Mental Health within the UK Armed Forces

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Introduction

Life in the modern UK armed forces

Choosing a career within the military has many positive and negative factors associated with it. For instance, many recruits join as young adults when they are beginning to shape their own values, beliefs and attitudes about their self, world and others. The armed forces (AF) culture socialises these young adults, leading them to adopt military values and ideals as their own which they will probably carry for the rest of their life (Office of National Statistics 2008).

Military life can be described as a ‘great leveller’ (Humber Foundation Trust NHS Hull 2010), particularly for those who have come from disadvantaged backgrounds, often allowing them to enjoy a more favourable life pathway. Many service personnel go on to develop close relationships and bonds that are formed with colleagues in order that they can rely on each other in times of crisis. Military training also promotes strict conformity to high standards of behaviour, in terms of discipline, punctuality, orderliness, cleanliness and obedience.

Other social and economic reasons for joining the armed services include personal improvement via learning new skills and often a trade with job security and full-time employment. It also allows for extensive travel opportunities to experience different parts of the world and to do something different (SAMH 2009).

There is, however, a downside to a military lifestyle which brings with it unique concerns. Major issues include adjustment to an often highly mobile lifestyle in foreign lands where there may be noticeable differences in language, culture, isolation from civilian community and extended family support, adjustment to military rules, regulations and frequent family separations (Black 1993). Other factors may also compound these stressors including difficulties for the veteran’s spouse and children of serving personnel. Spouses may have difficulty finding and securing a local job, bringing up children single handed for extended periods during deployments and managing the varied household duties (Martin 1984).

The Government, in a recent cross party agreement entitled ‘The Nation’s Commitment to the Armed Forces Community’, aims to stop any disadvantage that being in the armed forces brings to serving personnel and their families (Ministry of Defence 2009a). For instance, service personnel have often complained about barriers to obtaining a mortgage, opening a bank account, finding a dentist, accessing benefits, applying for social housing, or applying for residency or citizenship for themselves or their dependents. These issues have now been highlighted and policies are being considered/developed to minimise future disadvantage occurring (Ministry of Defence 2008, Ministry of Defence 2009a) with a pledge from the current UK Prime Minister that that the military covenant will be made law (Ministry of Defence 2010b).

Who goes into the military?

There is a lack of demographic data and official statistics to describe definitively where recruits to the AF hail from, although many regiments have historical regional areas of recruitment. These are often situated within areas of economic and social deprivation such as the North East of England, the large cities in the UK and the South Wales’ Valleys. The
AF offer potential to young people that is often not available to them if they stay in their communities (Fossey 2010).

Childhood Factors/Early Adversity

On the whole, the AF recruits individuals who are generally young and physically fit from all backgrounds, regardless of marital status, race, ethnic origin, religious belief or sexual orientation (Ministry of Defence 2009b). Individuals with poor health are largely prevented from joining the AF, meaning that serving personnel are on the whole healthier than the rest of the population (King’s Centre for Military Health Research 2010). Joining the AF becomes a very positive experience for many young people who might otherwise have followed a very different path (Fossey 2010).

There is a common view that some new recruits to the AF, particularly the army, have come from dysfunctional family backgrounds and/or poor employment opportunities, and use the AF as a means of escape from such social environments (Johnstone 1978). The decision to join the AF may also appeal to individuals with certain personality traits, such as impulsivity and sensation-seeking. It is believed that these traits are also likely to be associated with pre-enlistment psychological vulnerability, and one may expect this group to be at a higher risk of developing potential mental health problems due to being predisposed by their early life experiences and stressful AF demands (Brodsky et al. 2001).

Iversen et al (2007b) examined the association between self-reported childhood vulnerability and later health outcomes in a large randomly selected UK male military cohort. Data were collected from the first stage of an ongoing cohort study comparing Iraq veterans and non-deployed UK military personnel. Male regular AF participants completed a large questionnaire (n = 7937). The results highlighted pre-enlistment vulnerability as being associated with being in the army, a low educational achievement, coming from the lower ranks and being single. Pre-enlistment vulnerability such as a ‘family relationships’ factor reflecting the home environment and an ‘externalising behaviour’ factor reflecting behavioural disturbance, was associated with a variety of negative health outcomes.

Military Mental Health Care

The model of forward psychiatry developed during the First World War continues to provide the basic principles upon which current military mental health policy is based on for treating service personnel. There is some empirical evidence that this retains service personnel at the front line and reduces post-traumatic stress disorder (PTSD) rates (Solomon and Benbenishty 1986).

