

ORIGINAL ARTICLE

# Describing the profile of a population of UK veterans seeking support for mental health difficulties

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## Abstract

**Background:** Evidence suggests that veterans with mental health issues have poorer treatment outcomes than civilian counterparts. Understanding the difficulties faced by veterans could help focus treatments and improve outcomes.

**Aims:** To survey a representative sample of treatment-seeking veterans to explore their mental health needs.

**Methods:** A random sample of UK veterans who had engaged with a national mental health charity in the UK was drawn. Individuals completed questionnaires about their health, military experiences and pre-enlistment vulnerabilities.

**Results:** Four hundred and three out of six hundred (67.2%) participants returned completed questionnaires. PTSD was the most commonly endorsed mental health difficulty (82%), followed by problems with anger (74%), common mental health difficulties (72%) and alcohol misuse (43%). Comorbidity was frequent; with 32% of those with PTSD meeting criteria for three other health outcomes versus only 5% with PTSD alone.

**Conclusions:** Results indicate the complexity of presentations within treatment seeking veterans. These difficulties may partly explain the poorer treatment outcomes reported in veterans in comparison to the general public. As such, it would be prudent for interventions targeted at veterans with mental health difficulties to attempt to address the range of issues faced by this population rather than focus on a particular presenting problem.

## Keywords

Veterans, ex-service personnel, military, mental health, PTSD, depression, alcohol, help-seeking

## History

Received 13 March 2017

Revised 17 August 2017

Accepted 20 August 2017

Published online 5 October 2017

## Introduction

There is compelling evidence that indicates a higher prevalence of health issues among service personnel compared to the general public. For example, prevalence rates of substance misuse in veterans appear to be higher for both rates of smoking (26% versus 19%) and alcohol misuse (39% versus 25%) (Craig et al., 2015; Ministry of Defence, 2015). However, there is mixed evidence concerning mental health differences. One study that compared veterans to the general public, using data from the 2007 Adult Psychiatric Morbidity Survey in England, found that veterans were at no greater risk of mental health difficulties than matched controls (Woodhead et al., 2011). In contrast, another study comparing serving members of the Armed Forces and matched members of the general public, found that service personnel were nearly twice as likely to report common symptoms of mental illness (Goodwin et al., 2015). Despite the differences in these findings, it is clear from looking at the wider UK military population that mental health issues are a significant problem. Prevalence rates for common mental health difficulties and

posttraumatic stress disorder (PTSD) in UK military personnel have been reported at 20% and 4%, respectively (Fear et al., 2010).

The reasons for these differences between the health of veterans and members of the general public are unclear. Factors that appear relevant are issues that may impact on successful transition out of the military (Koenig et al., 2014; Hatch et al., 2013). Another factor could be exposure to childhood adversity and lower childhood socioeconomic status that have both been correlated with an increased risk of mental illness in later life and suggested to be more common in military populations (Clark et al., 2010; Iversen et al., 2007; Muntaner et al., 2004).

There have been a number of large-scale studies of military populations but less research has been conducted to understand the specific needs of treatment seeking veterans (Fear et al., 2010; Hoge et al., 2008; Riddle et al., 2007; Rona et al., 2009; Sundin et al., 2014). Numerous studies have described samples of veterans engaged in treatment programmes for PTSD (Forbes et al., 2008; Murphy et al., 2016b; Richardson et al., 2014; Seal et al., 2009). However, the very nature of participants being enrolled on treatment programmes for PTSD limits these samples to only including veterans meeting criteria for the disorder. As such, there is a

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paucity of data related to the needs of the help-seeking population as a whole. This gap in the literature could have implications for service planning and knowing how best to support this client group. Indeed, evidence has emerged in both US and UK samples that veterans have poorer treatment outcomes following support for PTSD than other client groups (Bisson et al., 2013; Kitchiner et al., 2012; Watts et al., 2013).

To address this gap we surveyed a random sample of veterans who were accessing treatment from a national charity in the UK that provides clinical mental health services to veterans. Participants were asked to complete a questionnaire that covered a wide range of areas. These included mental health, physical health, socio-demographics characteristics, pre-service vulnerabilities and factors relating to military service.

