'Goodbye and good luck': the mental health needs and treatment experiences of British ex-service personnel

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Background Little is known about the psychological health or treatment experiences of those who have left the British armed forces.

Aims To describe the frequency and associations of common mental disorders and help-seeking behaviours in a representative sample of UK veterans at high risk of mental health problems.

Method A cross-sectional telephone survey of 496 'vulnerable' ex-service personnel selected from an existing epidemiological military cohort.

Results The response rate was 64%; 44% of these had a psychiatric diagnosis, most commonly depression. Those with a diagnosis were more likely to be of lower rank and divorced or separated. Just over half of those with self-reported mental health problems were currently seeking help, most from their general practitioners. Most help-seekers received treatment, usually medication; 28% were in touch with a service charity and 4% were receiving cognitive–behavioural therapy.

Conclusions Depression is more common than post-traumatic stress disorder in UK ex-service personnel. Only about half of those who have a diagnosis are seeking help currently, and few see specialists.

Declaration of interest S.W. is Honorary Civilian Advisor in Psychiatry (unpaid) to the British Army Medical Services. Funding detailed in Acknowledgements.

The war in Iraq has heightened recognition that active military service can adversely affect the mental health of some who serve. Despite this, little is known about the health of ex-service personnel in the UK. After the Falklands War in 1982, several small, selective studies demonstrated poor mental health among some returnees (O'Brien & Hughes, 1991; Orner *et al*, 1993), but little has been published on the subject since then. The majority of the available research comes from the USA and focuses on those who served in Vietnam, its emphasis being on the sequelae of combat rather than military service *per se*, and specifically post-traumatic stress disorder (Card, 1987; Kulka *et al*, 1990). Our own studies of veterans of the 1991 Gulf War, however, suggest that although mental health problems are indeed associated with ill health in the military (Iversen *et al*, 2005), post-traumatic stress disorder – despite receiving most attention – is not the most important diagnosis (Ismail *et al*, 2002). The aim of this study was to look in depth at a representative sample of UK veterans at high risk of mental health problems, and describe the frequency and associations of common mental disorders and help-seeking behaviours in a sample of veterans who had left the military and who we believed to be at heightened risk of developing mental health problems.

METHOD

Participants

The study aimed to assess mental health needs and treatment experiences of a representative sample of UK veterans, selected from a previously studied cohort as those most at risk of long-term psychological and/or social problems. The participants were drawn from the original military cohort set up at King's College London in 1995 (see Unwin *et al*, 1999; Ismail *et al*, 2002; Hotopf *et al*, 2003). The original sample consisted of three randomly selected groups of service personnel: those who served in the Persian Gulf War in 1990–1991 (n=4250), those who served in Bosnia between 1992 and 1997 (n=4250) and an 'Era' group who served but were not deployed (n=4246). About a quarter of the cohort (n=3322) were contacted again in 2001 (Hotopf *et al*, 2003). Almost all of those who took part in the 2001 survey (stage 3 of the investigation of this cohort) gave consent for further follow-up by telephone.

Our case group consisted of 701 individuals for whom we had already collected two waves of data, at baseline (1997) and at follow-up (2001). Inclusion criteria were scores of 3 or more on the 12-item General Health Questionnaire (GHQ; Goldberg & Williams, 1988) at stages 1 and 3 of our original investigation (n=636), and all those who were unemployed at stage 3, having left the services by stage 1 (n=107). Individuals fulfilling 'GHQ caseness' at stages 1 and 3 were selected on the basis of an assumption of a degree of chronicity of mental health problems, as opposed to transient distress. As the unemployed individuals were still not working 4–5 years after leaving the armed forces, chronicity of employment difficulties was assumed. Inevitably, there was overlap between these two groups: 42 of 107 individuals who were unemployed also fulfilled GHQ criteria. Members of the sample who were still serving in the armed forces at the point of last follow-up (n=205) were excluded from this study, leaving a sample group of 496. The advantages of using the existing cohort were that participants were originally randomly selected, and were therefore not seeking treatment or compensation, and that vulnerable individuals could be selected from the cohort on the basis of their previous questionnaire responses.

