THE MENTAL HEALTH OF THE UK ARMED FORCES (March 2022 version)

This briefing note provides an outline of the current evidence on UK military mental health. It aims to provide the reader with useful information taken from the many studies carried out by researchers at King’s College London\(^1\) and other relevant publications.

Main Findings:

1. MENTAL HEALTH (REGULARS)

   a. The rate of PTSD, in a combined sample of veterans and still serving personnel, was 4\% in 2004/6 and 2009/10, and had increased to 6\% in 2014/16\(^2\). This compares to about 4\% in the general population.

   b. Potentially harmful alcohol misuse remains a common problem but has declined steadily from 15\% in 2004/6 to 10\% in 2014/16.

   c. The rate of common mental disorders (CMD) has remained stable at around 20\% from 2004/6 to 2014/16.

   d. The prevalence of PTSD is not uniform across groups. In 2014/16 among serving regular personnel, the overall prevalence is 5\%. Amongst ex-serving regulars the rate is significantly higher at 7\%.

Deployment

   e. In 2014/16, PTSD was lower among serving regulars with a history of deployment to Iraq or Afghanistan but the difference was not statistically significant\(^3\) (6\% non-deployed, 4\% deployed). This is probably because personnel diagnosed with a mental health problem were less likely to deploy [known as the healthy worker or healthy warrior effect]. The rate of PTSD in ex-serving regulars with a history of deployment to Iraq or Afghanistan was 9\%.

Combat Role

   f. We found considerable differences in the rates of PTSD between the roles individuals held during their last deployment to Iraq or Afghanistan. Being in a combat role during one’s last deployment was consistently associated with an increase rate of probable PTSD. In 2014/16, PTSD in serving regular personnel in a combat role was 6\% whereas in combat service support personnel it was 4\%. For those who

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\(^1\) The main data source for this briefing is the KCMHR cohort study. KCMHR completed three waves of questionnaire-based data collection from UK Armed Forces personnel in 2004-6 (phase 1), 2007-9 (phase 2) and 2014-16 (phase 3). The cohort comprises regular and reserve personnel both serving and ex-serving many of whom served in Iraq or Afghanistan. Service leavers constituted approximately 50\% of the cohort in phase 3. These findings are supplemented with data from a range of other KCMHR research projects, research from Defence Statistics (Health) and US military health research, as well as open sources. The publications produced by KCMHR, ADMMH and our associates can be found at https://kcmhr.org/pubdb/.

\(^2\) All reported percentages are reported as whole numbers.

\(^3\) Deployment here refers to a history of any deployment to Iraq or Afghanistan since 2003.
had left service and whose last deployment to Iraq or Afghanistan had been in a combat role, the rate of PTSD was 17%\(^4\) compared to 6% among veterans whose last deployment to Iraq or Afghanistan was in a service support role.

**Number of deployments**

g. Among serving regular Royal Marines and Army personnel, there was no evidence that a greater number of deployments was associated with worse mental health outcomes. This is in contrast to US data which shows worse mental health in those who have deployed more often. It is important to note that US deployments are longer than UK deployments.

2. **MENTAL HEALTH (RESERVES)**

a. In 2004/6 and 2009/10, deployed reservists had higher rates of PTSD compared to deployed regulars, but these differences have not persisted. By 2014/16, the prevalence of PTSD in deployed regulars and reserves was the same (7% in each). PTSD has been consistently higher in deployed reserves versus non-deployed reserves and in non-deployed reserves compared to non-deployed regulars.

b. Alcohol misuse was lower in reserves than in regulars across all time points, but the prevalence in deployed reserves did not decline over time as we have found in regulars. In 2014/16 alcohol misuse was significantly higher among deployed reserves than non-deployed reserves.

c. The increase in mental health problems, and associated difficulties, in deployed reserves compared to non-deployed reserves persisted over five years between 2009/10 and 2014/16, although the nature of the difficulties experienced varied a little. In 2004/6, compared to non-deployed reserves, deployed reserves were more likely to report higher rates of CMD; in 2009/10, they reported higher rates of PTSD and in 2014/16, they reported higher rates of PTSD, CMD and alcohol misuse.

3. **SUICIDE AND SELF-HARM**

a. Overall, rates of suicide are lower in the Armed Forces than they are in the general population. However, in the last five years there was an increase in the rate of suicide among Army males from six per 100,000 in 2014 to 15 per 100,000 in 2018. Whilst the rates of suicide in the Naval service and RAF remain below the UK general population rate, since 2017 the rate in Army men is the same as the UK general rate\(^5\). Young veterans (aged 16-24 years) or those classified as early service leavers are also at an increased risk of suicide although this data is now more than 10 years old. This increase is influenced mainly by pre-Service vulnerabilities, such as childhood adversity\(^6\). Self-harm in Service personnel appears mainly impulsive, is not associated with deployment and is a poor predictor of subsequent increased suicide risk. The longer an individual stays in the military, the lower the suicide risk: long-serving personnel appear to be an increasingly select and resilient group.

