Exploring Pre-enlistment and Military Factors Associated With the Morale of Members of the UK Armed Forces

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ABSTRACT There is a paucity of evidence to show the importance of morale within military units. The aim of this study was to explore how pre-enlistment and postenlistment factors influence morale and to ascertain which has the greater contribution. A cross-sectional study of the UK military involved in operations to Iraq was conducted between 2004 and 2006. The sample was randomly selected and was representative of the UK Armed Forces. Data were collected via questionnaires and included measures on unit cohesion and leadership, childhood adversity, and current service factors (e.g., whether individuals deployed as individuals or within formed units). Although childhood adversity was found to affect self-reported morale, current service factors were found to have a greater influence.

INTRODUCTION There is a growing body of evidence that links adverse childhood experiences with negative mental health outcomes (including posttraumatic stress disorder) for individuals in the Armed Forces. There is, however, a paucity of research examining the potential for adverse childhood factors to be associated with the levels of morale, as reported by members of the Armed Forces deployed on military operations. The aim of this study was, therefore, to examine the association between childhood adversity and the subsequent effect on morale for individuals in the UK Armed Forces. It is also relevant to explore the contribution of individual’s current service factors within the Armed Forces to levels of reported morale.

If generations of military leaders are correct, then morale is one of the key dynamics involved in the successful prosecution of combat operations. In fact, British Defence Doctrine states that one of the fundamental Principles of War is the maintenance of morale. Although military and academic thinkers accept the importance of the concept of morale, what proves to be more demanding is producing an agreed definition. Manning provides a comprehensive discussion of issues relating to the subject of morale. For this particular study, it is thought appropriate to use the definition given in British Defence Doctrine, which states: Morale is defined as “a positive state of mind derived from inspired political and military leadership, a shared sense of purpose and values, well-being, perceptions of worth and group cohesion.” This definition makes clear the detail that morale encompasses other concepts including leadership and group or unit cohesion.

Cohesion has been for a considerable period regarded as a significant concept involved in the combat effectiveness or performance of military units. There are many studies that provide evidence supporting the idea that cohesion influences morale and health outcomes for military personnel. Equally apparent that there are numerous different definitions of cohesion and leadership. Siebold provides a good summary of the work surrounding the definition and measurement of cohesion and gives some insight into the leadership concepts. Wong et al in their qualitative examination of what motivates soldiers to fight sought the views of U.S. forces personnel, Iraqi Army prisoners of war, and embedded media personnel, all of whom were participants in the Iraq war. This report suggests that unit cohesion remains the primary motivation for soldiers in combat.

In his examination of the Israeli Armed Forces, Catignani emphasizes the importance of good leadership in lowering levels of combat stress for unit members. The importance of a leader providing information to his/her subordinates is also stressed as it is suggested that communication may help to lessen fear in combat situations. It has been suggested that service members’ inclusion in a highly cohesive and effective unit that has good leadership will provide the individuals within the unit the assurance that they will be able to successfully prosecute the required task. Conversely, it might be suggested that if the unit was not cohesive and/or the leadership was poor, there could be more negative consequences, such as increased anxiety, for the individuals both during and after their deployment. Peer support and sound leadership have been identified as factors supporting the soldiers’ abilities to deal with stress. Britt et al suggested that measurement of unit functioning and leadership were useful indices in the prediction of morale levels for U.S. peacekeeping soldiers deployed to Kosovo.

Rademaker et al in their study of the Dutch Armed Forces suggest that adverse childhood experiences were associated with lower levels of self-directedness and cooperativeness. It might be extrapolated from this finding that individuals who were less self-directed would perhaps not respond well to leadership and being less cooperative may be linked to not feeling part of a cohesive unit. It was further suggested that exposure to early trauma (such as adverse childhood experiences) may be associated with poor impulse control and poor interpersonal behavior. This finding suggests that early trauma

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exposure may subsequently make it difficult to engage in social interaction, which in turn may negatively impact group cohesion. Rom and Mikulincer suggest that attachment theory may provide useful insight for explaining individual differences in group cohesion. It is further suggested that it may be relevant to consider that attachment style in early relationships has a direct contribution to subsequent group cohesion and group attachment styles.

As part of the Millennium Cohort study examining U.S. Military personnel, it was observed that male and female members of the U.S. Military who reported some form of prior assault before deploying on combat operations were twice as likely to report new-onset posttraumatic stress disorder symptoms on return from operations than members of the U.S. Military who did not report any prior assault. This result clearly reinforces the theory that previous adversity has a direct impact on the potential for subsequent development of psychological problems. It might be argued that adverse childhood experiences lower an individual’s resiliency to traumatic situations, thereby making them more vulnerable to poor health outcomes. It may also be the case that if an individual is less resilient, they may not feel part of a robust team and therefore report lower levels of group cohesion and leadership. It is suggested that the short- and long-term effects of adverse childhood experiences include health and social problems. It might be considered that if an individual is affected by social problems, they may find it difficult to be part of a cohesive team and may feel that senior leadership treats them differently than their peers. The knock-on effect of this is that the perceived levels of lower morale may reinforce negative behavior and feelings associated with adverse childhood experiences.