Procedure

All potential participants who had given consent to follow-up at last contact were contacted by letter at the start of the study. For all letters returned to the unit undelivered, electoral register searches were used in order to clarify a change of address. After a period of 4 weeks, telephone interviews conducted by two research associates commenced. The research associates were masked to any previous information collected about the individuals contacted, other than that they fulfilled criteria to participate. A list of

non-responders who had agreed to take part when last contacted but were untraceable was drawn up, and the Department for Work and Pensions sent letters to these individuals on our behalf (using up-to-date addresses) asking them to make contact to provide their new address details. Two members of the cohort were in prison, and we managed to interview one of them using a modified postal questionnaire.

Measures

The final questionnaire used a combination of existing measures and new questions arising out of our interviews with veterans and veteran organisations. Additional information included details of individuals (age, marital status) as well as details of their military experience: length of service, time elapsed since leaving, method of leaving, whether participants had been given a diagnosis of post-traumatic stress disorder (PTSD) at any time and who had made that diagnosis. We also explored participants' experiences of primary healthcare, what treatments they had received and what role specialist services played.

A modified version of the Primary Care Evaluation of Mental Disorders (PRIME–MD; Spitzer *et al*, 1994) was administered to detect the presence or absense of psychiatric disorders, according to prearranged algorithms (excluding sections on eating disorders and somatoform disorders). In addition, a short screening scale designed to detect the presence of PTSD in individuals who self-reported exposure to trauma was administered (Breslau *et al*, 1999). The scale is based on the DSM–IV diagnostic criteria for PTSD (American Psychiatric Association, 1994) and consists of a seven-item structured telephone interview schedule.

Statistical methods

Data were analysed using the Statistical Package for the Social Sciences, version 11.0. In order to undertake longitudinal analysis, several variables from our stage 3 data (2001) were included in the final analysis. The majority of results are presented as descriptive statistics with 95% confidence limits. Pre-defined comparisons were made using either χ^2- or *t*-tests where appropriate.

RESULTS

Response rate

The response rate was 63.5% (315/496). Non-responders fell into two groups: those whom we were unable to trace despite multiple attempts (25.2%) and those who refused to participate once contact was established (11.3%). These groups were combined for the purpose of a non-responder analysis (Table 1). Using data collected on these individuals in 2001, we found that non-responders had slightly higher mean GHQ scores, higher post-traumatic stress reaction (PTSR) scores and worse self-perceived health, but none of these differences reached statistical significance. Non-responders were likely to be younger and of lower rank than responders and were less likely to be married. They were more likely to have been unemployed when last followed up, but this difference did not reach significance. Gender, pre-enlistment educational

Table 1 Comparison of responders and non-responders, based on data from previous cohort survey (Hotopf *et al*, 2003)

Variable[1]	Responders (*n*=315)	Non-responders (*n*=181)	Significance test	OR (95% CI)
Gender, *n* (%)				
Male	275 (87.9)	159 (90.9)	χ^2=1.1, d.f.=1,	1.0
Female	38 (12.1)	16 (9.1)	*P*=0.4	1.3 (0.72–2.4)
Missing data	2	6		
Age, years: mean (s.d.)	39.9 (7.9)	37.6 (7.0)	*t*=3.2, d.f.=487,	
	(*n*=314)	(*n*=175)	*P*=0.02	
Marital status, *n* (%)				
Married	230 (73.7)	106 (60.9)	χ^2=8.6, d.f.=1,	1.0
Other	82 (26.3)	68 (39.1)	*P*=0.04	0.56 (0.37–0.83)
Rank, *n* (%)				
Officer	38 (13.1)	8 (4.7)	χ^2=14.6, d.f.=2,	1.0
NCO	188 (65.1)	104 (60.8)	*P*=0.001	0.38 (0.17–0.85)
Private	63 (21.8)	59 (34.5)		0.23 (0.10–0.52)
Employment status, *n* (%)				
Employed	244 (80.5)	125 (73.1)	χ^2=3.5, d.f.=1,	1.0
Unemployed	59 (19.5)	46 (26.9)	*P*=0.07	0.66 (0.42–1.0)
Serving arm, *n* (%)				
Army[2]	229 (80.1)	135 (85.4)	χ^2=2.3, d.f.=2,	1.0
Navy	21 (7.3)	7 (4.4)	*P*=0.3	1.77 (0.73–4.3)
RAF	36 (12.6)	16 (10.1)		1.3 (0.71–2.48)
Deployment group, *n* (%)				
Gulf	182 (58.0)	85 (48.6)	χ^2=5.7, d.f.=3,	1.0
Bosnia	42 (13.4)	84 (9.4)	*P*=0.1	0.58 (0.34–0.97)
Era	70 (22.3)	47 (6.9)		1.2 (0.67–2.2)
Gulf and Bosnia	20 (6.4)	9 (5.1)		1.04 (0.45–2.4)
GHQ score: mean (s.d.)	7.2 (3.4)	7.7 (3.4)	*t*=−1.5, d.f.=462,	
	(*n*=299)	(*n*=165)	*P*=0.1	
Symptom score: mean (s.d.)	20.3 (9.8)	21.5 (10.7)	*t*=−1.4, d.f.=486,	
	(*n*=313)	(*n*=175)	*P*=0.2	
PTSR score: mean (s.d.)	3.9 (1.2)	4.1 (1.3)	*t*=−1.2, d.f.=486,	
	(*n*=313)	(*n*=175)	*P*=0.2	
Perceived health score:	43.5 (25.2)	41.2 (27.3)	*t*=0.9, d.f.=485,	
mean (s.d.)	(*n*=306)	(*n*=169)	*P*=0.7	

