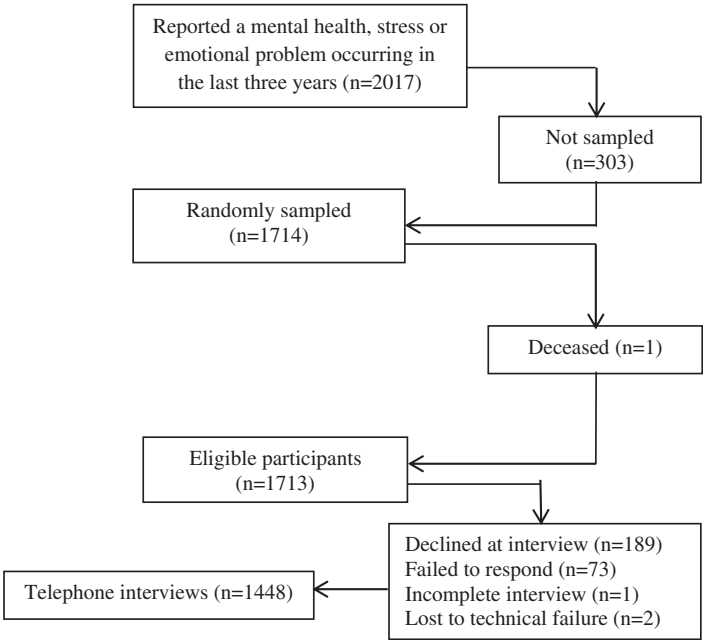

FIGURE 1. Sampling procedure.

MEASURES

Mental Health

The interview schedule included a number of brief mental health measures including: the 9-item Patient Health Questionnaire (PHQ-9) (Kroenke, Spitzer, & Williams, 2001); the 7-item Generalized Anxiety Disorder (GAD-7) scale (Spitzer, Kroenke, Williams, & Lowe, 2006), the 3-item Alcohol Use Disorders Identification Test (AUDIT-C) (Bush, Kivlahan, McDonell, Fihn, & Bradley, 1998) and the 20-item posttraumatic stress disorder checklist for DSMV (PCL-5) (Blevins, Weathers, Davis, Witte, & Domino, 2015). Conventional cut-off scores for the symptom measures were selected to indicate the presence of mental health disorder or problem caseness: PHQ-9 scores ≥15 (indicating probable depression); GAD-7 scores ≥10 (indicating probable anxiety disorder) and PCL-5 scores ≥38 (indicating probable PTSD) (Dickstein et al., 2015). As alcohol misuse is common among UK military personnel and large numbers tend to score positive when using a conventional threshold; 67% of men and 49% of women are classified as using alcohol hazardously (Fear et al., 2007), an AUDIT-C cut-off score ≥10 was used to indicate alcohol use which is probably harmful to health (Sundin et al., 2014). In addition, a single item, in general, how would you rate your health now?, from the 36-item short form health survey (SF-36) was used to rate perceptions of physical health (McHorney, Ware, & Raczek, 1993). Excellent, very good or good health responses were combined and compared with ratings of fair or poor health. The time frame for symptoms was the last two weeks for anxiety and depression, past month for the PCL-5 while the AUDIT-C and general health questions relate to the present. A comorbidity variable was created by combining caseness on each of the three mental health measures; PHQ-9, GAD-7, and PCL-5; comorbidity consisted of two categories; zero or one versus two or more probable mental health disorders.

Help-Seeking

Help-seeking questions were derived from initial pilot work carried out among military personnel. Study participants were asked if they had sought help for their mental health problems in the last three years; follow-up questions related to the most recent episode. Multiple help sources were inquired about. For analytic purposes, four mutually exclusive classes of help-seeking were generated; no help sought, informal help only, formal non-medical support (potentially including informal help) and formal medical support (potentially including informal and formal non-medical). The informal help class included sources such as family and friends and work colleagues; the formal non-medical help class included welfare officers, trained peer helpers, etc.; and formal medical help included general medical practitioner, mental health specialist, other medical practitioners, etc. Many participants had received help from multiple sources. Study participants were asked to consider and endorse or reject 11 possible reasons for seeking help (items 1 through 8 and items 10, 11 and 13 in Table 4); in addition, they provided their own personal reasons for seeking help which were subsequently categorized and grouped by the research team. This resulted in three additional categories (items 9, 10 and 13 in Table 4) (Table 4).