As suggested by Brailey et al., the investigation of unit cohesion and leadership is relevant as they are variables that have the possibility of being modified and may prove to be of utility in the pursuit of factors that enhance preventative mental health provision.

Within the current study, it is hypothesized that perceptions of comradeship and peer communication are related to unit cohesion. In addition, it is hypothesized that perceptions about how interested senior ranks were in the views of participants and feeling informed about what was going on within participants’ units are related to assessments of leadership. By using the data gathered as part of the King’s College Military Health Research study of the 2003 Iraq war, it was possible to examine the relationship between adverse childhood experience and subsequent reporting of unit cohesion and leadership outcomes. It is also important to examine the factors associated with individuals’ current service within the UK Armed Forces to determine whether current service factors have a greater determinance on morale than pre-enlistment childhood adversity. We hypothesized that adverse childhood experience would be positively associated with lower reported levels of unit cohesion and leadership. It is important to try and understand whether adverse childhood experiences have an impact on an individuals’ reported levels of morale as it may identify areas of concern, which will allow for the development of future strategies to better deal with the situation.

**METHODS**

**Sampling**

Between June 2004 and March 2006, we conducted a cross-sectional study of the UK Armed Forces. Two groups were surveyed: the first had deployed to the 2003 Iraq War and the second were serving in the Armed Forces at the time of the war but had not deployed. Personnel in the second group may have deployed on later operations to Iraq. The sample was randomly selected from across the UK Armed Forces. The sample included the Naval Services, Army, Royal Air Force (RAF), Officers and other ranks, men and women, and regulars and reservists (e.g., members of the Territorial Army). Reservists were over sampled at a ratio of 2:1. This was due to hypothesized differences in the health of reservists, which have been described elsewhere, and predicted problems with surveying them because of poor quality contact details. Details of sampling and methods of data collection are described elsewhere. In this article, we have restricted our analyses to participants who had deployed during the Iraq War or who have subsequently deployed to Iraq.

**Information**

Data were collected through detailed questionnaires. A section of the questionnaire dealt with issues of unit cohesion and leadership. Participants were asked whether they agreed or disagreed with 4 statements. Among them, 2 statements were connected to unit cohesion: “I felt well informed about what was going on.” and “I could have gone to most people in my unit if I had personal problems,” and the other 2 were connected to issues of leadership: “my seniors were interested in what I did or thought” and “I felt well informed about what was going on.”

We measured pre-enlistment vulnerability factors and service factors that may have influenced unit cohesion. Pre-enlistment factors were measured using a checklist of childhood adversity. Broadly speaking, these factors could be divided into subjective or objective measures. For example, one of the subjective measures was being shouted at regularly by a parent or caregiver, while an objective measure was having spent some time in local authority care during childhood. We were concerned about confounding by recall bias and so choose to exclude childhood adversity factors deemed to be subjective. Our measure included 5 items. These were having spent time in local authority care, being suspended or expelled from school, regularly having played truant, being hit on a regular basis by a parent or caregiver, or having a parent or caregiver with a drug or alcohol problem during the individual’s childhood.

Service information pertinent to unit cohesion was collected within different sections of the questionnaire. These variables...
included socio-demographics, role within unit, deploying as an individual or within a formed unit, and enlistment status (either regular or reservist).

**Analysis**

Multiple logistic regression models were fitted to calculate odds ratios (ORs) and 95% confidence intervals (CIs) for the associations between service factors and reported worse unit cohesion and leadership. This was repeated to explore associations between reporting worse unit cohesion and leadership and pre-enlistment vulnerability. Analyses were weighted according to sampling fractions and adjusted for service (Naval services, Army, and RAF), rank (whether Officer or not), gender, age, medical fitness, and enlistment status (regular or reserve). Analyses were conducted using STATA 9 (Stata Corporation, College Station, Texas).

**RESULTS**

The response rate was 10,272 (61%) in our contacted sample. A total of 160 individuals (0.9%) refused to participate in the study. Of these, 5,302 participants had deployed to Iraq since 2003 and as such had answered the questionnaires pertaining to unit cohesion and leadership. Fourteen percent of the participants were in the Naval Services, 68% in the Army, and 18% in the RAF. Among the participants, 16% were Officers, 8% were female, and 10% were in the reserves. The median age was 32.2 years (interquartile range 26.4–38.2 years). An intensive follow-up study of nonresponders reported elsewhere ascertained that nonresponse was largely due to our difficulty in finding people or participant inertia, with no significant health differences between responders and nonresponders.16 Furthermore, there was no significant difference in the rates of medical “downgrading” (a measure of medical employment status) between responders and nonresponders.20

Table I reports the associations from multiple logistic regressions between socio-demographic variables and unit cohesion and leadership. In general, women, participants of lower rank, reservists, and those within noncombat units reported lower levels of both unit cohesion and leadership within their units. Evidence was observed that as age increased, scores for unit cohesion decreased in respect of participants no longer feeling they could talk to people within their unit about problems. However, the opposite was true for the 2 questions related to leadership, where as age increased participants reported feeling that seniors were more interested in what they thought or did and felt better informed about what was going on within their respective units. Although participants who did not deploy with their parent units reported lower unit cohesion, they did not report any differences in terms of leadership.