GHQ, General Health Questionnaire; NCO, non-commissioned officer; OR, odds ratio; PTSR, post-traumatic stress reaction; RAF, Royal Air Force.
1. Comparison group is listed first.
2. Although the Royal Navy is the senior service, our comparisons are with the Army.

attainment and deployment history did not differ between the two groups.

Sample

The final study sample consisted of 315 individuals, all of whom had left the military and 98% of whom had been full-time employees; 12% were women. Their mean age was 40 years (s.d.=8.5). Almost half (49.5%) were of junior rank on leaving, 38.7% were non-commissioned officers and 11.7% were officers; 78.6% had been in the Army, 11.8% in the Royal Air Force, 7.7% in the Royal Navy/Marines and 1.9% in the Territorial Army. The average length of service was 14.3 years (s.d.=8.1) and the average time since leaving the forces was 8.3 years (s.d.=5.6). The majority (62.9%) of the sample were married, 16.3% were divorced or separated and 20.8% were single or cohabiting.

Diagnosis

On structured interview, 138/315 (43.8%) of the sample were found to have a psychiatric diagnosis. Many individuals had two or more psychiatric diagnoses, and there was a total of 313 diagnostic 'events'. Of these, 53.4% were depressive-spectrum disorders, 18.2% anxiety disorders, 16.3% PTSD and 11.8% probable alcohol dependence (Table 2). The most common depressive-spectrum disorder was major depressive disorder and the most common anxiety disorder was anxiety disorder not otherwise specified. Three-quarters of those who had PTSD (75.5%) also had a comorbid diagnosis, compared with a third (33.1%) who did not (χ^2=30.7, d.f.=1, $P\leqslant0.001$; OR=6.2, 95% CI 3.1–13). In 34.7% of PTSD cases the individual also had a diagnosis of probable alcohol dependence, as opposed to 8.1% of those without PTSD (χ^2=26.6, d.f.=1, $P\leqslant0.001$; OR=6.1, 95% CI 2.9–13). The majority of PTSD diagnoses were made by military or civilian psychiatrists (30.0% and 26.7%, respectively) rather than by primary care physicians (3.3%).

Risk factors for psychiatric diagnosis

Most participants recognised that they had difficulties; 81.2% of those with a psychiatric diagnosis reported that they had a mental health problem, compared with 20.9% of those without (Table 3). Those with a current diagnosis had higher previous GHQ scores than those without, confirming a degree of chronicity of difficulties. Those with a psychiatric diagnosis were significantly more likely to be of lower rank and divorced or separated. Gender, service arm and deployment group did not predict having a diagnosis.

Table 2 Psychiatric diagnoses

Diagnosis	*n*	Percentage of all diagnostic events (*n*=313)[1]
Depressive-spectrum disorders	167	53.4
Major depressive disorder	78	24.9
Partial remission of MDD	12	3.8
Dysthymia	59	18.8
Minor depressive disorder	13	4.2
Depression due to a physical disorder	5	1.2
Anxiety disorders	57	18.2
Panic disorder	4	1.3
Generalised anxiety disorder	26	8.3
Anxiety NOS	28	8.9
Probable alcohol dependence	37	11.8
PTSD	51	16.3

MDD, major depressive disorder; NOS, not otherwise specified; PTSD, post-traumatic stress disorder.
1. Column total is greater than 100% because of comorbidity.