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\(^4\)This figure should not be misinterpreted; this does NOT mean that 17% of all personnel who last deployed in a combat role developed PTSD.
\(^5\)Factors other than combat may well explain the PTSD rate in this specific group; we also know that mental health problems are associated with discharge from Service.
b. It is not true that “more Falklands Veterans died of suicide than in conflict”. But regardless of absolute numbers, what matters is whether the suicide rate is higher among Falkland veterans compared to members of the Armed Forces who did not deploy to the Falklands, or the general population. Defence Statistics (Health) has shown that neither is true.

c. Findings from our cohort study data show that the rates of self-harm have significantly increased from 2% among serving personnel and 5% among veterans in 2007/09 and to 4% and 7% in 2014/16 in the two groups respectively. Veterans were more likely to report self-harm than serving personnel. Current mental disorder symptoms, stigmatization, poor social support, suicidal ideation and seeking help from medical sources were all significant determinants of lifetime self-harm.

4. SCREENING

a. KCMHR completed the first ever randomised controlled trial of post-deployment mental health screening. This showed that mental health screening and the provision of tailored advice carried out with around 9000 personnel within 6 to 12 weeks since the end of deployment had no impact on either mental health or help seeking; at present post deployment screening cannot be recommended.

b. Pre-deployment mental health screening does not reduce the rate of post-deployment mental health problems and fails to accurately detect those at risk of poorer post-deployment mental health. The simplest way of remembering is that for every person that is correctly identified as being at risk, five are incorrectly identified, with unacceptable consequences for the person, their family and the Armed Forces. Screening may lead to false reassurance of psychological robustness and also be discriminatory.

5. HELP-SEEKING

a. The most recent KCMHR interview study (2015/16) suggested that help-seeking was increasing among both serving personnel and those who have left service. One third of those with recent mental health problems had accessed a mental health specialist and half had consulted a GP or Medical Officer.

b. Those who misused alcohol were the least likely to seek help.

c. Overall, around 7% had not sought any help at all for their mental health problems.

d. Ex-serving personnel were less likely to speak to friends, colleagues and other non-medical professionals than serving personnel but they were more likely to visit the GP/Medical Officer than serving personnel.

e. One paradox is that nearly everybody said that they would be willing to use mental health services for their mental health problems, while in practice only about a third did so. The commonest reasons for not seeking help are the belief that their emotional problem is not sufficiently serious to warrant support, they wish to deal with the problem themselves or question the quality of mental health services.

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f. Although mental health-related stigmatisation prevents help-seeking, the preference of military personnel to deal with their own problems themselves is a bigger barrier to care. We found that levels of stigma in the UK military have been declining since 2008 and also that recent service leavers are seeking help more rapidly than ever before. Stigma appears to be particularly problematic for those who have not accessed mental healthcare before.

g. Unwillingness to use mental health services is a general problem across society and is not specific to the UK Armed Forces. The same pattern of help-seeking and reluctance to seek care has been found in the US, Canadian and Australian militaries.

6. **VIOLENCE AND OFFENDING**

a. The Ministry of Justice (MOJ) estimates that about 3% of the prison population in 2020 have served in the UK military.\(^{12}\) This is lower than expected, and contrasts with common media/press narratives.

b. Although they are not more likely to be in prison, in absolute terms, ex-service male personnel still constitute a notable subset of the adult male prison population. They are also more likely to be in prison for a sexual offence or violence against the person than the general population. Rates of acquisitive offending are, however, lower than in the general population.

c. Self-reported violence increases after deployment and is associated with pre-Service adversity, alcohol misuse and PTSD. Personnel who deployed in a combat role are twice as likely to report violence on return from deployment compared to personnel deployed in other roles. However, higher levels of pre-enlistment childhood adversity and deployment related mental health problems account for much of this increased risk.

d. **Those who have served have a lower lifetime rate of criminal convictions than those who have not.** However, this is not true for violent convictions, which are increased. The main associations of offending are age, gender and previous convictions. Violent offending is not associated with deployment *per se*, but is associated with holding a combat role and the link is mediated by alcohol use, traumatic exposures and PTSD.\(^{13}\)

e. National data from Liaison and Diversion services collected in 2015-2016 found that among veterans, the presence of an anxiety disorder [which might include PTSD] was associated with interpersonal violence. Alcohol misuse was associated with increased motoring offences and substance use was associated with increased acquisitive offending.\(^{14}\)

7. **RELEVANT IN-SERVICE POLICY INITIATIVES**

**Reserves Support**

a. The Veterans and Reservists’ Mental Health Programme (now incorporating the medical assessment programme) was set up in response to KCMHR findings on Reservists’ mental health. Uptake has been low, but the service appears to be clinically and occupationally effective.