## Methods

### Setting

A cross-sectional design was employed for this study. Participants were recruited from a national veteran-specific mental health charity that provides clinical mental health services across the UK called Combat Stress (CS). Further details of the clinical services offered by CS have been described elsewhere (Murphy, 2016). CS was used to recruit the sample from because it offers nationwide coverage rather than being restricted to one geographic area within the UK, receives a large number of referrals each year (approximately 2600) and has been commissioned by the NHS as a national specialist trauma service for veterans.

### Participants

A random sample was selected from a population of veterans who had been received support from CS over a 12-month period. Treatment-seeking was defined as an individual who had attended a treatment appointment with CS. For example, upon receipt of a referral, all new clients are offered an initial assessment by a psychiatric nurse. Following this, individuals may either engage in support from CS or a decision is made by either the individual or service that no further support is needed. The sample was restricted to only individuals who had attended an appointment which was not their initial assessment. This was to ensure that participants would be representative of treatment-seeking veterans. Between 31st January 2015 and 1st February 2016, 3335 unique individuals had attended at least one appointment with CS. A random 20% subsample of 667 individuals was then selected. Of the 667 participants, four individuals died before the start of data collection and 63 were later removed because of insufficient address information. As a result, the final sample size was 600.

### Materials

Data was collected using an eight-page questionnaire. Instructions stated that participation was voluntary, that the researchers were independent of the clinical services at CS and details for how to opt out of the study. The questionnaire was split into five areas; socio-demographics, help-seeking

information, childhood adversity, military history and physical and mental health.

Data on socio-demographic factors included age, sex, relationship status and employment status. Childhood adversity was explored by asking participants to endorse or reject a list of 16 true or false statements related to difficult early life events. These items were taken from a longitudinal epidemiological study exploring the health and wellbeing of the UK military (Iversen et al., 2007). The section examining military history asked about which service participants had been enlisted with when they left the military, type of enlistment (regular or reservist), last rank, main role during service, areas of deployment, aged joined, length of service, year they had left the service and type of discharge (e.g. voluntary or medical).

Questions about health included measures of body mass index, smoking frequency, traumatic brain injury using the Brain Injury Screening Inventory (Murphy et al., 2015), and a list of 14 physical health complaints taken from a National Health Service screening tool used by a general district hospital (Murphy et al., 2016a). Mental health difficulties were assessed with a range of previously validated health questionnaires. PTSD was measured with the 20-item National Centre for PTSD Checklist for DSM-5 (PCL-5) (Weathers et al., 2013), symptoms of common mental health difficulties (anxiety and depression) using the 12-item General Health Questionnaire (GHQ-12) (Goldberg & William, 1998), alcohol difficulties with the 10-item World Health Organisation Alcohol Use Disorders Identification Test (AUDIT) (Babor et al., 2001) and difficulties with anger with the 5-item dimensions of anger reactions (DAR-5) (Forbes et al., 2014). Meeting case criteria was defined for the primary outcome measures using the following cut-offs; four or more on the GHQ-12 (Goldberg & William, 1998), eight or more on the AUDIT (Babor et al., 2001), 12 or more on the DAR-5 (Forbes et al., 2014) and preliminary analysis of the psychometric properties of the PCL-5 suggest a cut-off score of 38 (Sveen et al., 2016; Weathers et al., 2013).

### Procedure

Data collection was conducted between April 2016 and August 2016. Participants were mailed out questionnaires via a three-wave mail out strategy. Following this, those individuals who we had not received a response from, and who had not opted out, were entered into telephone-tracing. This process involved a research assistant making three attempts to contact individuals via the telephone to elicit a response.

### Analysis

The initial analysis assessed predictors of returning a completed questionnaire. Data available for both responders and non-responders included age, sex, relationship status, service branch (navy, army or RAF) and time since leaving the military. These variables had been identified a priori as potential predictors of response based on previous research investigating UK military personnel (Fear et al., 2010). In addition, nation of residence was included in this analysis to explore the representativeness of responders between the different UK nations. A multivariate logistic regression model

was fitted (including all of the above variables) to explore predictors of response. Response weights were then generated to account for non-response. Response weights indicated the reverse probability of responding in the sampled group and were influenced by the factors associated with a response as shown in the above analysis. Analyses were then weighted using the response weights to improve the validity of findings. This was based on the assumptions that data were missing at random and that the variables used to model non-response were correctly modelled.