In service

Almost one-third of the sample (28.9%; 90/311) self-reported that they had a mental problem while in service. People who reported problems in service were more likely to report current mental health problems (χ^2=16.2, d.f.=1, $P\leqslant0.001$; OR=2.8, 95% CI 1.7–4.6) and more likely to have a current diagnosis (χ^2=17.6, d.f.=1, $P\leqslant0.001$; OR=2.9, 95% CI 1.8–4.9). The most common problems reported in service were depression (48.3%) and 'stress' (37.9%). Half of those who had problems in service reported that they had sought help. The most common reason for not seeking help was the 'embarrassment or stigma' of consulting. Of those who did consult, 69.6% reported receiving help from their medical officer (military primary care) and 56.5% went on to see a psychiatrist.

Current help-seeking

Of those who self-reported mental health problems, 58.4% were currently seeking help. Those who sought help were no more likely to have a diagnosis on the PRIME–MD than who did not; however, those who were help-seeking tended to have higher previous GHQ scores (measured 1 year previously) than those who were not (Table 4). Those who were currently unemployed were more likely to seek help than those who were not. Gender, age, marital status, rank and service arm did not appear to influence help-seeking behaviour. Only 28.2% of the sample had sought advice from a service charity. Those who contacted a service charity had higher mean GHQ score than those who did not (8.4 *v.* 6.8, P=0.01).

Most veterans sought help from their general practitioners (86.9%), with a minority seeing a psychiatrist (28.7%) or a psychologist (8.1%). Those who were seeing a psychiatrist had slightly higher mean scores on their previous GHQ assessment than those who were not (mean 9.3 *v.* 8.6), but this difference did not reach significance. Only 6.6% had received input from a community psychiatric nurse during their period of mental ill health.

Among those who reported problems who were not help-seeking (n=79), the most common reasons for not seeking help were 'I could deal with it myself' (72%) and the perceived stigma and embarrassment of consulting (20%).

Treatment

Of the help-seekers, 101/122 (83%) received some form of treatment. In 72% of cases this was overseen by primary care, with only 9% being organised by a psychiatrist. Those with alcohol dependence (70% in treatment) and PTSD (73% in treatment) were less likely to be treated than those with depression (76% in treatment). Of the treated sample, 70% reported receiving medication, 48% received non-directive counselling, 9% received psychotherapy and 4% received cognitive–behavioural therapy.

Employment

With regard to employment status 14.0% (42/299) of the sample described themselves as unemployed currently. Of those

