Psychological Health of Military Personnel

The House of Commons Defence Select Committee\(^1\) has stated that more resources are needed to support military personnel, particularly in mental health services. This note examines the impact of military service on the psychological health of serving personnel, reservists, veterans and their families. It outlines the effectiveness of interventions, and highlights areas for further research.

Researching Armed Forces Mental Health

Society has a moral obligation and duty of care to service personnel and their families, as enshrined in the Armed Forces Covenant.\(^2\) Monitoring the mental health of the military (Box 1) is therefore the focus of much research and health surveillance undertaken by the Ministry of Defence (MOD), academic sources (Box 2) and charities. The MOD collects statistics on mental health across the forces, using data from in- and out-patient care. Academic researchers follow large cohorts of UK personnel who served in operations in Iraq, Afghanistan and other locations and compare their health outcomes with those of the general population (Box 2). Research also examines if specific roles or experiences are more likely to be associated with poor mental health, and whether there are predisposing factors that may be related to individuals’ experiences and vulnerabilities before enlistment. This identifies areas of concern to inform policy.

Serving in the Armed Forces is a positive experience for many. It may improve a person’s social and psychological trajectory,\(^3\) bring structure to daily life, develop resilience, and provide training and education that may not otherwise have been accessible in civilian life. Mental ill health is common in the general population, affecting one in four people in any given year.\(^4\) It is difficult to establish with certainty if a mental health condition is caused by military service, if it would have occurred anyway and whether service mitigated, aggravated or made no difference to it. It is difficult to track people after integration into civilian life and to verify service records. Information on veterans’ mental health comes from NHS health care data, academia and from charities.

Overview

- The prevalence of common mental health problems in the military is higher than in the general population, but remains stable.
- While PTSD accounts for only a small number of cases, combat troops and reservists are at higher risk of developing it.
- Regulars who leave service early, and reservists, have a higher risk of developing mental health problems than their peers. Outcomes for early service leavers are likely to relate to pre-enlistment risk factors.
- Drinking at harmful levels is widespread in the Forces.
- The MOD has several strategies to protect the mental health of the Armed Forces.
- However, stigma associated with mental ill health is a major barrier to accessing help.
- A lack of research means that the impact of service on families is poorly understood.

Box 1. The Armed Forces

The Armed Forces comprises the Royal Navy, British Army, Royal Marines and Royal Air Force, with 141,160 trained UK regular personnel (‘regulars’), and 24,630 trained reservists.\(^5\) Reservists train for 19-27 days per year and may be called up to serve in operations in the UK and abroad. In 2014/15, 18,910 UK regulars left service (a typical annual figure). A Royal British Legion survey estimated the veteran population in 2014 at 2.8m in 2014. This is expected to decline to ~1.8m by 2027.\(^6\) Roles within the Armed Forces vary, with most roles involving deployment away from home. Deployments range from serving in conflicts in active combat or combat support, to peacekeeping activities or work in humanitarian operations. An individual’s experience of service can vary according to the unit they serve in, the type of deployment and their individual role. For example they may experience directly firing at the enemy, coming under attack, civilian hostility, sustain injuries or handle human remains.\(^7\)
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What the Research Shows
The most prevalent conditions are common mental health disorders: anxiety, stress, panic and adjustment disorder (an exaggerated emotional and behavioural response to significant life events), mood disorders such as depression and alcohol misuse. Post-traumatic stress disorder (PTSD) is rare. Academic research shows that the prevalence of mental health conditions varies between groups, discussed later. There is research showing that traumatic physical injuries, particularly those sustained in combat, can be a risk factor for poor mental health (Box 3).

Box 2. Academic Study of Military Mental Health in the UK
The main academic hub for military research in the UK is King’s College London’s Centre for Military Research and the Academic Department for Military Mental Health, which have followed military population health since 1996. They have established a cohort of ~10,000 regular and reservist personnel (11% females) deployed to Iraq and Afghanistan (some of whom also had previous deployments), and followed them over time (a longitudinal study). This has allowed researchers to compare their mental health outcomes with those who were not deployed, and can include data on those who leave service.

