

SHORT REPORT

Self-harm in the UK military

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Background	Self-harm in the UK military has variously been estimated at 1–5.6% compared with 4.9% in the general UK population.
Aims	To establish the overall prevalence of self-harm within the UK military, to establish the association between deployment and self-harm and to identify sociodemographic and social factors associated with self-harm within the UK military.
Methods	A cross-sectional postal survey of UK military personnel.
Results	There were 9803 respondents. The overall prevalence of self-harm was 2.3% in the UK military. Self-harm was not associated with deployment but was significantly associated with being discharged, separated, of lower rank, female and younger age, reporting no close friends or family, reporting fewer social activities, having spent time in local authority care as a child, and having adversity in family relationships as a child.
Conclusions	Contrary to predictions, self-harm in the UK military is not associated with deployment. It is linked to available social support in childhood and adulthood.
Key words	Armed forces; military; self-harm; UK.

Introduction

The prevalence of self-harm in the UK military has previously been estimated at 1–5.6% [1,2] compared with 4.9% in the general UK population [3]. Correlates of self-harm previously identified within the military; younger age [2,4], psychiatric diagnosis [4], adverse childhood experiences [1] and interpersonal relationship problems [4] reflect what is seen within the general population [5].

Previous studies into the mental health of reserves [6,7] have shown that there are often poorer outcomes within this group, which is associated with sociodemographic differences between reserve and regular personnel, and perception of experiences while on deployment. There have been no previous studies of self-harm within military reserves, but we may expect to see poorer outcomes in this population than in regular forces.

This article aimed to establish the overall prevalence of self-harm within the UK military regular and reserve populations, establish the association between deployment and self-harm and identify sociodemographic and social factors associated with self-harm within the UK military.

Methods

Phase 1 of the King's Centre for Military Health Research's cohort study was established in 2003 to examine the impact of deployment to Iraq [7] ($n = 10\,272$). Phase 2 consisted of individuals who participated in phase 1 who gave consent for follow-up ($n = 6429$), with the addition of military personnel with experience of deployment to Afghanistan ($n = 896$) and a replenishment group that was randomly drawn from those joining the UK military since 2003 (who would have had the opportunity to deploy to either Iraq or Afghanistan) to ensure that the age and rank distribution remained representative ($n = 2665$). Data were gathered through a self-report questionnaire [6].

For this study, individuals were selected from the phase 2 respondents if they had responded to the question asking "Have you ever purposefully harmed yourself (e.g. overdose)".

Measures of sociodemographic factors, childhood family relationship adversity, childhood anti-social behaviour, time spent in local authority services care

Table 1. Associations between self-harm in the UK military and demographic variables, social support, childhood adversity

	Self-harm, <i>n</i> (%)	OR (95% CI)	Adjusted OR ^a (95% CI)
Demographic variables			
Age in years (<i>n</i> = 9803)		0.94*** (0.92–0.95)	0.95*** (0.92–0.98)
Sex (<i>n</i> = 9803)			
Male (<i>n</i> = 8633)	157 (2.1)	1.0	1.0
Female (<i>n</i> = 1170)	43 (3.8)	1.85** (1.22–2.78)	1.79** (1.17–2.74)
Engagement type (<i>n</i> = 9803)			
Regular (<i>n</i> = 8127)	184 (2.5)	1.0	1.0
Reserve (<i>n</i> = 1676)	16 (0.7)	0.28*** (0.16–0.50)	0.30*** (0.17–0.56)
Marital status (<i>n</i> = 9754)			
Single (<i>n</i> = 1681)	40 (2.9)	1.48 (0.95–2.29)	0.95 (0.60–1.50)
Married (<i>n</i> = 7488)	136 (2.0)	1.0	1.0
Separated/divorced (<i>n</i> = 625)	23 (4.0)	2.02** (1.18–3.45)	2.15** (1.23–3.75)
Deployment status (<i>n</i> = 9803)			
Deployed (<i>n</i> = 6598)	124 (2.0)	0.78 (0.56–1.09)	—
Non-deployed (<i>n</i> = 3205)	76 (2.6)	1.0	—
Service status (<i>n</i> = 9780)			
Serving (<i>n</i> = 7567)	131 (1.8)	1.0	1.0
Discharged (<i>n</i> = 2213)	69 (3.5)	1.98*** (1.40–2.79)	2.34*** (1.61–3.40)
Social support			
Number of close family/friends (<i>n</i> = 9711)			
None (<i>n</i> = 293)	17 (6.6)	3.31*** (1.74–6.31)	2.79** (1.40–5.55)
1–2 (<i>n</i> = 1683)	54 (3.3)	1.60** (1.04–2.45)	1.48 (0.95–2.29)
3–5 (<i>n</i> = 3672)	67 (2.1)	1.0	1.0
6–10 (<i>n</i> = 2679)	43 (1.4)	0.69 (0.43–1.09)	0.71 (0.43–1.16)
11–15 (<i>n</i> = 563)	6 (1.7)	0.83 (0.31–2.22)	0.79 (0.30–2.07)
15+ (<i>n</i> = 821)	12 (2.2)	1.07 (0.53–2.16)	1.03 (0.49–2.16)
Family relationship adversity (<i>n</i> = 9497)			
0 (<i>n</i> = 4258)	55 (1.4)	1.0	1.0
1 item (<i>n</i> = 1886)	31 (1.9)	1.32 (0.78–2.23)	1.21 (0.71–2.08)
2 or more items (<i>n</i> = 3352)	108 (3.5)	2.50*** (1.68–3.71)	2.25*** (1.50–3.38)
Childhood adversity			
Childhood anti-social behaviour (<i>n</i> = 9655)			
Yes (<i>n</i> = 1563)	62 (3.9)	2.07*** (1.44–2.99)	—
No (<i>n</i> = 8090)	135 (1.9)	1.0	—
Spent time in local authority/social services care (<i>n</i> = 9669)			
Yes (<i>n</i> = 265)	14 (6.7)	3.25*** (1.70–6.22)	2.19* (1.07–4.50)
No (<i>n</i> = 9404)	185 (2.2)	1.0	1.0