Social Support

Social support was measured using the multidimensional scale of perceived social support (MSPSS) (Zimet, Dahlem, Zimet, & Farley, 1988) which assesses 12 aspects of social support; scale items are shown in Table 5. Participants were asked to endorse five response categories; that the source of social support was present (strongly agree or agree), absent (strongly disagree or disagree) or a neither agree nor disagree category. For analytic purposes, neither agree nor disagree responses were recoded to missing and a binary variable indicating presence or absence was generated for each social support item.

Sample Size

Using the cohort phase 2 formal help-seeking rate of 29% described in the introduction, the current study was powered to detect a 12% difference in rates of help-seeking between serving and ex-service veterans with a two-sided alpha of 0.05 and 85% power with serving, ex-serving and reserve forces proportions estimated from responses to phase 2 of the main cohort survey. The required sample sizes were 878 serving personnel, 176 ex-Service, and 176 reserves.

Analyses

Response weights were generated to account for non-response, based on variables shown to be associated with responding (age, rank and Service background). Response weights were calculated on the inverse probability of responding once sampled.

Analyses were undertaken with the statistical software package STATA version 14, using the survey command (svy) to account for the application of sample weights. Demographic and military variables, reasons for help-seeking and social support were compared between genders. Socio-demographic and military characteristics were compared using Pearson's Chi-squared test using Scott and Rao's second order correction to account for weighting. The associations of gender with probable mental health disorders, alcohol misuse, help-seeking, reasons for accessing support and social support were examined using unadjusted logistic regression analyses. Mental health outcomes were further adjusted for age, serving or ex-serving status, rank, Service branch and engagement type (regular or reserve) while help-seeking, reasons for accessing support and social support outcomes were adjusted for age, serving or ex-serving status,

rank, Service branch, engagement type (regular or reserve) and additionally for mental health factors. Results tables show weighted percentages, unweighted cell counts and odds ratios (OR) with 95% confidence intervals (CIs). Statistical significance was defined as $p \leq 0.05$.

Ethical Approval

Ethical approval was granted by the UK Ministry of Defence Research Ethics Committee (ref: 535/MODREC/14). Written and verbal consent was provided by all participants.

RESULTS

Sample Description

The overall response rate was 84.5%, with 1448 participants providing data for the study. Of these, 15.1% were women (n = 219); 62.7% (n = 135) of the women had served in or were currently in the Army. Military women were significantly younger than men (61.3% ≤40 years of age (n = 132) compared with 43.0% of men (n = 512), $p < .001$), significantly more likely to be an officer (31.2% (n = 71) versus 24.0% of men (n = 309) respectively) and significantly more likely to have served or be serving in the reserve (26.3% (n = 57) versus 17.3% of the men (n = 211), $p < .01$) (Table 1). Women were significantly less likely to have left service (34.5% (n = 76) versus 47.0% of men (n = 581), $p < .001$) and less likely to have deployed to Iraq and/or Afghanistan (64.8% (n = 142) women had deployed versus 75.0% of men (n = 922), $p < .01$).

TABLE 1. Characteristics of Men and Women Participating in the Clinical Interview Study

Overall study sample (n = 1448) (men n = 1229, 84.9%; women n = 219, 15.1%)	Men	Women	
Characteristic	n (%)	n (%)	*p
Age (years)			
<30	136 (12.5)	38 (19.2)	**<0.001**
30–39	376 (30.5)	94 (42.1)	
≥40	717 (57.0)	87 (38.7)	
Service			
Naval Services	170 (13.3)	27 (11.9)	0.14
Army	802 (66.5)	135 (62.7)	
RAF	257 (20.2)	57 (25.4)	
Rank			
Officer	309 (24.0)	71 (31.2)	**0.05**
NCO	762 (62.2)	117 (53.7)	
Other rank	158 (13.8)	31 (15.1)	
Engagement type			
Regular	1018 (82.7)	162 (73.7)	**<0.01**
Reserve	211 (17.3)	57 (26.3)	
Serving status			
Ex-service	581 (47.0)	76 (34.5)	**<0.001**
Serving	648 (53.1)	143 (65.5)	
Completed operational deployment (Afghanistan or Iraq)			
No	306 (25.0)	76 (35.2)	**<0.01**
Yes	922 (75.0)	142 (64.8)	

*p Values are for Pearson chi-squared test corrected for weighting using Rao and Scott second order correction.
n's are shown without the composite weight applied, %s are shown with weight applied.