Forward psychiatry refers to the principles of PIES, Proximity—the treatment of personnel somewhere near the front line; Immediacy—early behavioural intervention e.g. ensuring that the individual gets a substantial rest and food; Expectancy—by installing a sense of confidence in those who are feeling the effects of excessive pressure that their feelings are normal, controllable and time limited; Simplicity—simple strategies such as encouraging rest, protection from the worst of the battle, from the media and talking to their colleagues.

Military mental health care values the concepts of proper preparation of service personnel coupled with effective early treatment and return to duty as soon as possible as the main factors of good psychological management of service personnel. An emphasis on physical training that prepares personnel for the mission ahead with an emphasis on encouraging individuals to face their fears and overcome them. This entails psychoeducation delivered by mental health professionals embedded within the battle group to increase its use and reduce
stigma with an emphasis on the normalisation of anticipatory battle anxiety and post-incident stress by promoting rest, simple stress reducing techniques and encouraging the use of social support from various others including the medical staff, padres and the chain of command (Greenberg et al. 2007).

**Signature injuries of war**

Following major conflicts there often appears a unique set of symptoms that military health services have to respond to. Jones et al. (2002) conducted an historical analysis from the Boer war 1899-1902 to the 1990/91 Gulf war with the aim of describing any post-war syndromes identified in military personnel. The authors reviewed 1,856 military and medical records of service personnel randomly selected from existing war pension files awarded from 1872 and from the current Medical Assessment Programme (MAP) initially set up to examine Gulf War (1990/91) veterans in St Thomas’ Hospital, London. They were interested in patterns of symptom clusters and their relationship to specific wars, diagnosis given at the time, predisposing physical illness, exposure to combat and the service personnel’s changing attributions for their post-combat disorder, and patterns of symptoms cluster.

The authors described three varieties of post-combat disorder: a) a debility syndrome (associated with the 19th and early 20th centuries); b) somatic syndrome (related primarily to the First World War); and c) a neuropsychiatric syndrome (associated with the Second World War and the First Gulf War 1991 conflict). See Table 1 below for a breakdown in the total number of service personnel by war and diagnosis.

**Table 1. War syndromes identified from war pensioners for 1856 British Service Personnel**

<table>
<thead>
<tr>
<th>War and disorder</th>
<th>Total number of cases by war and diagnosis</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Victorian Campaigns (1854-1895)</strong></td>
<td></td>
</tr>
<tr>
<td>1. Palpitation</td>
<td>19</td>
</tr>
<tr>
<td>2. Debility</td>
<td>9</td>
</tr>
<tr>
<td><strong>Boer War (1899-1902)</strong></td>
<td></td>
</tr>
<tr>
<td>1. Disorder Action of the Heart</td>
<td>200</td>
</tr>
<tr>
<td>2. Rheumatism</td>
<td>200</td>
</tr>
<tr>
<td><strong>First World War (1914-1918)</strong></td>
<td></td>
</tr>
<tr>
<td>1. Disorder Action of the Heart</td>
<td>200</td>
</tr>
<tr>
<td>2. Neurasthenia</td>
<td>200</td>
</tr>
<tr>
<td>3. Gassed</td>
<td>167</td>
</tr>
<tr>
<td><strong>Nurses</strong></td>
<td></td>
</tr>
<tr>
<td>1. Disorder Action of the Heart</td>
<td>24</td>
</tr>
<tr>
<td>2. Neurasthenia</td>
<td>49</td>
</tr>
<tr>
<td><strong>Second World War (1939-1945)</strong></td>
<td></td>
</tr>
<tr>
<td>1. Effort syndrome</td>
<td>67</td>
</tr>
</tbody>
</table>
It appears that the era in which the war occurred was the best predictor of cluster membership. In other words, the authors concluded, all modern wars over the last 150 years have been linked with a particular set of symptoms, labelled a syndrome that is best described as ‘medically unexplained’. These syndromes appear to be influenced by advances in medical science at the time of the particular war, changes in the nature of warfare, the terms used to describe them, explanations offered by service personnel and doctors and underlying cultural forces. The authors argue that future war syndromes should be described as an understandable pattern of normal responses to the physical and psychological stress of war, which may in turn allow for better management of these distressed service personnel (Jones et al. 2002). Following the recent conflicts in Afghanistan (Operation HERRICK) and Iraq (Operation TELIC), mild traumatic brain injury (mTBI) appears to be the latest post combat medical signature injury reported in the military health literature (King’s Centre for Military Health Research 2010). This may be due to the increased reporting in the media and the US Department of Defence and Department of Veterans Affairs’ screening program to detect cases of mTBI.