Trauma Risk Management

b. The peer support programme TRiM (Trauma Risk Management) aims to help trauma-exposed personnel get good support and to encourage seeking professional care when that is needed. A randomised controlled trial found that TRiM was a safe and acceptable approach; it is now being used across the UK military. TRiM may help people access social support and mental healthcare following deployment and in non-military studies its use is associated with a reduction in traumatic-event related sickness absence and an increase in seeking professional help.

Leadership, Morale and Cohesion

c. Our deployment studies confirm that good leadership, morale and cohesion are the main determinants of good mental health when deployed, rather than exposure to traumatic incidents. However, events at home, including relationship problems and lack of family support are as important as combat exposure in impacting troop’s mental health which is consistent with Armed Forces policies on supporting service families.

Deployment Clinical Care

d. Our evaluations of clinical support provided during operations suggest that the provision of mental healthcare in the operational setting is associated with good occupational outcomes both in the short and longer-term.

Third Location Decompression

e. Decompression is popular, although personnel are initially reluctant to engage with it. Our research suggests that it has a modest positive impact upon mental health and alcohol misuse, but not post-deployment readjustment and is less helpful for troops with the highest levels of combat exposure. It appears equally useful for individual augmentees and personnel in formed units.

UK Battlemind

f. In a large randomised controlled trial, a UK version of the US post-deployment Battlemind training did not reduce rates of PTSD but led to a modest decrease in problem drinking.

Mental fitness

g. HeadFIT is an initiative developed specifically for Defence personnel which aims to help foster mental fitness through various online self-help tools and resources. Our service evaluation found that HeadFIT was well received by MOD beneficiaries with most agreeing that the tools could support them to foster their mental fitness. The results also showed that many personnel felt that they would use HeadFIT if their mental health was poor. A thorough communications and implementation strategy would be needed to ensure widespread and sustainable uptake of HeadFIT.

8. RISK-TAKING

a. Our cohort studies have shown that risk-taking behaviour such as unsafe driving or alcohol misuse was more common among regulars and reserves who deployed to Iraq or Afghanistan. This had declined in 2009/10 and continued to do so up to 2014/16. A number of factors including increasing age of many cohort participants, the introduction of a hard-hitting in-service road safety campaign and changes in
driving practices on deployment may have contributed to the decline. However, for deployed reserves, but not regulars, the rate of risky driving remained elevated following deployment.

b. A study of help-seeking showed that younger age, being in a relationship, probable PTSD, common mental health difficulties and traumatic brain injury were associated with risk-tasking behaviours in veterans.15

9. FAMILIES & RELATIONSHIPS
a. The majority of regulars and reserves participating in the cohort study reported satisfaction with their intimate relationships and deployment had no effect on this finding.

b. Personnel deployed in Iraq and Afghanistan between 2009-2014 who reported negative perceived effects of deployment on intimate relationships and children were more likely to experience distress and PTSD symptoms16. However, it may also be that deployment-related mental health problems led to personnel perceiving their relationships with their families more negatively.

10. PTSD TRAJECTORIES
a. Our study using longitudinal data collected from UK military personnel over the course of 14 years found that 90% of UK AF personnel appeared resilient to symptoms of PTSD. Approximately 10% of the cohort experienced PTSD symptoms at some point over the course of 14 years.

b. Vulnerability factors for PTSD include childhood adversity and childhood antisocial behaviour, alcohol misuse and time since leaving service. Younger age and having a combat role were associated with a worse prognosis of PTSD.17

11. MILD TRAUMATIC BRAIN INJURY (mTBI)

a. Our studies have found that mTBI is associated with PTSD symptoms among personnel deployed to Afghanistan in 2011.

b. Longitudinal study data showed that mTBI reported by personnel deployed to either Iraq or Afghanistan in 2007-2008 was associated with dizziness and loss of concentration seven years later, but not with other post-concussion symptoms. The prevalence of most post-concussion symptoms increased over time in both those who had previously reported experiencing a mTBI and those who had not.18

12. PHYSICAL INJURY AND ILLNESS

a. Personnel who were medically evacuated during deployment due to a physical injury had an increased risk of developing PTSD and common mental health problems after deployment. Personnel medically evacuated from theatre because of illness were at similar increased risk of PTSD and common mental health problems on return from deployment.

