



The mental health of the UK Armed Forces

This briefing provides an outline of the current evidence on UK military mental health, including prevalence rates of mental health problems in serving personnel (regulars and reserves) and data on suicide, help-seeking, violence and offending.¹

1. Impact of the operations in Iraq and Afghanistan

As yet, there is **no evidence of a 'bow wave'**, 'tidal wave' or 'tsunami' of mental health problems in UK Regulars or Reservists. In 2004-6, there was no overall increase in mental health problems in Regular personnel who had served in Iraq compared to rest of the Armed Forces. Across the whole of the UK Armed Forces, the prevalence of probable post traumatic stress disorder (PTSD) was around 4%. Despite increased deployments, prolonged operations in Iraq and increased commitment in Afghanistan, PTSD rates remained stable when assessed in 2007-9. Similar rates of probable PTSD were reported before, during and after deployment.

However, **Regulars deployed in combat roles** (in both 2004-6 and 2007-9) reported a higher prevalence of probable PTSD than those deployed in other roles (6.9% compared to 3.6%, in 2007-9).

In addition, **Reservists reported higher rates of probable PTSD** after deployment to Iraq compared to those not deployed (6% vs. 3%, in 2004-6). The association with deployment remained in 2007-9 (5% in deployed vs. 2% in non-deployed). This is probably a result of different pre-deployment and homecoming experiences, rather than experiences in theatre. Reservists report feeling alienated from the military once they have been demobilised, which may be linked to continuing poor mental health. Recent evidence has shown that the increase in both probable PTSD and marital problems persists five years after deployment, which is cause for concern.

There is evidence of increased levels of **alcohol misuse** in Regulars post deployment both at phase 1 and phase 2 (16%) compared to the non-deployed (11%); especially those in combat roles (22%).

There has been an observed increase in absolute numbers of Service personnel and veterans visiting Defence Medical Services (DMS), Service charities and the NHS for help with mental health problems. There may be several reasons for this. First, it might simply be due to a true increase in rates of mental health problems. Second, it might reflect a modest success in **reducing stigma** associated with mental illness (as published data suggests this has reduced by about 5% since 2008). Third, it might be due to a **decrease in time taken to seek help** (as reported by charities). In addition, in-Service process changes have facilitated the referral process to DMS of patients with mental ill health.

¹ The main data source for this briefing is the KCMHR cohort study. KCMHR completed two waves of questionnaire-based data collection from UK Service personnel in 2004-6 (phase 1) and 2007-9 (phase 2), with the second phase also picking up recent Service leavers. These findings are supplemented with data from a range of other KCMHR research projects, research from Defence Statistics (Health) and US military health researchers, as well as open sources. The 300+ publications produced by KCMHR and ADMMH can be found at www.kcl.ac.uk/kcmhr/publications.

US rates of PTSD and mild traumatic brain injury (mTBI) in Service personnel are higher than in the UK and are substantially increased after deployment. This difference was probably due to higher combat exposure among US forces in earlier studies (a difference which disappeared as UK forces saw substantially more combat in Afghanistan), longer tour lengths, greater number of Reservists and age differences. Entitlement to post-Service healthcare provision may also play a role; with some exceptions, veterans require a Service-related diagnosis (and accompanying compensation) to access enhanced healthcare through the VA, which may encourage more to report ill-health.

In summary, there is no evidence of a tidal wave of deployment related mental health problems.

2. Mental health overall

In general, **there is no clear evidence that mental health in the Armed Forces is substantially worse** than other occupational groups. However, whilst earlier research had suggested that there did not appear to be a difference in the rates of common mental health disorders between military personnel and civilians; more recent analysis has questioned that view. PTSD continues to be less common than either depression or anxiety (common mental health problems) or alcohol misuse; the latter continues to be the main problem for Armed Forces personnel.

Groups at increased risk of any mental health problem include Reservists, combat troops, those with pre-existing social or childhood adversities and early Service leavers (leaving before completing four years of service).

Members of the UK Armed Forces report considerably **higher rates of alcohol misuse** than the general population, especially within the Royal Navy and Army. The rates are also higher than those reported in the US or Australian militaries, which may be partly accounted for by demographics/selection (e.g. differing recruitment patterns, and self-selection, whereby certain demographic groups may be more likely to sign-up). Across all age groups, the relative frequency of hazardous drinking among military men is nearly twice that in the male general population and for women three times. These differences reduce with age. The pattern is of binge drinking and harmful use of alcohol (causing health, social and psychological harm). True alcohol dependence is unusual, perhaps because deployments are dry. Nevertheless, rates of dependence remain higher than the general population.

There is no evidence that the length of a single tour, or number of tours, has had an adverse effect on Service personnel's mental health, provided that Harmony Guidelines are followed. When the actual tour length exceeds the expected length, it has a substantial adverse impact on mental health and also alcohol misuse.

Whilst there is some evidence that severely physically injured service personnel are at increased risk of mental health problems; the increased risk of these conditions is even more prominent in personnel who suffer from severe general medical conditions whilst deployed.

3. Suicide

Overall, **rates of suicide are lower in the Armed Forces than they are in the general population**. The only exception is an increased suicide rate in young men (under the age of 20) in the Army. Young veterans (aged 16-24) or those classified as early service leavers are also at an increased risk of suicide. Evidence from several sources suggests that the increase in suicide risk in these two groups is mainly a result of pre-Service vulnerabilities, such as childhood adversity. The longer an individual stays in the military, the lower the suicide risk: long-serving personnel are an increasingly selected and resilient group.

Self-harm in Service personnel is mainly impulsive, is not associated with deployment and is a poor predictor of subsequent suicide risk.