A recent study (Hoge et al. 2008) of 2525 returning Iraq US veterans, reported that 124 (4.9%) had injuries resulting with loss of consciousness, 260 (10.3%) injuries with altered mental status and that 435 (17.2%) reported other injuries during deployment. Of those reporting loss of consciousness, 43.9% met criteria for post-traumatic stress disorder (PTSD), as compared with 27.3% of those reporting altered mental status, 16.2% with other injuries, and 9.1% with no injury. Those with mTBI (loss of consciousness) were significantly more likely to report poor general health, missed workdays, medical visits and a high number of somatic and post-concussive symptoms than were soldiers with other injuries.

Following adjustment for PTSD and depression, mTBI brain injury was no longer significantly associated with these physical health outcomes or symptoms, except for headache. Mild traumatic brain injury occurring among soldiers deployed in Iraq is strongly associated with PTSD and physical health problems 3 to 4 months after the soldiers return home. The authors argue that PTSD and depression are important mediators of the relationship between mTBI and physical health problems (Hoge et al. 2008). The diagnosis of mTBI appears to be more common in the US combat personnel than that observed in UK military, and may be due in part to the label mTBI having a negative connotation than the more common description ‘concussion’ (King’s Centre for Military Health Research 2010).
Presenting complaints at MoD's Departments of Community Mental Health

All service military personnel are able to access one of the MoD’s Departments of Community Mental Health (DCMH). The Defence Mental Health Services operates 15 DCMHs in the UK and six more (Cyprus, Germany, and Gibraltar).

The role of Defence Mental Health Services (DMHS) is to carry out clinical, educational and advisory services to both primary care and the military chain of command. Their aim is to provide timely assessment and evidence-based treatment to maximise operational and occupational capability and, for personnel who cannot be rehabilitated back to their role, to ensure they receive a smooth transition back to civilian life. The DCMH teams are multidisciplinary in their approach to care delivery (Gould et al. 2008) and have a lower threshold of accepting referral than would be seen in a traditional civilian NHS community mental health team (Corbet et al. 2007).

Service personnel who require psychiatric in-patient acute care are currently transferred to the NHS in-patient care contractor when necessary. This is provided in dedicated psychiatric units through a central MoD contract with a group of NHS Trusts, led by the South Staffordshire and Shropshire Healthcare NHS Foundation Trust. The local DCMHs maintain close working liaison with the NHS Trusts to ensure that all military elements relating to an inpatient care and management are addressed. These arrangements mean that the majority of service personnel can receive treatment as close as possible to their parent units (Defence Analytical Services and Advice, 2010).

Presenting complaints at MOD Departments of Community Mental Health April - June 2010

During the three-month period April – June 2010, 1,337 British serving personnel were assessed at military DCMHs, representing a rate for the period of 6.6 per 1,000 strength. Of these, 940 (70%) new episodes of care for mental disorder were identified within UK AF personnel, representing a rate of 4.7 per 1,000 strength. For the 940 personnel assessed under a new episode of care with a mental disorder, rates for Army and RAF personnel were significantly higher than for Royal Navy and Royal Marines personnel. The rates for other ranks were significantly higher than for officers, and for females. Comparing those deployed to Iraq 2003-2009 (Operation TELIC) and/or to Afghanistan (Operation HERRICK) and those not deployed to either operation, there was no significant difference in the rate of overall mental disorder. The rate of neurotic disorder was significantly higher among those who had deployed on HERRICK. The rate of PTSD was significantly higher among those who had deployed. However, PTSD remained a rare condition, affecting 0.3 per 1,000 strength (N=61) during this three-month period (Defence Analytical Services and Advice, 2010).

Table 2. Initial assessments at Defence Mental Health Service 2009 by ICD-10 diagnosis.

<table>
<thead>
<tr>
<th>ICD-10 Grouping</th>
<th>Number</th>
<th>Rate</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>All</td>
<td>4482</td>
<td>22.4</td>
<td>(21.8 - 23.1)</td>
</tr>
<tr>
<td>Cases of Mental Disorder</td>
<td>3103</td>
<td>15.5</td>
<td>(15.5 – 16.1)</td>
</tr>
<tr>
<td>Psychoactive substance use due to alcohol</td>
<td>288</td>
<td>1.4</td>
<td>(1.3 – 1.6)</td>
</tr>
<tr>
<td>Mood disorders</td>
<td>707</td>
<td>3.5</td>
<td>(3.3 – 3.8)</td>
</tr>
<tr>
<td>depressive episode</td>
<td>648</td>
<td>3.2</td>
<td>(3.0 – 3.5)</td>
</tr>
<tr>
<td>Neurotic disorders</td>
<td>1866</td>
<td>9.3</td>
<td>(8.9 – 9.8)</td>
</tr>
<tr>
<td>PTSD</td>
<td>140</td>
<td>0.7</td>
<td>(0.6 – 0.8)</td>
</tr>
<tr>
<td>adjustment disorder</td>
<td>1121</td>
<td>5.6</td>
<td>(5.3 – 5.9)</td>
</tr>
<tr>
<td>Other mental disorders</td>
<td>242</td>
<td>1.2</td>
<td>(1.1 – 1.4)</td>
</tr>
<tr>
<td>No Mental disorder</td>
<td>1379</td>
<td>6.9</td>
<td>(6.5 – 7.3)</td>
</tr>
</tbody>
</table>
Admissions to the MoD's In-patient Contractor