Mental Health

Of the study participants who reported a subjective stress, emotional or mental health problem, 57.3% (n = 819) felt that they currently had such a problem while the remainder reported historical problems that had occurred in the three years prior to the study and which had resolved at the time of interview (Table 2). Mental health measures obtained at interview indicated that current symptoms of anxiety were reported by 18.2% of study members (n = 260), symptoms of depression by 7.8% (n = 110), probable PTSD by 7.9% (n = 224) and probable harmful alcohol use by 18.6% (n = 267). Of the participants, 9.1% (n = 296) self-reported at least two mental health disorders (comorbidity), 16.7% felt that their general health was fair or poor (n = 243).

TABLE 2. Gender Differences in Symptoms of Mental Health Disorder

Outcome			OR (95% CI)	*AOR (95% CI)
Self-reported stress/emotional/alcohol/mental health problem	**Current**	**Past**		
Men	701 (57.7)	512 (42.3)	1	1
Women	118 (53.8)	101 (46.2)	1.17 (0.88–1.56)	1.07 (0.79–1.44)
Overall health rating	**Good–Excellent**	**Fair–Poor**		
Men	1019 (83.0)	210 (17.0)	1	1
Women	186 (84.8)	33 (15.2)	0.87 (0.58–1.30)	1.01 (0.67–1.52)
Symptoms of anxiety (GAD 7 score ≥10)	**No Case**	**Case**		
Men	1012 (82.2)	216 (17.8)	1	1
Women	175 (79.5)	44 (20.5)	1.19 (0.83–1.71)	1.25 (0.87–1.82)
Symptoms of depression (PHQ 9 score ≥15)	**No Case**	**Case**		
Men	1135 (92.3)	93 (7.7)	1	1
Women	202 (92.1)	17 (7.9)	1.03 (0.60–1.76)	1.07 (0.62–1.86)
Probable PTSD (PCL 5 score ≥38)	**No Case**	**Case**		
Men	1122 (91.2)	107 (8.8)	1	1
Women	202 (92.1)	17 (7.9)	0.89 (0.52–1.51)	0.99 (0.57–1.72)
Alcohol misuse (AUDIT C score ≥10)	**No Case**	**Case**		
Men	980 (79.6)	249 (20.4)	1	1
Women	201 (91.6)	18 (8.4)	**0.36 (0.22–0.59)	**0.35 (0.21–0.58)
***Comorbidity**	**None**	**Comorbid**		
Men	981 (79.7)	247 (20.3)	1	1
Women	170 (77 .3)	49 (22.7)	1.15 (0.81–1.64)	1.25 (0.87–1.79)

‡Comorbidity equates to screening positive at least two disorders: anxiety symptoms, depression symptoms or probable PTSD.
*AOR: adjusted for age, serving or ex-Service veteran, rank, Service branch, engagement type.
**$p < 0.001$.
n's are shown without the composite weight applied, %s are shown with weight applied.

Except for probable harmful alcohol use, which was more commonly reported by men than women (20.4% (n = 249) versus 8.4% (n = 18) respectively; AOR 0.35, 95% CI 0.21–0.58), the prevalence of mental health disorder was not significantly different by gender.

Help-Seeking

In the whole sample, just over half of study respondents (54.6%, n = 785) accessed formal medical support while 103 (7.2%) had not accessed any form of help at all (Table 3). In this sample, 24.5% (n = 349) sought help from informal sources only, while 13.7% accessed sources that included formal non-medical support (n = 194). Women were significantly more likely than men to have sought help from formal medical sources (70.2% (n = 154) versus 51.8% (n = 631)) respectively (AOR 2.38, 95% CI 1.73–3.29) but less likely to access informal support (16.0% (n = 35) vs. 26.0% (n = 314)) respectively (AOR 0.52, 95% CI 0.35–0.76). In addition, women were less likely than men not to seek help, although the number of women responding in this category (n = 5) was very small (AOR 0.27, 95% CI 0.11–0.69). Gender differences remained significant following adjustment for mental health, socio-demographic and military factors.