It is not true that "more Falklands Veterans died of suicide than in conflict". Regardless of absolute numbers, what matters most is whether the suicide rate is higher among Falkland veterans

compared to members of the Armed Forces who did not deploy to the Falklands, and higher than the general population. Defence Statistics (Health) has shown that this is not the case.

4. Screening

Pre-deployment mental health screening does not reduce the rate of post deployment mental health problems.

A large, US-funded, randomised controlled trial of post-deployment mental health screening in Regular Service personnel is now in progress, and is being undertaken by KCMHR and ADMMH. Any decision about standardised post-deployment mental health screening should await the results of this trial.

5. Help seeking

There are several definite barriers to help seeking for mental health problems among Service personnel, but **stigma** is particularly important; especially perceptions of how leaders and colleagues would view their seeking of help. Whilst education may help reduce public-stigma, reduction of self-stigma (the belief an individual holds about their own mental health) is more difficult and requires other approaches.

Officers report lower rates of help seeking than other ranks when they acknowledge a stress or emotional problem.

Barriers to care do not go away when Service personnel leave the Armed Forces. In fact, some get worse (e.g. seeking help for alcohol misuse).

Mental health stigma is a general problem across society, and is not specific to the UK Armed Forces. The same has been found in the US and Canadian militaries and the Australian Defence Force. There is evidence that whole-force stigma reporting has modestly declined since 2008. Stigmatising beliefs are, however, more commonly reported by personnel during operations than when they are back home.

Only a minority of veterans with mental health problems receive NICE-approved treatments. Recent evidence suggests that many GPs are aware of the Service background of most recent Service leavers, but lack treatment and referral options. The pattern of mental health problems (non-psychosis, comorbid with high rates of substance misuse, crossing the boundaries into problems with employment, debt, housing, offending etc) are areas less well served by either NHS primary care or specialist mental health services.

6. Violence and offending

Defence Statistics (Health) estimates that **3.5 % of the current prison population** have served in the UK military. This is slightly lower than expected. However, ex-Service men still constitute a significant subset of the adult male prison population and are the largest occupational group. They are also more likely to be in prison for a sex offence or violence against the person than the general population. Rates of acquisitive offending are, however, lower than the general population.

Self-reported **violence** is increased in the post-deployment period and is associated with pre-Service adversity, as well as alcohol and PTSD. Those who have served in a combat role are twice as likely to report violence on return from deployment than those who were not exposed to combat. However, higher levels of pre-enlistment adversity and deployment related mental health problems may account for much of this increased risk.

The picture is similar for actual convictions recorded on the Police National Computer. Those who have served have a lower lifetime rate of criminal convictions than those who have not. This is remarkable when one considers the social backgrounds of many who serve. However, this is not true for violent convictions, which are increased. The main associations are predictable – age,

gender, previous convictions etc. Violent offending is not associated with deployment *per se*, but is associated with combat, even taking into account the fact that having a combat role is not random (recruitment for combat roles tends to be clustered around areas with higher levels of social deprivation), and more people with prior problems go into combat arms. This link is mediated by alcohol, traumatic exposures and, to a lesser extent, PTSD.

7. Relevant in-Service policy initiatives

The Veterans and Reservists' Mental Health Programme at Chilwell was set up in response to KCMHR findings on Reservists' mental health. Uptake is low, but the service appears to be clinically and occupationally effective.

Stigma and reluctance to access services is being addressed by peer group support (trauma risk management, or "**TRiM**"). A randomised controlled trial on this programme found that the programme did not cause harm but did not alter reported stigma over an 18 month period. TRiM is, however, a safe and acceptable approach, and is now being used in other organisations. TRiM appears to help people to access social support and in non-military studies its use is associated with a reduction in traumatic-event related sickness absence.

In theatre, good leadership, morale and cohesion are the main determinants of good mental health. Events at home (e.g. relationship issues) are as important as combat exposure. The deployment of mental health professionals is associated with good occupational outcomes. These results have been used by the Permanent Joint Headquarters to support in-theatre mental health provision.

Approaches to improving post-deployment adjustment have included **third location decompression** (a stop-off in Cyprus on the way back to the UK) and "Battlemind" (a post-deployment mental health intervention). Decompression is popular (after the event) and there is some evidence to suggest that it reduces mental health problems. In a trial, Battlemind did not reduce rates of PTSD, but it did have a modest effect on alcohol use.

8. Conclusions

Overall, the mental health of UK Armed Forces personnel remained stable between 2004-6 and 2007-9, despite increases in Operational Tempo and the number of deployments.

But deployed Reservists and deployed Regulars who have seen combat report higher rates of probable PTSD after deployment.

Regulars show an increased risk of alcohol misuse after deployment.

There is no tidal wave/bow wave of mental health problems in the UK military as yet, but the workload of DMS, charities and the NHS will increase.

Stigma remains a barrier to help-seeking for serving and ex-Service personnel. There is no evidence that stigma is worse because of a Service background. Stigma is not a static concept – it changes; for example, before, during and after deployment.

Evidence is emerging that Service personnel and veterans are now seeking help earlier from both DMS and Service charities. This may reflect changes in society and also an impact of anti-stigma campaigns. Increased numbers seeking help against a stable overall level of mental health problems, determined by true population studies, may be a sign of success, not failure, provided that no overall population increases are found in the future.

Most Service leavers do well. Those who do not have multiple overlapping health and social problems (debt, unstable housing, unemployment, violence, substance misuse, deliberate self harm). Most poor outcomes are compressed into the Early Service Leavers (who served for less than 4 years). Present policy gives the most resettlement support to those who have served the longest, rather than those most in need.