Following this, analyses were restricted to responders only. Exploratory analyses were used to describe the participants' demographic variables, military factors and physical health. The main analyses assessed prevalence rates of mental health outcomes and comorbidities. Firstly, the prevalence rates of the PCL-5, GHQ-12, DAR-5 and AUDIT were calculated. For those participants meeting case criteria for each health outcome, the proportion also meeting case criteria for zero, one other, two other or three other comorbidities was calculated. Correlations and frequency of endorsing each primary health outcome were examined. The final stage of analysis was to explore variables that predicted higher scores of PTSD (PCL-5) and alcohol problems (AUDIT). This analysis was restricted to PTSD and alcohol problems, as PTSD was found to have the highest prevalence rate and alcohol problems have been identified to be a particular issue for members of the UK Armed Forces (Hotopf et al., 2006; Iversen et al., 2010; Jones & Fear, 2011; Thandi et al., 2015). Regression models were fitted between PTSD and alcohol scores and a set of variables that had been defined a priori (e.g. age, sex, employment status, etc.). These had been identified via a review of the literature. All analyses in this study were conducted using STATA 13.0 (College Station, TX).

## Results

Four hundred and three out of six hundred (67.2%) participants returned the completed questionnaires. Table 1 assessed the demographic factors associated with responding to the questionnaires. After adjustment, only age was significantly related to response. Individuals aged 45 or above appeared to be more likely to respond than veterans of a younger age.

Participants are described in Tables 1 and 2. The majority of the sample was male (95.8% versus 4.2%), aged 45 years or above (68.2% versus 31.8%), in relationships (60.8% versus 39.2%) and unemployed (68.1 versus 31.9%). 75.7% of the participants reported weight and height measurements that put their BMI's into the overweight or obese categories and 38.5% endorsed being current smokers. The mean number of physical health problems reported was 2.41 (out of possible 14) and the mean number of childhood adversities endorsed was 6.62 (out of a possible 16). Whilst the majority of the sample joined the military after the age of 18, 31.5% had joined prior to their 18th birthday. 12.6% were classified as early service leavers (ESL). This was defined as having completed less than four years full-time service. The majority of the sample had been in combat roles as opposed to non-combat roles (62.1% versus 37.9%). It was observed that five years or more had elapsed for 193/403 (45.7%) of the participants in the study between them leaving the military and first seeking support from CS. The deployment most frequently endorsed was service in Northern Ireland (61.3%), followed by Iraq since 2003 (24.9%), operations to the Balkans region during the 1990's (23.4%), Afghanistan since 2001 (19.0%), the 1991 Gulf War (13.7%) and lastly the Falklands War (10.4%).

Table 3 explored the prevalence rates of the primary health outcomes and comorbidities. The most frequently reported outcome was PTSD (82.4%), followed by problems with

Table 1. Characteristics of responders and non-responders.

	Responder <i>N</i> (%)	Non-responder <i>N</i> (%)	Adjusted odds of responding OR (95% CI)
Age group			
Less than 35years	48 (11.9)	49 (24.9)	1.00
35–44years	80 (19.9)	56 (28.4)	1.43 (0.81 to 2.53)
45years+	275 (68.2)	92 (46.7)	3.24 (1.76 to 5.99)*
Sex			
Male	386 (95.8)	190 (96.4)	1.00
Female	17 (4.2)	7 (3.6)	0.87 (0.34 to 2.23)
Relationship status			
In a relationship	245 (60.8)	102 (51.8)	1.00
Not in relationship	158 (39.2)	95 (48.2)	0.80 (0.56 to 1.16)
Service			
Army	347 (86.1)	176 (89.3)	1.00
Naval services	27 (6.7)	7 (3.6)	1.86 (0.78 to 4.46)
RAF	29 (7.2)	14 (7.1)	0.91 (0.46 to 1.81)
Years left military			
Less than 5years	48 (11.9)	33 (16.8)	1.00
5–15years	118 (29.3)	68 (34.5)	0.69 (0.26 to 1.83)
15years	237 (58.8)	96 (48.7)	0.57 (0.21 to 1.56)
Country of residence			
England	243 (60.3)	126 (64.0)	1.00
Northern Ireland	89 (22.1)	33 (16.7)	1.09 (0.67 to 1.77)
Scotland	42 (10.4)	22 (11.2)	1.01 (0.57 to 1.81)
Wales	29 (7.2)	16 (8.1)	0.86 (0.44 to 1.68)