Reasons for Seeking Help

The most common reason for seeking help from formal medical sources was

TABLE 3. Gender Differences in Classes of Help-Seeking

‡Categories of help *n* (%)	Women (*n* = 219) *n* (%)	¥Men (*n* = 1212) *n* (%)	OR	₮AOR (95% CI)	§AOR (95% CI)
No Help Sought 103 (7.2)	5 (2.3)	98 (8.1)	**0.27 (0.11–0.68)**	**0.29 (0.11–0.76)**	**0.27 (0.11–0.69)**
Informal Help Only 349 (24.5)	35 (16.0)	314 (26.0)	**0.54 (0.37–0.80)**	**0.52 (0.35–0.77)**	**0.52 (0.35–0.76)**
Includes Formal Non-Medical 194 (13.7)	25 (11.5)	169 (14.1)	0.79 (0.50–1.24)	0.63 (0.40–1.01)	0.76 (0.49–1.20)
Includes Formal Medical 785 (54.6)	154 (70.2)	631 (51.8)	***2.21 (1.49–3.27)**	***2.52 (1.82–3.49)**	***2.38 (1.73–3.29)**

‡Help categories are mutually exclusive; respondents may have endorsed more than one category.
¥Men are the reference category.
₮AOR: adjusted for age, serving or ex-Service veteran, rank, Service branch, engagement type.
§AOR: adjusted for generalized anxiety, depression, PTSD, alcohol misuse, comorbidity, current or past problem, subjective health.
*$p < 0.01$.
**$p < 0.001$.
n's are shown without the composite weight applied, %s are shown with weight applied.

realizing that one had a problem (70.9%, n = 560) (Table 4). In rank order, 57.0% (n = 449) of study participants cited concern that a mental health problem was getting worse, 51.5% (n = 408) realized that they could not solve psychological problems alone, 50.7% (n = 397) sought help after receiving advice from or a referral by a health-care professional 49.3% (n = 388) followed advice of a friend or colleague and 45.0% (n = 355) because of work being adversely affected by their problems. Major life events, chain of command or employer advice and disciplinary problems were less frequently cited as reasons for seeking help. When men's and women's individual reasons for help-seeking were compared, although the rank order was almost identical; there were significant differences in individual items. Women were significantly less likely than men to endorse help-seeking on the advice of a family member friend or colleague (women—41.6% (n = 64), men—51.2% (n = 324), AOR 0.67, 95% CI 0.47–0.96) or a non-healthcare professional (women—1.3% (n = 2), men 6.9% (n = 43), AOR 0.17, 95% CI 0.41–0.72) but were significantly more likely to seek help when they realized they could not solve their problems alone (women—58.7% (n = 92), men—49.8% (n = 316), AOR 1.45, 95% CI 1.00–2.08) or as a consequence of mental disorder symptoms (women—4.5% (n = 7), men—1.6% (n = 10), AOR 3.26, 95% CI 1.19–8.91). Although borderline non-significant, when adjusted for potential confounders, women more likely than men to seek help when mental health problems affected their work (women—51.9% (n = 81), men—43.3% (n = 274), AOR 1.46, 95% CI 1.02–2.09). This outcome was probably related to confounding). Readers should note the small number of women in some reasons for seeking help categories when interpreting results.

Perceived Social Support

Levels of perceived social support among men and women participating in the telephone interview study were high; all social support sources were endorsed by at least three quarters of respondents rising to approximately 95% for the most commonly endorsed factors (Table 5). Two factors were significantly more frequently endorsed by women following adjustment for socio-demographic, military and mental health factors; these were; "I have friends with whom I can share my joys and sorrows" (96.5% (n = 195) of women versus 88.6% of men (n = 954), AOR 1.99, 95% CI 1.34–2.93);

TABLE 4. Gender Differences in Reasons for Seeking Help from Formal Medical Support Sources