During the three-month period April - June 2010, 61 patients were admitted to the MoD's in-patient NHS care contractor representing a rate of 0.3 per 1,000 strength. Forty-eight of these individuals had been seen at a DMHS at some point prior to their admission. There were no significant differences in admission rates between the three services, males and females, officers and other ranks and or between those deployed on Operations TELIC and/or HERRICK and those who had not been deployed (Defence Analytical Services Advice 2010).

War Pensions scheme and the Armed Forces compensation scheme

Some AF individuals who become ill or are injured and who do not respond to medical treatment or rehabilitation are medically discharged. This route out of the AF is usually a result of a number of specialists (medical, occupational, psychological, personnel, etc) coming to the conclusion, via a medical board, that an individual is suffering from a medical condition that pre-empts their continued service (Ministry of Defence 2010c). There are currently two AF pension schemes for serving military personnel. The first was introduced in 1975 (AFPS 75) and closed for new entrants on the 6th April 2005 to be replaced with the Armed Forces Compensation Pension Scheme (AFCPS) 6th April 2005 (Serving Personnel and Veterans Agency 2008).

Leaving the Armed Forces

The majority of individuals leaving the AF each year will have no mental health problems from multiple deployments within their military service (Hotopf et al. 2006) (King's Centre for Military Health Research 2010). Reasons for leaving the AF include: the end of the service contract; medical or administrative reasons; civil conviction; lack of physical fitness; financial mismanagement; persistent poor conduct; and failing a random drug test. Most experience a successful transition to civilian life and take with them valuable skills learnt in the AF (Fossey 2010).

However, within the UK there is a lack of reliable data on what happens to serving personnel when they leave service and become a veteran, and how they fare in the civilian employment environment. Iversen et al, (2005) examined this issue by analysis of an existing cohort of 8,195 service personnel from an ongoing longitudinal survey which started in 1995. The authors used a subset, which included those that had served in the AF in 1991 but have since left and returned to civilian life. A third of the sample had been deployed to the first Gulf War (1990/91), Bosnia (1992-1997) and the final group was termed an "Era" control group (individuals in the AF but did not deploy to Gulf War or Bosnia). The results demonstrated that most of the group did well when they left the AF, with 87.5% achieving full-time employment status.

The authors suggested that there may be a ‘medal effect’ following a tour of duty in the AF and that future employers are impressed by combat military experience provided one comes home ‘well’. Conversely, those service personnel whose mental health was poor whilst serving were likely to become the most vulnerable to being socially excluded or enduring hardship, e.g. being unemployed with a chronic course with little evidence of a reduction in ill health after leaving the armed forces (Iversen et al. 2005).

A cross-sectional telephone survey of 496 ‘vulnerable’ ex-service personnel selected from an existing epidemiological military cohort achieved a response rate of 64%. Of these, 44% had been diagnosed with a psychiatric diagnosis, most commonly depression. Ill veterans were more likely to be separated or divorced and from the lower ranks. Of those with self-reported mental health problems, only just over half were currently seeking help, mostly from
their primary care physician. The commonest forms of treatment offered were medication and 4% out-patient cognitive-behavioural therapy. Almost a third (28%) were receiving some form of support from a service charity (Iversen et al. 2005).

Veterans within the Criminal Justice System

In recent years there has also been considerable debate and concern that many veterans end up within the criminal justice system (CJS) having offended in some way, due to problems associated with transition back to civilian life, homelessness, unemployment, relationship breakdown, and substance misuse (NAPO 2008, Fletcher 2009). A recent inquiry by the Howard League for Penal Reform (2010) reported that veterans offend several or many years after leaving the AF and go on to commit serious violent or sexual crimes. The inquiry reported that:

- Veterans are less likely to be in prison than the general population
- Over 99% of veterans in prison are male
- Veterans are likely to be older than non-veterans
- Veterans are more likely to violent
- Veterans are more likely to be sentenced for sexual offences (The Howard League for Penal Reform 2010).