13. JUNIOR ENTRANTS

a. Our cohort study (data collected between 2014 and 2016) found that there was no evidence of an increase in symptoms of CMD or PTSD in junior entrants (personnel recruited when aged 16-17 years) when compared to standard entrants. However, there was an increase in alcohol misuse, multiple somatic symptoms and self-harm in junior entrants who commenced adult service after April 2003. Monitoring these concerns in new joiners is advisable.\(^1\)^

b. Junior entrants remain in adult service for longer and do not report more difficulties than standard entrants when they leave.

14. MORAL INJURY

a. Our studies are the first to show that moral injury, or the psychological distress (often guilt, anger, shame or disgust) experienced after events which violate one’s moral or ethical code, is experienced by UK veterans. Moral injury was found to result following acts of commission, omission and betrayal during military service. Exposure to potentially morally injurious events was significantly associated with probable PTSD, CMD and suicidal ideation.\(^2\)^\(^0\),\(^2\)^\(^1\)

b. No validated treatment for moral injury-related distress exists and clinicians often report difficulty providing care to veterans with moral injury.

15. VETERANS

a. Veteran hardship can include both mental health issues such as PTSD, CMD and alcohol misuse and socioeconomic issues, such as unemployment and financial difficulties. Our research has found that veteran hardship is more related to underlying socioeconomic factors (e.g. education, childhood adversity) than military factors.\(^2\)^\(^2\)

b. Those with medical and unplanned discharges are more at risk of veteran hardship than those whose discharge is planned.

c. Around 20% of Service leavers receive unemployment benefits at some point after leaving; however this is largely concentrated into the first few months after leaving, and drops to around 2% of veterans by two years after leaving.

d. Disability benefits are less frequently claimed (between 1% and 2% of veterans at any given time), but are more persistent and the proportion does not decrease over time.

16. IMPACT of COVID-19 PANDEMIC ON VETERANS HEALTH AND WELLBEING – VETERANS-CHECK

a. Compared to our most recent cohort study sample (2014-2016), during the pandemic (June-September 2020), veterans reported a decrease in hazardous drinking from 49% to 28%, and levels of CMD remained stable.

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b. Veterans reported similar levels of loneliness (27%) compared to the general population during the pandemic, with loneliness associated with having children and having caring responsibilities. Veterans who were key workers in health and social care were more likely to report feeling lonely than veterans working in other key worker roles.

c. The COVID-19 stressors of reporting difficulties with family or social relationships, boredom, and difficulties with health, were statistically significantly associated with higher rates of CMD, hazardous drinking and loneliness, even after adjustment for previous mental health/hazardous alcohol use, suggesting a COVID-19 impact.

d. Overall, it appears that veterans have experienced the pandemic in similar ways to the general population. Whilst stable levels of CMD and reduction in alcohol use are welcome, alcohol use remains at higher levels than the general population. Additionally, there remains a substantial number of veterans who would benefit from accessing mental health and alcohol treatment/support services.

17. OLDER ADULTS

a. We did not identify any notable relationship between mental ill-health and dementia in UK military veterans over 65 years of age. The results also show no difference between those veterans with a diagnosis of dementia and those without a diagnosis of dementia, for most of the dementia risk factors explored.

b. Older (aged >65) veterans reported having ongoing physical health difficulties, such as deafness and chronic arthritis, which were perceived to be due to workplace exposure and the physically demanding nature of military service. Older non-veterans did not perceive such problems as being related to their civilian employment.

CONCLUSIONS

a. In general terms, there have been modest, but important changes in the overall mental health of UK Armed Forces personnel throughout our period of study (2004-2021). There has been a moderate increase in PTSD in recent years, largely accounted for by increases among ex-service personnel.

b. In still serving regulars with a combat role, PTSD increased from 6% in 2004/6 to 7% in 2009/10 and remained stable at 7% in 2014/16; amongst regulars in a non-combat or support role, PTSD increased from 3% in 2004/6 to 4% in 2014/16. There is little evidence of a “tidal wave” or “tsunami” of mental ill-health. However, rates of PTSD in those who have left service (overall 7%), especially those who have deployed in a combat role (17%), do appear to be elevated. This is a different picture to that reported from the US.

c. Harmful alcohol use has decreased over the years, as it has in the general population, but remains high and is now significantly increased among reservists who have deployed. Higher rates of PTSD and CMD continue in deployed reserve personnel.

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