Table 3 Characteristics of UK veterans with and without a psychiatric diagnosis

Variable[1]	PRIME–MD or PTSD diagnosis		Significance test	OR (95% CI)
	Present (*n*=138)	Absent (*n*=177)		
Self-report of mental health problems, *n* (%)				
Not reported	26 (18.8)	140 (79.1)	χ^2=112.9, d.f.=1,	1.0
Reported	112 (81.2)	37 (20.9)	$P \leqslant 0.001$	16 (9.0–28)
Previous GHQ score: mean (s.d.)				
	8.1 (3.5) (*n*=133)	6.4 (3.1) (*n*=165)	*t*=−4.3, d.f.=296, $P \leqslant 0.001$	
Gender, *n* (%)				
Male	120 (87.6)	154 (88.0)	χ^2=0.1, d.f.=1,	1.0
Female	17 (12.4)	21 (12.0)	*P*=1	1.0 (0.49–1.9)
Missing data	1	2		
Age, years: mean (s.d.)	39.2 (8.2) (*n*=138)	40.7 (8.7) (*n*=179)	*t*=1.8, d.f.=311, *P*=0.1	
Marital status, *n* (%)				
Married	72 (52.2)	125 (71.4)	χ^2=15.1, d.f.=4,	1.0
Divorced	23 (16.7)	15 (8.6)	*P*=0.04	12.7 (1.3–5.4)
Separated	9 (6.5)	4 (2.3)		3.9 (1.2–13)
Single	22 (15.9)	24 (13.7)		1.6 (0.83–3.1)
Cohabiting	12 (8.7)	7 (4)		3.0 (1.1–7.9)
Rank, *n* (%)				
Officer	8 (5.8)	29 (16.4)	χ^2=15.6, d.f.=2,	1.0
NCO	46 (33.3)	76 (42.9)	$P \leqslant 0.001$	2.2 (0.93–5.2)
Private	84 (60.9)	72 (40.7)		4.2 (1.8–9.8)
Employment status, *n* (%)				
Unemployed	21 (16.5)	21 (12.2)	χ^2=1.1, d.f.=1,	1.0
Employed	106 (83.5)	151 (87.8)	*P*=0.3	0.71 (0.37–1.4)
Number of jobs since leaving: mean (s.d.)	1.8 (1.1) (*n*=127)	1.4 (0.8) (*n*=171)	*t*=−3.5, d.f.=295, $P \leqslant 0.001$	
Longest period of unemployment, months: mean (s.d.)	8.0 (10.7) (*n*=55)	7.5 (11.0) (*n*=62)	*t*=−2.5, d.f.=115, *P*=0.8	
Serving arm, *n* (%)				
Army	106 (78.5)	135 (78.9)	χ^2=4.3, d.f.=5,	1.0
Navy	8 (5.9)	13 (7.6)	*P*=0.5	0.78 (0.31–2.0)
RAF	16 (11.9)	22 (12.9)		0.93 (0.46–1.9)
TA	5 (3.7)	1 (0.6)		6.4 (0.73–55)
Deployment group, *n* (%)				
Gulf	83 (60.1)	99 (56.3)	χ^2=1.6, d.f.=3,	1.0
Era	15 (10.9)	27 (15.3)	*P*=0.7	0.66 (0.33–1.3)
Bosnia	32 (23.2)	38 (21.6)		1.0 (0.58–1.8)
Gulf and Bosnia	8 (5.8)	12 (6.8)		0.89 (0.31–2.0)
Educational level, *n* (%)				
Low	104 (81.9)	136 (80.0)	χ^2=0.2, d.f.=1,	1.0
High	23 (18.1)	34 (20.0)	*P*=0.8	0.89 (0.45–1.6)

GHQ, General Health Questionnaire; NCO, non-commissioned officer; OR, odds ratio; PRIME–MD, Primary Care Evaluation of Mental Disorders; PTSD, post-traumatic stress disorder; RAF, Royal Air Force; TA, Territorial Army.
1. Comparison group is listed first.

participants who were unemployed at stage 3 of the original study, 36.4% had become employed in the past year. The great majority (95.9%) who were employed at the point of last contact remained in full-time employment. People who were unemployed were no more likely to have a diagnosis than those who were not. Although the unemployed had slightly higher GHQ scores on average than those who were working (7.8 *v.* 7.0), this difference was not significant. Those with a current diagnosis had experienced longer periods of unemployment and had greater job transiency than those without a current diagnosis.

Discussion

The important findings from this study are twofold. First, it confirms that the most important diagnoses in ex-service personnel are classic psychiatric disorders rather than specific service-related psychiatric injury. Second, only approximately half of those who have a diagnosis are seeking help currently, and few of those who have consulted are receiving specialist help.

Diagnoses

The most common disorders were depressive episodes and anxiety syndromes. Data from the USA confirm that the most common psychiatric disorders in help-seeking veterans are alcohol and substance-related disorders, adjustment disorders, mood disorders (mostly major depressive disorder) and personality disorders, with only 5.6% of participants in a recent out-patient survey fulfilling criteria for PTSD (Hoge *et al*, 2002).

In our study, participants with PTSD almost invariably had a comorbid diagnosis, a similar finding to previous studies (Helzer *et al*, 1987). Despite the fact that most people who receive a diagnosis of PTSD initially present to primary care settings (Dickinson *et al*, 1998), in our sample this diagnosis was almost exclusively made by psychiatrists. Even then, only about half of those found to have PTSD on structured interview had been given this diagnosis by any doctor, despite the occupational risk of PTSD in this group.