The UK Government currently estimates that the true figure is 3.5% of English and Welsh prisoners who have served in AF (Ministry of Defence 2010a), although the National Association of Probation Officers (NAPO) report veterans account for 9.1% which includes veterans serving community supervision orders (NAPO 2008). The reasons why so many veterans enter the CJS are unclear and further research is currently ongoing. Possible reasons may relate to the individuals’ dysfunctional early life experiences which made the military an attractive career choice in the first place (Iversen et al. 2007).

Health provision for veterans post-discharge

Within the UK, which has a standing rather than conscripted military force, the Government currently defines a veteran as anyone who has drawn a day’s pay from the MoD (Dandeker et al. 2006). This is in contrast with other Western countries (e.g. US, Australia) where the title veteran can only be used after completing basic training, deployment to a theatre of conflict and not having been dishonourably discharged (Fossey 2010).

Within the UK there has traditionally been no special provision made for the estimated 10 million plus veterans and their dependents. UK Veterans’ health and social needs are officially catered for by statutory services such as the NHS and local authorities. Various charities and other organisations, some with central funding, also play a major role in supporting veterans and their dependents, supplementing the input provided by statutory services (The Royal British Legion 2006). Concerns about the current provision for veterans have been widely reported (Haley et al. 2002 ), (The Royal British Legion 2006).

The MoD and the Devolved Governments are currently committed to improving support and treatment within the NHS for veterans living in the UK. The UK system is in contrast with other Western countries that have well developed and established separate health care systems for veterans, including their own hospitals, clinics and out-patient programs,
including Australia (Department of Veterans Affairs 2002), Canada (Veterans Affairs Canada 2008) and the United States of America (United States Department of Veterans Affairs 2010).

Priority Treatment

When the NHS was formed in 1948 the MoD and NHS agreed that any servicemen and women that leave the AF their healthcare automatically reverted back to the responsibility of the NHS. All veterans since 1953, following the establishment of the NHS Ministry of Pensions Hospitals, were absorbed into the NHS and the system of Priority Treatment (PT) for War Pensioners began. Under this provision, war pensioners are entitled to PT for their accepted disablement, dependent on clinical needs as determined by the clinician in charge.

In 2007 the criteria were changed to include all veterans with service-related health problems regardless of whether they had a war pension and came into force on the 1st January 2008. Priority Treatment applies to both in and out-patient treatment for physical and mental health issues, as long as the condition developed as a result of military service (Royal British Legion 2010). As serving personnel leave the AF they are encouraged to tell their GP about their past occupational role and their new one as a veteran in order that they may benefit from PT within the NHS (Lawler 2008).

How Priority Treatment works

General Practitioners (GP) are specifically encouraged to mention in any referral information to secondary (more specialist) care that the patient is now a veteran with a Service related injury or illness. If the GP decides that a condition is related to ‘Service’ then any referral for specialist assessment and treatment should make this clear, provided that the patient has given the GP permission to do so. It is for the hospital clinician in charge to determine whether a condition is related to Service and to allocate the case as a priority. Where a hospital Consultant agrees that a veteran’s condition is likely to be Service related, they have been asked to prioritise veterans over other patients with the same level of clinical need. However, veterans will not be given priority over patients with more urgent clinical needs (Serving Personnel and Veterans Agency 2010).

Despite the UK Governmental support for the policy of PT, a recent online survey, funded by the Royal British Legion, reported that: “the delivery of PT remains inadequate, as awareness of the scheme among healthcare professionals and veterans is low”. Evidence was collected by an on-line questionnaire completed by 500 GPs across England and Wales, between 13 and 23 March 2009. The results were that:

- 33% of GPs questioned knew nothing at all about PT for War Pensioners;
- of those GPs who have heard of PT, most (58%) heard about it from the media, 7% from the Service Personnel and Veterans Agency or elsewhere in MoD, and 16% via the NHS; and
- 10% of GPs who have heard of PT had informed secondary care providers of a veteran’s entitlement to priority treatment in the previous 12 months.

The authors concluded that more needs to be done to improve levels of awareness, particularly among GPs, if the policy on PT is to deliver the benefits it should (Priest 2009). Recent efforts to address this poor level of awareness amongst GPs has resulted in a publicity campaign and a specially designed booklet sent to all GPs in England and Wales
developed by the Royal College of General Practitioners, with the assistance of the RBL and Combat Stress (Royal College of General Practitioners 2010). As many more AF personnel deploy to Afghanistan and are exposed to its unique stressors, those who require support or treatment is currently increasing and expected to continue to do so.