‡Rank	Reason for seeking help from formal medical support (n = 784) n %	Women n (%)	Men n (%)	OR (95% CI)	**AOR (95% CI)	***AOR (95% CI)
1	I realised that I had a problem 560 (70.9)	104 (66.4)	456 (72.0)	0.77 (0.53–1.12)	0.79 (0.54–1.18)	0.81 (0.55–1.18)
2	I was concerned that the problem was getting worse 449 (57.0)	98 (63.1)	351 (55.5)	1.37 (0.95–1.97)	1.36 (0.94–1.99)	1.43 (0.98–2.06)
3	I realised that I could not solve the problem myself 408 (51.5)	92 (58.7)	316 (49.8)	***1.44 (1.00–2.05)**	***1.45 (1.00–2.11)**	***1.45 (1.00–2.08)**
4	On the advice of or referral from a healthcare professional 397 (50.7)	83 (54.0)	314 (49.9)	1.18 (0.83–1.68)	1.22 (0.84–1.76)	1.24 (0.87–1.78)
5	On the advice of a family member, friend or colleague 388 (49.3)	64 (41.6)	324 (51.2)	***0.68 (0.47–0.97)**	***0.66 (0.46–0.96)**	***0.67 (0.47–0.96)**
6	The problem had started to affect my work 355 (45.0)	81 (51.9)	274 (43.3)	1.42 (0.99–2.01)	1.42 (0.98–2.06)	***1.46 (1.02–2.09)**
7	A change in life circumstances or a major life event 198 (24.9)	36 (23.0)	162 (25.4)	0.88 (0.58–1.33)	1.08 (0.70–1.67)	0.89 (0.59–1.36)
8	On the advice of my employer or chain of command 114 (14.6)	18 (11.9)	96 (15.2)	0.75 (0.44–1.29)	0.69 (0.39–1.21)	0.69 (0.40–1.19)
9	Due to physical symptoms or a physical health condition 56 (7.1)	14 (9.2)	42 (6.6)	1.44 (0.76–2.71)	1.54 (0.81–2.92)	1.54 (0.81–2.93)
10	The problem was causing disciplinary problems 69 (8.9)	12 (7.8)	57 (9.2)	0.83 (0.43–1.60)	0.81 (0.40–1.64)	0.90 (0.46–1.76)
11	Advice from or referral by a non-healthcare professional 45 (5.8)	2 (1.3)	43 (6.9)	***0.18 (0.44–0.77)**	***0.19 (0.45–0.76)**	***0.17 (0.41–0.72)**
12	As part of the healthcare process 33 (4.2)	5 (3.3)	28 (4.4)	0.72 (0.27–1.89)	0.49 (0.17–1.43)	0.76 (0.29–2.02)
13	I found a service through word of mouth, advert or online 36 (4.6)	7 (4.5)	29 (4.7)	0.97 (0.41–2.26)	0.97 (0.41–2.31)	1.02 (0.43–2.39)
14	Due to mental health symptoms 17 (2.2)	7 (4.5)	10 (1.6)	***2.88 (1.07–7.70)**	***3.07 (1.09–8.66)**	***3.26 (1.19–8.91)**

‡Ranks are based upon the proportion of item endorsements in the whole sample.
*$p < 0.05$.
**AOR: adjusted for age, serving or ex-service veteran, rank, Service branch, engagement type.
***AOR: adjusted for generalized anxiety, depression, PTSD, alcohol misuse, comorbidity, current or past problem, subjective health.
n's are shown without the composite weight applied, %s are shown with weight applied.