OR, odds ratio.

^aAdjusted for age (continuous variable), marital status, sex, rank, serving status and engagement type.**P* ≤ 0.05, ***P* ≤ 0.01, and ****P* ≤ 0.001.

(where local government assumes responsibility of a child when the parent/guardian's level of care has been deemed insufficient) and number of close family/friends and social activities, were taken from the questionnaire.

Sampling and response weights were generated [6], and univariable logistic regression analyses performed to determine which demographic, social support and childhood adversity variables were associated with self-harm. Multivariable analyses were adjusted for the military demographic factors of age, marital status, sex, rank, serving status and engagement type (i.e. regular or reserve personnel). Odds ratios and 95% confidence intervals (CI) are reported. The statistical software package STATA (version 10) was used for all statistical analyses.

This study received ethics approval from the Ministry of Defence's research ethics committee and the King's College Hospital local research ethics committee.

Results

Of the 9990 phase 2 respondents, 9803 (98%) completed the question relating to self-harm. The overall prevalence of self-harm within the UK military was 2.3% (*n* = 200).

Those reporting self-harm were younger (mean age of 30.96 years (95% CI: 29.8–32.1) vs 35.7 years (95% CI: 35.5–35.9) for those not reporting self-harm). Analysis identified being separated, being in the regular forces, no longer serving, being female, and being of

younger age as independent demographic factors associated with self-harm. Deployment was not found to be associated with self-harm (Table 1).

Following adjustment (age, marital status, sex, rank, serving status and engagement type), reporting no close family or friends, reporting high levels of adversity in family relationships and having spent time in local authority care were significantly associated with an increased reporting of self-harm. Reporting of self-harm decreased as with the number of social activities reported increased (Table 1).

Discussion

The prevalence of self-harm within UK military personnel was found to be lower than in the general population and higher among regulars than reserves. Self-harm is not associated with deployment, but significant independent associations were found with being discharged (i.e. no longer serving in the UK military), female, divorced or separated, of lower rank and of younger age. Reporting no close friends or relations, adversity in childhood family relationships and few social activities were also associated with self-harm, along with having spent time in local authority care as a child.

One weakness of this study is that the data do not provide information on the timing of self-harm, which could have occurred before, during or after an individual's military service. A strength of the study is that the anonymity offered by the survey may have encouraged personnel to accurately report their self-harm behaviour.

The overall prevalence of reported self-harm within the UK military was found to be 2.3%, lower than the 4.9% prevalence reported within the general population [3]. This may reflect the 'healthy worker effect' (by which mortality and morbidity is often lower among populations in work due to the exclusion of the ill and disabled), and the UK military may be expected to have even lower levels of ill-health than the general population due to fitness and selection criteria [8].

The associations found for self-harm, including low-perceived social support assessed through reported number of close friends or family, time spent in care as a child, being female, high levels of family relationship adversity and marital status, reflect those found within the general population [5,9,10].

Self-harm was not associated with deployment, which is reassuring in terms of the health of the UK military population. As previous studies have consistently demonstrated poorer mental health outcomes among reserves [6,7], the finding from this study of lower self-harm prevalence—which remained after adjustment for both age and education—is unexpected.