Commonly used interventions to treat mental health problems in veterans

Veterans with service related mental health problems should be assessed by their GP and treated accordingly or referred onto mental health services under the PT guidelines, where they will be offered evidenced based treatments as a civilian determined by clinical need (Lawler 2008). All treatments within the NHS should follow evidenced based interventions or best practice guidelines where they exist, as determined by the National Institute for Health and Clinical Excellence (NICE).

These interventions may include treatment for common mental health problems (anxiety and depressive disorders) (ScHARR 2004, National Collaborating Centre for Mental Health 2004), alcohol dependency (National Clinical Guidelines Centre 2010), schizophrenia (National Collaborating Centre for Mental Health 2009), and post-traumatic stress disorder (National Collaborating Centre for Mental Health 2005), amongst others.

In reality, access to evidence-based treatments, particularly out-patient psychological therapy, can depend on where the veteran lives. For instance, the NHS (in England only) is attempting to increase access to psychological therapies (IAPT), by training 3,600 new psychological wellbeing practitioners (PWP) in common mental health disorders treatment. The PWP will be able to implement NICE recommended therapies in a stepped-care model via access to low and high intensity workers, with access to an employment advisor.

Psychological treatments provided by these new PWP include: pure self-help; guided self-help; psycho educational groups; behavioural activation; computerised cognitive-behavioural therapy; and structured exercise; cognitive behavioural therapy; counselling; interpersonal therapy and couple counselling (Glover et al. 2010). Due to the perceived difficulties that veterans have about engaging with the NHS mental health services and misconceptions from staff who work in the NHS, IAPT has also produced 'Positive Practice Guidelines' which try and dispel certain myths that may hinder veterans engagement with NHS services (IAPT 2009). It is unclear at present if IAPT has been successful in treating veterans as the first year data, unfortunately, does not include information about different occupational groups (Glover et al. 2010).

Over the past 30 years, the development of evidence-based treatment approaches for mental health problems has greatly increased the range of options available to mental health clinicians. However, engaging veterans into mental health treatment programmes remains particularly challenging due to a variety of factors including stigma, perceived weakness at acknowledging emotional difficulties and military 'macho' culture (IAPT 2009, King’s Centre for Military Health Research 2010). In a recent study more than 60% of US Iraq veterans screened positive for a mental health problem did not seek treatment (Hoge et al. 2004). Similar findings were reported in a UK study, in which only 23% of serving personnel with common mental health problems were receiving any form of medical professional help. Chaplains were much more likely to be supporting these individuals. Those who were receiving medical help were mainly in primary care (79%) and being treated with medication, counselling or psychotherapy (Iversen et al. 2010). Trials are ongoing in the US and UK with group programmes such as Battlemind (Adler et al. 2009) and Trauma Risk Management (TRiM) (Greenberg et al. 2010) respectively, with some evidence that they may improve attitudes to mental health-seeking behaviours.
There are a range of evidence-based treatments for mental health problems that have been shown to be effective in civilian populations but it is unclear whether or not they have similar efficacy in military and veteran populations or how well these populations engage with them. A systematic review and meta-analysis of psychosocial interventions used to treat veterans with chronic PTSD identified seven randomised controlled trials which used a combination of trauma focused psychological interventions.

Psychosocial interventions aimed at reducing PTSD symptoms

Self report data was derived from four modestly powered studies; (Carlson et al. 1998) (EMDR); (Devilly et al. 1998) (EMDR); (Keane et al. 1989) (Flooding group techniques) and (Monson et al. 2006) (Cognitive processing therapy) with a combined total of 128 participants (see figure 1). These trauma-focused psychological therapies were significantly more effective than waiting list/usual care at reducing traumatic stress symptoms at initial outcome (random effects) (k=4, n=128; SMD -0.59, 95% CI -1.09, -0.10).

Figure 1. Self-reported PTSD symptom severity

<table>
<thead>
<tr>
<th>Study or Subgroup</th>
<th>Experimental Mean</th>
<th>SD</th>
<th>Total</th>
<th>Control Mean</th>
<th>SD</th>
<th>Total</th>
<th>Weight</th>
<th>Std. Mean Difference IV, Random, 95% CI</th>
<th>Std. Mean Difference IV, Random, 95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carlson 1998</td>
<td>92.8</td>
<td>20.8</td>
<td>10</td>
<td>112.9</td>
<td>21.7</td>
<td>12</td>
<td>20.3%</td>
<td>-0.91 [-1.80, -0.02]</td>
<td></td>
</tr>
<tr>
<td>Devilly 1998</td>
<td>110.42</td>
<td>27.72</td>
<td>12</td>
<td>111.2</td>
<td>24.77</td>
<td>10</td>
<td>21.9%</td>
<td>-0.03 [-0.87, 0.81]</td>
<td></td>
</tr>
<tr>
<td>Keane 1989</td>
<td>28.8</td>
<td>15</td>
<td>11</td>
<td>31.9</td>
<td>12</td>
<td>13</td>
<td>23.1%</td>
<td>-0.22 [-1.03, 0.58]</td>
<td></td>
</tr>
<tr>
<td>Monson 2006</td>
<td>44.62</td>
<td>12</td>
<td>30</td>
<td>56.38</td>
<td>10.9</td>
<td>30</td>
<td>34.7%</td>
<td>-1.01 [-1.55, -0.47]</td>
<td></td>
</tr>
<tr>
<td>Total (95% CI)</td>
<td></td>
<td></td>
<td>63</td>
<td>65</td>
<td></td>
<td>100.0%</td>
<td></td>
<td>-0.59 [-1.09, -0.10]</td>
<td></td>
</tr>
</tbody>
</table>