\* $p \leq 0.05$ .

anger (74.4%), common mental health difficulties (CMD) (72.3%) and alcohol misuse (42.7%). Comorbidity appeared to be common. For example, only 4.8% of those meeting criteria for PTSD did not also meet case criteria for another primary health outcome. 15.9% of the participants with PTSD also met case criteria for one comorbidity, 47.3% had two comorbidities and 32.0% had three comorbidities. Similarly for alcohol misuse, a low number of veterans reported alcohol

misuse only (7.8%). However, a higher proportion also met case criteria from three other comorbidities (e.g. 61.2% for alcohol misuse versus 32.0% for PTSD) compared to one or two comorbidities.

Correlations and frequencies for meeting case criteria between the primary health outcomes are reported in Table 4. The strongest correlation was between PTSD and problems with anger. 71.4% of the participants who scored above the cutoff for PTSD also did so for problems with anger. This was followed by the correlation between PTSD and CMD with 69.1% scoring above cut-offs on both measures.

Factors associated with increasing severity of PTSD presentations and alcohol misuse were described in Table 5. After adjustment, several socio-demographic characteristics were associated with increasing severity of PTSD. Younger individuals, those not in relationships, not working and taking longer than five years to seek help were all associated with higher scores on the PCL-5. Associations were also observed between reporting more physical health problems or endorsing more experiences of childhood adversity and increasing severity of PTSD symptoms. A different pattern was observed for alcohol misuse. Younger individuals and those not working appeared to be at a significantly higher risk of alcohol misuse. However, the other factors noted above for PTSD were not found to predict higher levels of alcohol misuse (age, relationship status, time to seek help, physical health problems and childhood adversity).

## Discussion

In this study, we reported the profile of a national sample of UK veterans who had sought support for mental health difficulties. In comparison to the demographics of the current UK military, help-seeking veterans appeared more likely to be male and to have served in the Army. Significant proportions of participants also reported not being in employment and being single. The mean age of participants was 50.9 years old with the majority aged 45 years old and above. This contrasts with previous research of UK military populations which has suggested that younger individuals are at increased risk of experiencing mental illness (Fear et al., 2010). However, this finding may reflect the significant time it can take for veterans to seek help, as prior studies have documented that on average it takes veterans nearly 11 years after leaving service to seek support (Murphy et al., 2015). We found that

Table 2. Description of study participants.

	N (%) <sup>a</sup>
<b>Descriptors</b>	
<i>Employment status</i>	
Working	126 (31.9)
Not working	277 (68.1)
<i>BMI</i>	
Normal	90 (24.3)
Overweight	151 (38.8)
Obese	143 (36.9)
<i>Smoking status</i>	
No	256 (61.5)
Yes	147 (38.5)
Mean cigarettes per day <sup>b</sup>	17.0 (95% CI: 15.0 to 18.9)
<i>Physical health complaints</i>	
Mean number reported	2.41 (95% CI: 2.21 to 2.61)
<i>Childhood adversity</i>	
Mean number reported	6.62 (95% CI: 6.37 to 6.89)
<i>Military factors</i>	
<i>Joining age</i>	
Before age of 18	126 (31.5)
Over age of 18	277 (68.5)
<i>Early service leaver</i>	
Yes	46 (12.6)
No	357 (87.4)
<i>Role</i>	
Non-combat	155 (37.9)
Combat	248 (62.1)
<i>Time to seek help</i>	
Less than 5 years	210 (54.3)
Greater than 5 years	193 (45.7)
<i>Deployment zone<sup>c</sup></i>	
Northern Ireland	257 (61.3)
Falklands war	46 (10.4)
1991 Gulf war	58 (13.7)
Balkans operations	94 (23.4)
Iraq since 2003	91 (24.9)
Afghanistan since 2001	68 (19.0)

<sup>a</sup>Weighted percentages or means.