Those who have left the military were found to have twice the odds of self-harm, reflecting what has been

found previously for self-harm and attempted suicide among ex-service personnel [2]. This may be a group that requires further investigation.

These findings suggest that, as in the general population, self-harm is not prevalent within the UK military, and self-harm is associated with social support in childhood and adulthood. The lack of association with deployment is reassuring.

Key points

- The overall prevalence of self-harm in the UK military was 2.3%, and it is significantly lower in reserves (0.7%) than in regulars (2.5%).
- Factors associated with self-harm in the military reflected those found within the general population.
- Self-harm was not associated with deployment.

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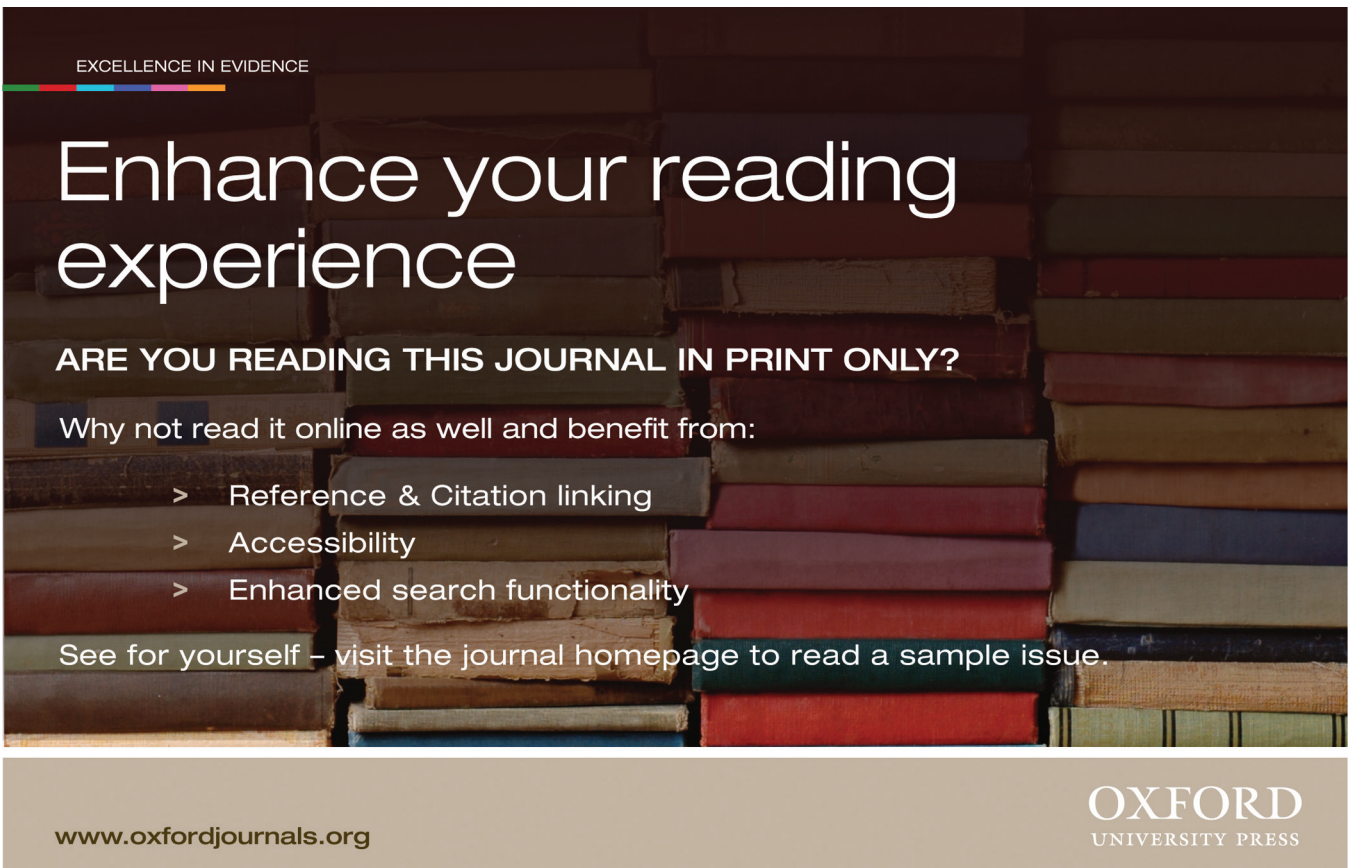
Conflicts of interest

S.W. is Honorary Civilian Consultant Advisor in Psychiatry to the British Army and a Trustee of Combat Stress. L.A.H., N.T.F. and S.W. are funded by the Ministry of Defence (MoD) but were not directed by the MoD in the writing of this publication. At the point of submission, this article will be shared with the MoD.

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