Box 3. Psychological Impact of Physical Injuries
Physical injuries can adversely affect mental health. Improved medical practice means that more people survive injuries. Research shows that individuals evacuated because of injury have an increased risk of developing PTSD. There is limited research on the long term effects of life-changing physical injuries on mental health. Experts agree that longitudinal studies are essential to examine long-term psychological outcomes. The MOD-funded ADVANCE study is a collaboration between King’s College London, Imperial College London, the Royal British Legion and Headley Court (Defence Medical Rehabilitation Centre) will analyse outcomes for a cohort of battle-injured personnel.

Limitations of Research
Statistics reporting the prevalence of mental health conditions in personnel come from two sources. Academic studies determine prevalence across the whole population by studying a representative sample. However in many such studies, conditions are assessed through self-reporting questionnaires, leading to a ‘probable’ diagnosis (rather than a clinical one made by a specialist). It is therefore possible that prevalence may be under or over-estimated. The MOD and charities collect data about those who seek treatment, which is not representative of overall prevalence.

Regulars
The MOD publishes clinical data annually on the mental health of serving personnel who seek treatment. In 2014/15, of the 6,059 personnel referred to MOD specialist mental health services, 4,858 were assessed to have a mental health condition. This equates to 2.9% of regulars (compared with 2.4% in the general population), the figure was 1.8% in 2007/08. It is unclear whether this increase reflects a real rise in incidence, or is due to new methods of reporting and MOD campaigns to reduce stigma (which may mean that personnel are more likely to seek help). The difference in the rate compared with the general population could be accounted for by the lower threshold for referral to specialist care in the Armed Forces.

Analysis of the longitudinal study cohort described in Box 2 of personnel who served in Iraq and/or Afghanistan, showed that 19.7% reported common mental health conditions. Another study found that prevalence of common mental health conditions in men aged 18-44 years in this cohort was twice as high as for working men of the same age in the general population (18.2 vs 9.2%). Prevalence of PTSD was 4.0% across the cohort, but increased to 6.9% for personnel with combat roles. However, some combat units were not found to be at increased risk of PTSD, notably specialist forces such as the Royal Marines. The reasons for this resilience are not well researched but could reflect selection processes, fewer pre-enlistment risk factors (such as childhood adversity) and higher unit cohesion (based on comradeship, strength of leadership and how well-informed personnel feel). Although pre-deployment screening to identify vulnerable individuals has been suggested, there is no evidence that this would be effective. Bullying, Self-Harm and Suicide
The association between bullying and psychological distress is well recognised. When surveyed, 10% of regulars reported experiencing discrimination, harassment or bullying in a service environment in the last year, a level not significantly different to other workplaces. Rates of self-harming behaviour ranged from 1% to 5.6% in serving personnel. This compares to the estimated 4.9% rate in the general population and 10.5% for veterans. Self-harming is thought to be associated with experiences during childhood and adulthood, suggesting pre-enlistment risk factors may account for this behaviour. MOD statistics show a declining trend in suicide rates since the 1990s, with rates lower than the general population. Between 1994-2014 there was an increased risk (65%) of suicide among young men up to 20, although there have been none in the latest five year period. It is considered that these deaths are likely to be related to pre-service vulnerabilities.

Early Service Leavers
A higher prevalence of mental health problems is seen in Early Service Leavers (ESLs). These are personnel who leave voluntarily before completing their minimum term, have been compulsorily discharged or who have not completed basic training. They are at an increased risk of common mental health problems (45.6% in this group compared to 26.5% in other military service leavers). ESL often leave at short notice (less than two weeks) with little time to plan the transition to civilian life. Groups who are more likely to leave service early are young single men (average age of 20), those in service in a lower rank in the Army, those with low educational attainment, and those with higher levels of childhood adversity. Historically, ESLs have not been entitled to the same level of transitional support as those who have served over four years. The MOD’s recently launched ‘Future Horizons Programme’ focuses on helping ESLs and others who have been discharged for any reason to find and remain in employment.
Reservists
Since 2010, the number of trained and untrained regulars has been cut from 191,710 to 153,720. Overall strength will be maintained by increasing the number of reservists.

Studies have been carried out with reservists who served in Iraq and/or Afghanistan, which showed that:
- deployed reservists were more likely to report probable PTSD than non-deployed reservists; and
- reservists deployed to Iraq remained at increased risk of PTSD and relationship problems five years after their deployment. They also felt less supported by the Armed Forces after coming home and reported significantly poorer relationships.