<sup>b</sup>Note only 138/147 of those who reported currently smoking also reported the number of cigarettes or equivalent per day.

<sup>c</sup>Participants may have deployed to multiple locations.

Table 3. Describing prevalence rates of mental health disorders and comorbidities.

	Prevalence <sup>b</sup>	% Reporting increasing number of comorbidities <sup>a</sup>			
		0	1	2	3
PTSD					
PCL-5	82.4%	4.8	15.9	47.3	32.0
CMD <sup>c</sup>					
GHQ-12	72.3%	5.8	11.8	46.1	36.3
Anger					
DAR-5	74.4%	5.2	12.9	46.3	35.6
Alcohol misuse					
AUDIT	42.7%	7.8	9.5	21.5	61.2

<sup>a</sup>Comorbidities have been defined as meeting case criteria on the other health outcomes reported in this table.

<sup>b</sup>Weighted percentages.

<sup>c</sup>CMD stands for common mental disorders.

taking longer to seek support was associated with greater symptom severity for PTSD.

Whilst the majority of participants resided in England, when compared to the 2011 consensus data for the UK, there appeared to be a higher proportion of participants residing in Northern Ireland, Scotland and Wales than expected (for example, 22% of the veteran sample resided in Northern Ireland compared to 3% of the general UK population) (Office of National Statistics, 2011). Conversely, a smaller than expected proportion of the population resided in England than may have been expected when compared to the census data (60% versus 84%) (Office of National Statistics, 2011). Based upon the available data it is difficult to know what may explain these differences and indicates that further research may be needed to explore regional variations.

In recent years there has been a research focus on veterans returning from the conflicts in Iraq and Afghanistan. In contrast to this, our findings suggest that at present the majority of help-seeking veterans had deployed on previous operations. Deployments to Northern Ireland were most frequently endorsed (by 61.3% of the sample). When veterans

of either the campaigns to Iraq or Afghanistan were combined, this only accounted for 43.9% of the participants within this study. This greater representation of a conflict that was less recent could also be in part due to the time taken for veterans to seek support following the end of service.

There seemed to be differences in the frequency of reported childhood adversity between the wider military population and those veterans who seek help for mental health difficulties. Comparison between the current study and previous work demonstrates that whilst 24.0% of the UK military reported six or more adverse childhood experiences, this increases to 69.2% in the current study of treatment seeking veterans (Iversen et al., 2007) (comparison was possible because identical measures were used in both studies). This finding suggests that those veterans who seek support for mental health difficulties post-service may have joined the military with increased levels of pre-enlistment vulnerabilities. This association between childhood adversity and adult mental health difficulties has been well established in both general and military populations (Brown & Harris, 1993; Iversen et al., 2007; Kessler et al., 1997; Molnar et al., 2001; Rona et al., 2015).

High prevalence rates of PTSD, CMD and problems with anger and alcohol misuse were observed in the help-seeking veterans in this study. In addition, comorbidity between these disorders was common. PTSD was observed to be the most prevalent mental health difficulty reported within this population. This outcome seems to be in contrast to the wider military community in the UK where CMDs are more common than PTSD (Fear et al., 2010). However, this finding may not be surprising given that PTSD can have a greater impact on daily life and hence prompt a higher proportion of sufferers to seek support. Whilst cultural differences exist

Table 4. Exploring correlations and frequencies of meeting case criteria between disorders.

	PTSD	CMD	Anger	Alcohol misuse
PTSD	1.00	69.1%	71.4%	40.2%
CMD	0.38	1.00	59.5%	33.1%
Anger	0.45	0.27	1.00	33.3%
Alcohol misuse	0.18	0.10	0.08	1.00

Note correlations are described in the lower portion of the table and frequency of meeting case criteria for two disorders in the upper portion. Percentages weighted to take into account response weights.

Table 5. Exploring factors associated with increasing scores on the PCL-5 and AUDIT.