Heterogeneity: Tau² = 0.11; Chi² = 5.24, df = 3 (P = 0.15); I² = 43%
Test for overall effect: Z = 2.34 (P = 0.02)

Trauma focused psychological therapies/group psycho-educational vs. active control intervention

Three studies compared a psychological intervention Dunn et al (2007) self-management group vs. active control (psycho-educational group only), Schnurr et al (2003) trauma focused-group therapy vs. present-centred therapy (with no trauma content) and Schnurr et al (2007) prolonged exposure vs. present centred therapy. All of these studies used a clinician administered measure, the CAPS (Blake et al. 1995), as their primary outcome measure and this data was combined in a meta-analysis (Dunn et al. 2007, Schnurr et al. 2003, Schnurr et al. 2007) with a total of 686 participants. At initial outcome, a significant difference was observed between the treatment and the control condition, in favour of the treatment condition (k=3, n=686; WMD -3.16, 95% CI -6.08, -0.23) (see figure 2).

Figure 2. Clinician administered-CAPS to rate PTSD symptoms

<table>
<thead>
<tr>
<th>Study or Subgroup</th>
<th>Experimental Mean</th>
<th>SD</th>
<th>Total</th>
<th>Control Mean</th>
<th>SD</th>
<th>Total</th>
<th>Weight</th>
<th>Mean Difference IV, Fixed, 95% CI</th>
<th>Mean Difference IV, Fixed, 95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dunn 2007</td>
<td>73.93</td>
<td>15.22</td>
<td>33</td>
<td>77.1</td>
<td>15.22</td>
<td>44</td>
<td>18.2%</td>
<td>-3.17 [-10.04, 3.70]</td>
<td>-3.17 [-10.04, 3.70]</td>
</tr>
<tr>
<td>Schnurr 2003</td>
<td>74</td>
<td>16.8</td>
<td>162</td>
<td>76.03</td>
<td>16.85</td>
<td>163</td>
<td>64.1%</td>
<td>-2.03 [-5.69, 1.63]</td>
<td>-2.03 [-5.69, 1.63]</td>
</tr>
<tr>
<td>Schnurr 2007</td>
<td>52.9</td>
<td>30.9</td>
<td>141</td>
<td>60.1</td>
<td>28.79</td>
<td>143</td>
<td>17.8%</td>
<td>-7.20 [-14.15, -0.25]</td>
<td>-7.20 [-14.15, -0.25]</td>
</tr>
<tr>
<td>Total (95% CI)</td>
<td>336</td>
<td></td>
<td>350</td>
<td>100.0%</td>
<td></td>
<td>-3.16 [-6.08, -0.23]</td>
<td>-3.16 [-6.08, -0.23]</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Heterogeneity: Chi² = 1.67, df = 2 (P = 0.43); F = 0%
Test for overall effect: Z = 2.11 (P = 0.03)
Tele-psychiatry vs. same room treatment for PTSD

Severity of PTSD symptoms initial self-report-Posttraumatic Stress Disorder Checklist (PCL-M)

Two studies reported data on the merits of tele-psychiatry as a means of reaching remote groups of veterans (Frueh et al. 2007, Morland et al. 2004). Frueh et al (2007) used TF-group cognitive-behavioural therapy via video-conferencing and (Morland et al. 2004) a video-conferencing PTSD coping skills group. There were a combined total of 33 participants. There was a trend effect in favour of the same room intervention (control group) at initial follow-up (fixed effects) \( (k=2, n=33; \text{WMD} 7.49, 95\% \text{CI} -0.34, 15.33) \) see figure 3.