The reasons for these differences are not well understood, but could relate to differences in training. The difficulties of re-integrating into civilian life post-deployment are also relevant. The main factors proposed are a perceived lack of social support, and from family and peers who have a limited understanding of military culture.

Outcomes for Veterans
It is a commonly held view that most service leavers do well, and service has a positive impact on their lives. Statistics are limited but 84% of those using the Career Transition Partnership find civilian employment within six months of leaving service. However, a minority leave service with a mental health problem or develop problems later, and are thought to be at greater risk of ongoing ill health and social exclusion. Research on the UK cohort that served in Iraq, showed that veterans’ mental health overall was similar to those still serving. The exception was the higher prevalence of mental health disorders in ex-serving personnel compared to those still serving (19% versus 12%). Data that might be frequently cited in debate is the extent to which veterans access health services, whether provided by the NHS or charities. This data is a poor proxy as it is not representative of the overall veteran population since only a subset use such services.

Wider Psychological and Other Issues
Other outcomes which are active areas of research include: alcohol consumption and the prevalence of violent offending; its links to alcohol and the possible relationship with deployment or other factors; and the consequences of service for families.

Alcohol
Alcohol consumption is an established part of UK military culture with some research indicating a role for moderate, responsible drinking in promoting group cohesion, social bonding and comradeship. However, data shows that drinking at levels that is harmful to health is common (Box 4). In recognition of the operational, reputational and health risks associated with drinking by servicemen and women, and the role of alcohol in violent behaviour, all forces have alcohol policies. Senior officers are responsible for monitoring troop drinking and are trained to recognise misuse and refer staff to medical services. Alcohol misuse is a disciplinary offence under certain circumstances, such as if it affects safety-critical duties. Interventions aimed at reducing drinking have included education programmes but there is little evidence that they work. Post-deployment briefings now include aspects of the programme BATTLEMIND (which covers how to adapt skills used on deployment for the civilian environment). One study showed that it has modest effects in reducing binge drinking. Reducing availability on bases, raising prices, banning lunch-time drinking and enforcing disciplinary action are more effective interventions.

Box 4. Patterns of Drinking in the Armed Forces
Research using self-reported data showed that across all forces:
- 67% of men and 49% of women report hazardous drinking, compared with 33% of men and 16% of women in the general population.
- 48% of men and 31% of women reported binge drinking (consuming at least 6-8 units in one day). Binge drinking is associated with being young, a regular, in the Army, single, white and a smoker. Officer status is associated with less binge drinking.
- PTSD is associated with co-morbid disorders including alcohol misuse; a causal relationship has not been established.

Treatment for Alcohol Problems
The MOD uses a NICE-approved alcohol misuse treatment programme, with inpatient detoxification for severe cases. Veterans can seek treatment on the NHS or from charities such as Addaction, Change Step and Alcoholics Anonymous. The civilian ‘Right Turn’ alcohol programme has been funded and adapted for veterans by Addaction, the Forces in Mind Trust and the Royal British Legion. The programme uses veteran role models to offer substance abuse support. More details about the MOD’s strategy to reduce alcohol misuse are expected in the forthcoming Defence People Health Strategy.

Violence, Offending and Imprisonment
A recent Ministry of Justice analysis reported that ex-service personnel made up 5% of the custodial population. Of these, two-thirds were aged under 40 and 80% were ex-Army. MOD figures suggest that veterans are 14% less likely to be serving a sentence for violence against people and non-violent offending than the general population. However they are 15% more likely to be in prison for sexual offences than the general population. The main factors associated with offending are lower rank, younger age, a history of violence or antisocial behaviour prior to enlistment, alcohol misuse, and having a mental health problem, particularly PTSD. Research that linked data on veterans with national offending records found that while deployment itself is not a risk factor for violence, but combat roles and experiencing traumatic events are risk factors. There is little research about the victims of violence, but US data shows that physical aggression is more likely to be directed at a partner or family member than a stranger.

Consequences of Service for Families
Having a loved one in the Armed Forces can place a strain on family members, particularly through cycles of separation due to deployment, and challenges in adjusting to family
life.46 The impact of service life on family is the main reason cited by service personnel for leaving the Armed Forces.49 There has been little research on mental health impacts of service on families, although some studies are underway:
- surveying children’s attitudes to having a parent in service
- effects on children’s education45 and behaviour
- the impact of service on spousal relationships.