	PCL-5 (PTSD)		AUDIT (alcohol misuse)	
	Unadjusted $\beta$ B (95% CI)	Adjusted $\beta^a$ B (95% CI)	Unadjusted $\beta$ B (95% CI)	Adjusted $\beta^a$ B (95% CI)
Age				
Per 10 years	-1.44 (-2.85 to -0.02)*	-3.23 (-4.70 to 1.76)*	-1.36 (-2.00 to -0.76)*	-1.20 (-2.00 to -0.41)*
Relationship status				
In a relationship	1.00	1.00	1.00	1.00
Not in relationship	4.71 (1.24 to 8.19)*	3.81 (0.37 to 7.24)*	4.40 (2.38 to 6.42)*	4.24 (2.39 to 6.09)*
Employment status				
Working	1.00	1.00	1.00	1.00
Not working	7.74 (3.96 to 11.5)*	7.36 (3.73 to 11.0)*	-1.57 (-3.39 to 0.26)	-0.73 (-2.69 to 1.23)
Physical health				
Per increase of 1	0.77 (-0.07 to 1.61)	0.92 (0.35 to 1.81)*	-0.63 (-1.07 to -0.21)*	-0.18 (-0.65 to 0.28)
Childhood adversity				
Per increase of 1	0.98 (0.34 to 1.61)*	0.93 (0.29 to 1.57)*	0.34 (0.03 to 0.70)	0.15 (-0.19 to 0.50)
Joining age				
Before age of 18	1.00	1.00	1.00	1.00
Over age of 18	1.42 (-2.27 to 5.11)	2.08 (-1.35 to 5.52)	-0.22 (-2.13 to 1.69)	0.21 (-1.64 to 2.07)
Early service leaver				
Yes	1.00	1.00	1.00	1.00
No	2.99 (-1.84 to 7.83)	0.28 (-4.87 to 5.46)	0.56 (-1.91 to 3.02)	-0.99 (-3.70 to 1.73)
Time to seek help				
Less than 5yrs	1.00	1.00	1.00	1.00
Greater than 5yrs	3.84 (0.53 to 7.14)*	5.95 (2.16 to 9.74)*	-1.00 (2.77 to 0.78)	0.68 (-1.16 to 2.51)

<sup>a</sup>Multivariate regression model adjusted for age, relationship status, employment status, total number of reported physical health problems, total number of reported childhood adversities, age joined military and time, early service leaver status and time to seek help.

\* $p \leq 0.05$ .

between UK and US veteran populations, PTSD has also been observed to be the most prevalent mental health condition in US veterans seeking support from the Veterans Affairs health care system (Seal et al., 2009). The data presented suggested that being younger, single or male were risk factors for high scores on measures of PTSD and alcohol misuse. When restricted to PTSD, associations were also noted between not working, having worse physical health, endorsing more experiences of childhood adversity and taking longer to seek help and more severe symptoms of PTSD.

## Implications

Our findings demonstrate that help-seeking veterans present with complex mental health difficulties in conjunction with frequent comorbidities, high rates of pre-enlistment vulnerabilities, and social and physical problems. Previous work has suggested that veterans with PTSD have worse treatment outcomes than other populations seeking help (Watts et al., 2013). One explanation for this could be that many approaches focus solely on the symptoms of PTSD whilst not taking into account the range of other difficulties present in this population (Haagen et al., 2015). These findings suggest that there may also be a need to treat comorbidities to improve health outcomes among veterans (Murphy & Busuttil, 2015; Richardson et al., 2014). Further, the frequent endorsing of childhood adversity indicates that interventions may have to take into account pre-service vulnerabilities rather than focus solely on military-related traumas. As such, interventions to support this population need to take into account the complexity of these presentations and may require a systemic approach to support the multifaceted needs of veterans pre-, during and post-service. Taking longer to seek help was also associated with a greater burden of PTSD symptoms. The association between time to seek help and poorer mental health have previously been reported in the general public (Murphy & Busuttil, 2014). Taken together, this provides evidence for the need to support individuals during their post-service transition to access support in a timely fashion.

The current study provided preliminary data on the physical health needs of veterans experiencing mental health difficulties. The findings demonstrated higher proportions of veterans with BMIs at and above the overweight range, large numbers of current smokers and associations between poorer physical health and a greater severity of PTSD symptoms. Additional research is needed to further elucidate these issues and encourage mental health service providers to support these physical health needs alongside mental health treatments.