Vulnerability factors

The most vulnerable people in this cohort were single, came from the lower ranks and appeared to be more likely to have

Table 4 Comparison of UK veterans who were help-seeking *v.* those who were not, among those who reported mental health problems (n=202)

Variable[1]	Help-seeking (n=123)	Not help-seeking (n=79)	Significance test	OR (95% CI)
Current diagnosis, *n* (%)				
Absent	45 (36.6)	31 (39.7)	χ^2=0.2, d.f.=1,	1.0
Present	78 (63.4)	47 (60.3)	P=0.8	1.1 (0.60–2.0)
Previous GHQ score: mean (s.d.)	8.8 (3.1)	6.5 (3.4)	t=−4.8, d.f.=189,	
	(n=116)	(n=75)	$P \leqslant 0.001$	
Gender, *n* (%)				
Female	18 (14.8)	7 (8.9)	χ^2=1.5, d.f.=1,	1.0
Male	104 (85.2)	72 (91.1)	P=0.3	0.56 (0.22–1.4)
Missing data	1	0		
Age, years: mean (s.d.)	39.6 (8.5)	39.3 (7.9)	t=−0.2, d.f.=200,	
	(n=123)	(n=79)	P=0.9	
Marital status, *n* (%)				
Married	62 (50.8)	54 (68.4)	χ^2=8.5, d.f.=4,	1.0
Divorced	17 (13.9)	10 (12.7)	P=0.08	1.5 (0.62–3.5)
Separated	10 (8.2)	2 (2.5)		4.4 (0.91–21)
Single	23 (18.9)	11 (13.9)		1.8 (0.81–4.1)
Cohabiting	10 (8.2)	2 (2.5)		4.4 (0.91–21)
Rank, *n* (%)				
Officer	15 (12.2)	5 (6.3)	χ^2=3.4, d.f.=2,	1.0
NCO	41 (33.3)	35 (44.3)	$P \leqslant 0.2$	2.6 (0.85–7.8)
Private	67 (54.5)	39 (49.4)		1.75 (0.59–5.2)
Employment status, *n* (%)				
Unemployed	23 (20.2)	5 (6.7)	χ^2=6.5, d.f.=1,	1.0
Employed	91 (79.8)	70 (93.3)	P=0.01	0.28 (0.10–0.78)
Serving arm, *n* (%)				
Army	97 (81.5)	59 (74.7)	χ^2=5.8, d.f.=4,	1.0
Navy	8 (6.7)	6 (7.6)	P=0.3	0.81 (0.27–2.5)
RAF	10 (8.4)	13 (16.5)		0.47 (0.19–1.1)
TA	4 (3.4)	1 (1.3)		2.4 (0.27–23)

GHQ, General Health Questionnaire; NCO, non-commissioned officer; OR, odds ratio; RAF, Royal Air Force; TA, Territorial Army.
1. Comparison group is listed first.

served in the Army. Data released by the Defence Analytical Services Agency on suicide in the military confirms that although the majority of military personnel have lower rates of suicide than civilians, young, male Army recruits have higher rates than their civilian counterparts (Fear, 2003). Work among Norwegian peacekeepers has highlighted 'being single' as an important post-military risk factor for completed suicide (Thorsen *et al*, 2003). This selective vulnerability appears to be mirrored in the veteran population.

Help-seeking

The reluctance among study participants to seek help is striking, especially in terms of self-report of help-seeking during service. Only half of those who reported problems while in service admitted to seeking help, with this proportion only increasing slightly when individuals encountered problems as veterans. This is comparable with civilian rates of consulting with common mental disorders of 39–50% (Meltzer *et al*, 2003). As with the civilian literature (Meltzer *et al*, 2003), the most common reason for veterans not seeking help was a sense of resilience and stoicism: 'It's a problem I should be able to deal with myself'. The nature of military culture, with its emphasis on resilience, courage and masculine stereotypes almost certainly amplifies this reticence. Those who reported problems in service also reported the embarrassment and stigma of admitting a need for help. However, for those who reported seeking help while still in service, access to a psychiatrist was more likely (56.5% *v.* 28.7% in veterans), perhaps because access to all medical services is easier for serving personnel.

Unemployment and help-seeking

The finding that unemployment predicts help-seeking is an interesting one, which has been reported previously (Verhaak, 1993; Bebbington *et al*, 2000*b*). It may be that those in employment are more reticent about being labelled as having mental health problems than the unemployed, or that those who are unemployed have more severe problems and hence are more motivated to seek help, although our study was not able to demonstrate this conclusively. Finally, full-time employment may lead to reduced time for consulting and neglect of health needs.