This meta-analysis demonstrates there was some evidence for the efficacy of interventions to treat chronic post traumatic stress disorder in veterans. Several studies primarily used a behavioural exposure paradigm (e.g. flooding or prolonged exposure (Keane et al. 1989, Schnurr et al. 2007), whereas others evaluated group psycho-education (Dunn et al. 2007), trauma-focused group therapy (Schnurr et al. 2003), or cognitive therapy techniques with limited amounts of imaginal exposure (Monson et al. 2006). In addition, the total number of hours of the interventions provided across studies varied making results from the analyses less meaningful and difficult to generalise from. The results should therefore be interpreted cautiously although it is noteworthy that an analysis limited to the clinically more homogeneous trauma focused interventions was positive.

There were differences in the clinical populations, a variety of clinical presentations were included and there were also differences with regards to service history, combat exposure and time of service. These differences may have resulted in variations in the way veterans presented, for example through the duration of their symptoms which may have influenced the likelihood of a positive response to treatment. For example, Korean/Vietnam veterans may be more likely to present with complex, multi-factorial problems and be more difficult to treat than veterans of more recent conflicts (Glynn et al. 1999).

Clinical implications

The results of this review suggest that veterans are likely to respond to trauma-focused psychosocial interventions for chronic PTSD on a one to one basis with the therapist within the same room. However, the limited number of studies and their small sample sizes should be considered. This is consistent with the evidence from meta-analyses of civilian studies (Bisson et al. 2007) and supports a recommendation that trauma focused interventions should be offered to all veterans with chronic post traumatic stress disorder.
Social interventions

Many veterans leave the AF having joined when they were young adults and can have become institutionalised in the military culture. This can cause problems when they re-enter civilian life, making transition a stressful and difficult process. One of the key findings of research conducted by the RBL in 2005 into veterans’ issues was the high level of financial problems (The Royal British Legion 2006). As a result, in 2007, the RBL and RAF Benevolent Fund funded 33 Citizens Advice Bureaux (CAB) to provide a service offering advice on benefits and money matters to serving personnel, veterans, their partners and dependents. Figures from May 2007 to August 2010 highlight the volume and complexity of the CAB’s work:

- 14,250 veterans advised
- £39.9 million in benefit gain, debt write-off, grants or other funds received
- Average financial gain per client £2,803
- 63% of work is recorded at a specialist level
- compared to 12% across the CAB service as a whole
- Due to complexity 4 times as many contacts are required to resolve veterans’ problems (on average 11 contacts compared to 3 in civilian clients)
- 49% of veterans have a disability or long term health problem compared to 21% of clients across the CAB service as a whole.

The CAB reported that a number of veterans helped were diagnosed with mental health conditions, often connected to their time in Service, or due to a variety of other factors. These mental health conditions were either a root cause behind their difficulties or a complicating factor. Case workers were developing close links with mental health providers and were referring veterans on for specialist assessment and treatment. Over £12 million in unclaimed benefits was identified as many veterans were unaware of what they were entitled to and, as a result, many were living in poverty (Citizens Advice Bureaux 2010).

Summary

The UK first formed a dedicated AF in 1707 which has grown from an assembled King’s militia to a professional tri-service, funded and controlled by an elected Parliament to protect the UK and its citizens overseas. It employs approximately 180,000 personnel, some of whom are reservist who are now deployed with the regular serving personnel on tours of six month duration when required. The AF attracts a wide variety of individuals from predominately working class backgrounds into the junior ranks and officers tend to be from higher socioeconomic classes.

The AF offers these individuals the chance to experience an exciting and varied career often in countries far from the UK where they are exposed to a variety of demanding and in some cases hostile environments. For most the AF experience equips them with skills that they can take into civilian life and are viewed as desirable employees. Those that leave the AF with mental health problems appear to find adjustment more difficult and often do not engage or seek NHS treatments and have a less favourable trajectory, including offending and contact with the CJS. Unhelpful personality factors and early life experiences pre-enlistment may make a sub group more vulnerable to mental health and anti-social problems. The AF have a well developed mental health system which is available to service personnel, but maybe underutilised due to perceived barriers including stigma and concerns about career progression if treated.
Those that do leave with physical and mental health problems revert back to the NHS upon discharge and are eligible for compensation or war pension entitlement. Veterans are also able to access Priority Treatment within the NHS, although this is again perhaps underused due to lack of knowledge amongst clinicians and relies heavily on a veteran friendly clinician implementing the guidance. There has historically been a lack of mental health provision and understanding of veterans’ issues within the NHS. This is now being addressed through funding from the devolved Governments via community mental health pilot sites, substantive investment in new veterans services and attempts to increase access to psychological therapies within England. The needs of veterans with mental health problems are often complex and require statutory and non-statutory agencies working together to ameliorate often severe social, psychological and physical health problems.
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