Our findings suggest a relative imbalance in the distribution of help-seeking veterans around the UK compared with proportions of the populations living in each nation. These results imply that resources to support veterans should not be allocated based on the relative size of the general public populations of each UK nation, but rather, on the size of the help-seeking veteran population residing within each nation. If not, this could lead to a lack of resources, such as in Northern Ireland which appeared to have a higher proportion

of help-seeking veterans compared to what might have been expected.

## Strengths and limitations

Given the high response rate for the study and the lack of differences discovered between responders and non-responders, we are confident about the validity of the conclusions. However, there are a number of limitations that need to be considered when interpreting the presented data. The sample was recruited from a national mental health charity in the UK which may have resulted in a population that differs significantly in some way (e.g. because of different demographic characteristics or mental health presentations) from that of the wider help-seeking veteran population. For example, given that CS delivers a national special PTSD treatment service *it* perhaps may not be surprising that a high prevalence rates of PTSD was found within this sample. However, CS receives significant numbers of referrals each year (approximately 2600 annually) and is a recognised treatment pathway by the National Health Service (NHS) which should increase the validity of sampling from this population. The sampling strategy for this project also needs to be considered. A deliberate decision was taken to restrict the sample to only those veterans who were actively engaged with receiving clinical support from CS. Consequently, this exclusion means that no information was available for either those individuals with mental health difficulties who were unable to seek support, or those who had already completed treatment. This decision was taken in an attempt to ensure the study was focused on current treatment seeking individuals. The low number of females within the sample (17/403) restricted our ability to explore whether sex was a risk factor for more serious mental health presentations. Based on the data it is difficult to explain the low prevalence of females (4% in the sample compared to 10% currently in the Armed Forces). One explanation may be that it has previously been reported that females in the UK Armed Forces are at less risk of experiencing mental health difficulties (Fear et al., 2010). Alternatively, it could be that there are more barriers that may be preventing females from engaging in support.

On a final note, recall bias may have impacted on the participants' abilities to remember incidents of childhood adversity. For example, those who are most unwell may have recalled worse childhood experiences or failed to recall them because of current memory difficulties commonly associated with PTSD presentations. Yet, there is some evidence showing that the recall of adverse childhood experiences is reliable and not influenced by the presence of mental illness (Robins et al., 1985; Wilhelm et al., 2005). It is also important to note that the use of a cross-sectional design may have limited interpretations of causality when looking at predictors of poorer health outcomes. For instance, we found that taking longer to seek help was associated with a higher burden of PTSD symptoms. One explanation concerning directionality could be that those with more serious presentations find it harder to seek help, whilst on the other hand, it could be that taking longer to seek help results in more severe presentations.

## Conclusions

As far as we are aware, this was the first study of its kind in the UK to explore the profile of veterans who had sought support for mental health difficulties. In contrast to population studies of UK veterans, we found that in help-seeking veterans specifically, PTSD is the most prevalent mental health disorder. Evidence was also presented exemplifying that PTSD is not suffered in isolation, but rather, in combination with a number of clinical comorbidities, increased physical and social challenges and high rates of childhood adversity. Whilst limitations exist, the data presented demonstrates the complex combination of difficulties veterans are experiencing and provides suggestions for service development. Based on these findings, it seems prudent to provide interventions to support veterans that do not have too narrow a focus on PTSD alone but rather attempt to address the myriad of physical, mental and social difficulties faced by this population. For example, the use of case management to support a veteran through their treatment pathway that may involve a number of different organisations, the importance of creating a safe environment through social worker support such as resolving housing or financial issues, the potential of involving significant others (e.g. spouse or partners) in the treatment pathway or the use of dual diagnosis workers to support around substance misuse (in particular, alcohol difficulties). This is a challenging problem and more research is needed to develop a stronger evidence base to learn how to implement these changes in practice.

## Declaration of interest

DM, RA, EP and WB are paid employees of Combat Stress; the military mental health charity from which the sample for this piece of research was drawn.

## Funding

No funding was provided for this study

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