TABLE 5. Gender Differences in Perceived Social Support

Rank	‡Social Support Item	Women *n* (%)	Men *n* (%)	OR (95% CI)	*AOR (95% CI)	*AOR (95% CI)
1	There is someone close to me in my life who cares about my feelings	201 (95.8)	1123 (95.2)	1.08 (0.75–1.55)	1.05 (0.72–1.53)	1.11 (0.77–1.61)
2	I have friends with whom I can share my joys and sorrows	195 (96.5)	954 (88.6)	**1.90 (1.28–2.79)**	**1.72 (1.15–2.55)**	**1.99 (1.34–2.93)**
3	I can count on my friends when things go wrong	180 (94.6)	921 (91.1)	1.31 (0.93–1.83)	1.15 (0.81–1.64)	1.35 (0.97–1.89)
4	I have someone close to me who is a real source of comfort to me	192 (94.1)	1042 (91.0)	1.25 (0.92–1.71)	1.24 (0.90–1.71)	1.28 (0.92–1.76)
5	I can talk about my problems with my friends	184 (93.0)	820 (82.0)	**1.69 (1.28–2.25)**	**1.54 (1.15–2.07)**	**1.72 (1.28–2.31)**
6	There is someone close to me with whom I can share my joys and sorrows, ups and downs	196 (92.8)	1054 (91.6)	1.09 (0.82–1.44)	1.06 (0.79–1.41)	1.09 (0.81–1.45)
7	My friends really try to help me	170 (92.3)	784 (86.3)	**1.38 (1.03–1.84)**	1.21 (0.89–1.63)	**1.38 (1.02–1.85)**
8	There is someone close to me who is around when I am in need	189 (91.2)	1060 (91.0)	1.01 (0.78–1.31)	0.98 (0.75–1.28)	1.03 (0.78–1.35)
9	My family really tries to help me	170 (91.0)	948 (90.1)	0.97 (0.74–1.26)	0.93 (0.71–1.22)	0.93 (0.71–1.22)
10	My family is willing to help me make decisions	170 (87.7)	992 (90.0)	0.89 (0.70–1.13)	0.86 (0.67–1.10)	0.87 (0.68–1.11)
11	I get the emotional help and support I need from my family	149 (82.3)	866 (85.1)	0.90 (0.73–1.11)	0.87 (0.70–1.08)	0.87 (0.70–1.09)
12	I can talk about my problems with my family	137 (76.2)	817 (79.3)	0.91 (0.76–1.10)	0.91 (0.75–1.11)	0.87 (0.71–1.05)

‡ Neither agree nor disagree responses were recoded to missing.
*AOR: adjusted for age, serving or ex-Service veteran, rank, Service branch, engagement type.
**AOR: adjusted for generalized anxiety, depression, PTSD, alcohol misuse, comorbidity, current or past problem, subjective health.
n's are shown without the composite weight applied, %s are shown with weight applied.

"I can talk about my problems with my friends" (93.0% of women (n = 184) versus 82.0% of men (n = 820), AOR 1.72, 95% CI 1.28–2.31). "My friends really try to help me" was endorsed by 92.3% of women (n = 170) versus 86.3% of men (n = 784); however, this was not significantly associated with gender when adjusted for socio-demographic and military factors.

DISCUSSION

This study provides a contemporary overview of gender-specific help-seeking and associated factors among 1448 UK military men and women, both serving and ex-service veterans, an area that is infrequently researched in a UK military context. The main findings indicate that although there were some significant differences in the general pattern of help-seeking, alcohol misuse, reasons for seeking help and sources of social support, there were no significant differences in mental health outcomes. This finding is dissimilar to civilian research studies in which women seek help for mental health disorder symptoms more frequently than men (Kuehner, 2017). Despite wider research evidence that women are "catching up" with men (Slade et al., 2016), in keeping with the general literature (Hasin & Grant, 2015) we found that alcohol misuse was less frequently reported by women than men.

Strengths and Limitations

Major strengths of the current study were the large sample size and the high response rate of around 85%. Although mental health status in the main cohort study, from which the interview study sample was drawn, did not predict response, sample weights were applied to interview study analyses to offset any potential response bias. A further strength of the current study was the breadth of support sources other than formal medical support that were inquired about, which should provide some clarity and direction when planning for UK military women's support needs. Although the telephone interview was comprehensive, no clinical staff participated as interviewers and diagnosis could not therefore be established; however, reliable and valid mental health and alcohol measures were used to estimate probable disorders and other validated scales were used wherever possible. In some cases, a prolonged period may have elapsed between problem recognition, seeking help and participation in the telephone interview study; in these circumstances, it is possible that recall bias may have influenced or distorted participant's memories and accounts of help-seeking behaviors. There were small numbers of women in some reasons for seeking help categories which may have limited our ability to interpret outcomes relating to these items in a robust way. Finally, the study was cross-sectional which limits the ability to infer cause and effect.

In the general population, women are known to seek medical help more frequently than men, the latter more likely to be deterred by barriers such as stigmatization (Clement et al., 2015). This finding was replicated in the current study, although a greater proportion of women sought formal medical help than men, significantly fewer women sought help from informal sources. Overall, the reasons for seeking help were similar by gender, though the recognition of a need for external assistance, following advice from other people or because of the perceived impact of mental health symptoms, were all significantly more common among women. As women were less likely to access informal support, there may be an opportunity to further influence military women's help-seeking behaviors, perhaps by raising awareness of the form and impact of mental disorder symptoms through a program of education for partners and spouses, and therefore empowering those close to mentally unwell women such as peers, friends or family members. This approach should of course be evaluated for effectiveness.