Treatment

Most who sought help used primary care, and only a minority had contact with specialist services. The majority of those who were unwell were receiving treatment from their general practitioner in the form of (antidepressant) medication. Only a minority saw a psychiatrist or other mental health professional, and the advice and support that the veteran charities provide was not often accessed. Despite good evidence of benefit for psychological treatments for depression and PTSD, only a minority of participants who sought help were receiving these interventions, and only 4% had been offered the best evidence-based treatment, cognitive–behavioural therapy. There was a sense that even those who had seen a psychiatrist were not engaged with ongoing service provision; few of those with one or more diagnoses had community psychiatric nurse input. Once again, veterans' experiences appear to mirror those of the general civilian population with common mental disorders (Bebbington *et al*, 2000*a*,*b*); Andrews *et al*, 2001).

Implications

There are two major policy implications for this work. First, ex-service personnel are reluctant to seek help, both while in service and after leaving. The military therefore should continue to encourage a culture in

which consulting about symptoms is acceptable – a cultural shift that will benefit individuals even after they have left the armed forces. This needs to be balanced against the need to reinforce personal resilience, an essential quality for members of the armed forces. Second, it is now well established that untreated mental health problems are associated with profound functional and social disability and suffering for the individual, as well as increased use of medical services, and higher costs borne by individuals and healthcare institutions alike. Therefore those who do consult should have access to high-quality, effective treatments delivered as swiftly as possible. Some countries, most notably the USA and Australia, have established separate healthcare systems dealing with veterans after they leave the armed forces. In the UK our universal access to healthcare means we do not have such a system. It is a question of policy as to whether military service, with all its attendant risks, entitles veterans to better access to specialist services than those who have not served in the military. At present, however, we are not meeting the treatment needs of this group.

CLINICAL IMPLICATIONS

- Depression and anxiety are common diagnoses in former members of the armed forces.
- Only half of ex-service personnel with mental health problems seek help.
- Of those who sought help, only a minority were in contact with service charities, and less than 5% received cognitive–behavioural therapy; general practitioners are responsible for the vast majority of care.

LIMITATIONS

- The study's response rate of 64% introduced response bias.
- We might have missed the most socially excluded of this sample, such as the homeless.
- The study relied on self-report of symptoms and service use.

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(First received 13 July 2004, final revision 27 October 2004, accepted 30 October 2004)

Limitations of this study

As with any follow-up study, the response rate is of paramount importance. The most disappointing response rates seen in longitudinal studies are in young, single, male, urban cohorts (Eaker *et al*, 1998), and this is an accurate description of the recent ex-military population in the UK. In addition, the sample was selected on the basis of chronic mental health problems and/or social exclusion, which adds to the difficulties of following individuals up.

Our analysis of non-responders for this study showed that there were minimal differences between those who were sampled and those who were lost to follow-up, therefore we would anticipate that the response rate of 64% introduced only limited bias. The small differences observed all point to non-responders being slightly more unwell and symptomatic than responders, suggesting that the true situation, if anything, might be slightly worse than we report. In addition, it should be pointed out that the sample group itself (non-responders included) is not a random selection of vulnerable veterans. A certain degree of compliance has been necessary for participants to make it this far; they had all opted to take part in both stage 1 and stage 2 of our original study, which achieved response rates of 70% and 75% respectively after vigorous tracing (Hotopf *et al*, 2003). It is likely, therefore, that this sample is less socially excluded and less unwell than a random sample of veterans might be. It is certainly true that the severely socially excluded minority (e.g. the homeless) of this cohort have been missed at each stage of the study.

By necessity, any study that relies on retrospective report is vulnerable to recall bias. In addition, the measures of previous mental health problems and of current help-seeking and treatment were based on self-report; a more accurate method would have sought objective corroboration of individual's treatment history using medical record verification. However, previous studies have shown that self-report of service use has acceptable accuracy (Golding *et al*, 1988).

Finally, this study draws on a cohort of those who were serving in the armed forces at one point in time, in 1991. It therefore captures a 'snapshot' of the military at that time. The research findings may not be applicable to earlier or later military cohorts.

ACKNOWLEDGEMENTS

We thank Dr Anne Braidwood and her staff at the Department for Work and Pensions for assistance in tracking participants, and finally the participants for their patience in once again sharing their experiences with us. The original cohort was funded by the US Department of Defense and subsequently by the Medical Research Council, with additional support from the Ministry of Defence. This follow-up study was funded by the Ministry of Defence as part of a commissioned report entitled *Improving Cross-departmental Support and Service Delivery for UK Veterans* (Wessely *et al*, 2003).

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