Prevention and Treatment
The MOD’s policies to promote and maintain the mental health of its staff apply at both organisational (such as policies on optimum length of deployments and gaps between them) and individual level (training and educational policies). Personnel who have a suspected mental health problem and seek help are assessed and diagnosed by clinical staff within their unit, at a Department of Community Mental Health centre or hospital. Informal support is also available from welfare officers or padres. Evidence-based treatments include drugs, talking therapies and psychotherapies. There is special provision for veterans and reservists (Box 5).

Deployment Cycle: Prevention and Intervention During deployment
The Harmony guidelines61 outline optimum tour length and interval, and evidence shows that following them is protective for mental health. For example, the risk of developing PTSD increases if personnel are deployed for more than 13 months in a three year period.52,53 Senior officers are responsible for monitoring the health of personnel during tours. Lower levels of common mental health conditions and PTSD are associated with higher levels of unit cohesion, morale, and perceived good leadership.54 Research has shown that dealing with a mental health issue on deployment rather than being evacuated can have beneficial outcomes.55

Post-deployment
After deployment, personnel are relocated for a 24-36 hour period of ‘decompression’, to unwind and help them adjust to home life. A survey found that 91% of respondents said they found this useful66 but there is little high quality evidence on its effectiveness. For example it is not clear whether this prevents mental health problems; which groups benefit; or what the optimal length of decompression should be. Educational briefings are given on topics such as normal deployment stress, mental health and alcohol. Trauma Risk Management (TRiM) is a peer-led program to gauge how an individual is coping after a traumatic event. A randomised control trial showed that while TRiM had no overall effect on mental health or stigma, it helps pick up mental health problems, to mobilise social support and feedback from participants is feedback.57 A post-operational stress management brief is conducted by a mental health nurse 12 weeks after operations to share information about what individuals can do if they think they have a problem. The UK does not use post-deployment mental health screening; preliminary evidence suggests that it would be unlikely to improve whole-force mental health or improve help-seeking.

Improving Access to Care and Support
In spite of efforts to encourage people to seek help, a substantial group of serving and ex-serving personnel have mental health problems but do not seek treatment.58 This can be because they fail to recognise that they have a health problem or need treatment69 or because of barriers including stigma, lack of awareness or access to care, or because they have negative attitudes about treatment. This is also true of the general population as a whole. A review of transition services for those leaving the forces highlights the importance of a single contact centre, to replace “the confusing array of information that currently exists” and suggests that there is an opportunity for a more coherent approach from the NHS, charities and private providers.60 A recent report estimated that of the 757,805 regulars that served 1991-2014, 66,090 will need support for service-related health problems (both physical and mental).61

Research suggests that stigma is a barrier to seeking help. This could be because of concerns about being perceived as weak and the possible impacts on career progression can discourage serving personnel seeking help.62 Several programmes aim to de-stigmatisate mental health and promote support including the ‘Don’t Bottle it Up’ campaign, TRiM and through educating personnel at all levels, individuals and their families, including briefings about mental health and stress management prior to and after deployment. As it is more difficult to reach the dispersed veteran community; the new Mental Health First Aid scheme aims to increase mental health resilience amongst veterans and the families of both serving and ex-serving personnel.

The Role of Charities
Numerous charities are active in this area (for example the Royal British Legion, Veterans Aid, Walking with the Wounded, Combat Stress and Help for Heroes). They each have different priorities and activities, such as contributing to policy debates, campaigning, fundraising and offering practical support and treatment. Some focus on facilitating access to appropriate services or provide practical support directly. They can also provide a degree of anonymity in accessing help, such as anonymous online communities for discussion. Charities’ status and visibility can increase veteran engagement and decrease stigma.

Box 5. Treatment for Veterans and Reservists
Specialist NHS services offer support and treatment for veterans. Specific environments with knowledge of veteran experiences is thought to benefit some patients. Many charities offer support but there are differences in the care offered, governance levels vary and some treatments may not be evidence-based. A study identified that the effectiveness of treatments for veterans can depend on their experiences. For example, therapy was found to be more effective for Early Service Leavers, suggesting that targeting psychological therapies according to veteran subgroups may be beneficial.63 The Reserves mental health programme was launched in 2006 and can be used if the individual can show that service has negatively affected their mental health. A study found that PTSD symptoms of those referred to the programme improved.64
Endnotes

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