Perceived levels of social support were similar for men and women although women

were significantly more likely to have friends to confide in and discuss their problems. However, as women appeared significantly less likely to access informal sources of support than men, our data suggest that they may not necessarily access close confidants. This may represent an opportunity for intervention by empowering significant others to offer support as women appear to derive particular mental health benefit from social support (Milner, Krnjacki, & LaMontagne, 2016). The generally high levels of social support reported by both genders suggested the importance of good social networks in the UK AF and further highlights the importance of peer support and influence. It is notable that the four least frequently endorsed social support items related specifically to family members. The latter may be related to the fact that currently serving personnel are often "posted" away from their wider family and therefore have less access to them, particularly if the Service person is single and may therefore be more reliant on unit members and friends for support. It is more difficult to propose an explanation for this finding among veterans.

Previous UK and international research suggest that many military personnel experience symptoms of mental disorder and yet do not seek help (Hoge et al., 2014; Jones, Keeling, Thandi, & Greenberg, 2015; Jones, Twardzicki, Fertout, Jackson, & Greenberg, 2013). Previous studies carried out among UK Service personnel suggest that formal medical sources of support are least frequently used (Fear et al., 2010). However, in the current study, over half of all personnel accessed formal medical support, which is a substantial increase from earlier estimates. We are unable to say with any certainty why this has occurred, although the UK AF have made substantial efforts to improve awareness of mental health conditions and potential help-sources during recent military campaigns. Women were significantly more likely than men to seek help from formal medical sources and it is therefore likely that for women, demand for medical and mental health specialist support both at home and from Field Mental Health Team members during deployment will increase in the future. This is particularly important if women are employed in roles that will potentially expose them to greater psychological risk, such as ground close combat, which is the current plan for UK Armed Forces (Gifford, Reynolds, Greeves, Anderson, & Woods, 2017). Also, the UK military is currently engaged in a program of mental health de-stigmatization and awareness-raising (UK Government website, 2018a, 2018b, 2018c) that might increase demand for mental health services further. The most common reasons for seeking formal medical support in the current study centered on problem recognition and accepting that a problem could not be solved by oneself. It is therefore possible, in a more permissive environment, that further increases in demand might happen, particularly among women who have a higher propensity to seek mental health support. Lastly, we found that women accessed informal support less frequently than men. Encouraging this form of help-seeking and empowering close confidants to provide support might ultimately lessen the demand for formal medical care for women.

In conclusion, this study examined the mental health and related help-seeking behavior of military men and women who had identified having experienced a stress or emotional problem in the previous three years. Although measured mental disorder symptoms were largely similar between men and women, the latter were significantly less likely to report an alcohol-related problem than men. However, it is worth considering that alcohol misuse in military females in the current study, whilst lower than among military men, is considerably higher than levels found among non-military women (Fear et al., 2007). Women were significantly more likely to have sought help from formal medical sources and significantly less frequently from informal

sources. Except for problem recognition and responding to advice, reasons for seeking help were broadly similar for men and women. Overall, perceived social support levels were very high and centered around having a friend or confidant when in need. Military commanders should be aware that increased use of women on the front line may require increased deployed provision of mental health professionals and enhanced mental health-care services at home.

DISCLOSURE STATEMENT

Norman Jones is a full-time reserve member of the British Army currently seconded to King's College London. Amos Simms is a full-time member of the British Army similarly seconded. Neil Greenberg is the Royal College of Psychiatrists Lead for Military and Veterans Health and trustee with two military charities; however he was not directed by these organisations in any way in relation to his contribution to this paper and, like Simon Wessely, is affiliated to the National Institute for Health Research Health Protection Research Unit (NIHR HPRU) in Emergency Preparedness and Response at King's College London in partnership with Public Health England (PHE), in collaboration with the University of East Anglia and Newcastle University. Ava Phillips receives funding from the Ministry of Defence but has not been instructed in any way in the production of this manuscript. The views expressed are those of the author(s) and not necessarily those of the NHS, the NIHR, the Department of Health or Public Health England.

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