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<th>TABLE I. Associations Between Socio-demographic Variables and Poor Unit Cohesion/Leadership Scores</th>
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<td><strong>Unit Cohesion Variables</strong></td>
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*aAdjusted for age, sex, service, rank, fitness, and regular/reservist status.*

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Table II explores associations from multiple logistic regressions between unit cohesion and leadership and childhood adversity. We found that leadership factors were more likely to be significantly associated with childhood adversity. Four of the 5 childhood adversity factors were associated with feeling that seniors were not interested in what an individual did or thought. In addition, often playing truant and having spent time in local authority care were associated with lower feelings of comradeship.

DISCUSSION

Overall, our results suggest that current military factors have a greater effect on unit cohesion than pre-enlistment factors. However, issues related to not feeling that you belong to a group, measured through lower levels of comradeship, and not feeling like senior ranks are interested in what you did or thought were related to reporting childhood adversity. The observed associations between having spent time in local authority care or having regularly played truant with lower comradeship deserve comment. We hypothesize that problems related to not forming bonds with childhood friends or parents because of either being in local authority care or being absent from large amounts of school may cause lasting problems with forming the necessary bonds to achieve a feeling of comradeship with members of your unit.

It is interesting to note that a significant relationship was reported between experiencing any of the measured adverse childhood experiences and the belief that senior ranks were “not interested in what I did or thought” (with the exception of having spend time in local authority care).

Female members of the Armed Forces and reservists were more likely to report low levels of cohesion and worse levels of leadership. It might be suggested that both females and reservists may be less integrated into a cohesive unit than their male or regular counterparts and may therefore suffer from minority status. Unsurprisingly, those who did not deploy as part of their parent unit reported lower levels of unit cohesion; they did not, however, report lower levels of leadership. It was further demonstrated that noncombat troops reported lower levels of cohesion and leadership than combat troops. This finding may direct military leaders to target specific areas to try and engineer higher levels of morale.

Iversen et al found that individuals who showed higher background vulnerability were significantly more likely to score on the measures of ill health. It is suggested that the present study complements and furthers the Browne et al study, which demonstrated an association between comradeship and better psychological health for male UK Armed Forces personnel deployed to Iraq.

Studies have shown that low morale and weak social support networks within a unit were associated with increased risk of posttraumatic stress symptoms. A recent study identified that unit cohesion and intensity and duration of combat exposure are factors linked to the reporting of psychological symptoms during operational deployment. This study also reported that the vast majority of individuals who accessed social support on return from their deployment did so from those close to them, especially those with whom they had deployed.

Greater cohesiveness and superior morale have been linked to providing an individual with increased resilience against physical and psychological breakdown. Conversely, low social support has been identified in numerous studies as a risk factor in veterans for various mental health issues. This is suggestive that higher levels of social support, which is linked to...
unit cohesion, may help to mitigate against the development of various mental health problems. Siebold asserts that research has empirically shown that cohesion is related to combat performance and that the relationship between cohesion and performance can be affected by strong or weak leadership.9

The study benefited from several factors. The sample was representative, randomly selected, and included both serving and ex-serving members of the UK Armed Forces. In addition, measures of unit cohesion, unit leadership, and adverse childhood experiences were recorded from a large population shortly after they returned from their deployments to Iraq between 2003 and 2006. The benefit being that personnel had been exposed to similar conditions during their deployment, and so differences between unit cohesion and unit leadership could not be explained by a differing of conditions within theatre.

There are, however, important limitations that need to be considered. Data were collected retrospectively and reverse causality cannot be excluded. However, the authors made efforts to reduce confounding by restricting childhood adversity to more objective experiences (e.g., spending time in local authority care) to reduce issues of recall. A further consideration is that the adverse childhood experiences’ measure may have been slanted toward more typically male experiences. The result being that the reasons females reported lower levels of unit cohesion may not have been investigated.

It is suggested that the psychological state of members of the Armed Forces is correlated with their subsequent levels of achievement in the military and their mental state once they have left.23 Yan et al23 recommended that to improve the long-term psychological results for military recruits who have suffered adverse childhood experiences, they should be offered group education and individual counseling, perhaps part of this group work might involve helping individuals develop the skills to integrate into highly cohesive units.

CONCLUSIONS
Our analysis indicates that experiences of cohesion and leadership are for the most part not linked to adverse childhood experiences. These findings reinforce the previous work, suggesting that unit cohesion and leadership are variables that are of utility for intervention when trying to improve the mental health outcomes for members of the Armed Forces on deployed operations.17

The results may allow the military to better focus on scarce resources to help individuals who report that they often played truant from school or who spent time in local authority care in order to attempt to improve the levels of cohesion experienced. In a recent Finnish study, it was found that there was a predictive association between psychiatric problems in childhood and being unable, through psychosocial impairment, to serve in the Armed Forces.24 The Multimäki et al24 study also reports that those children who were reported to have psychosocial difficulties at age 8 were still capable of serving in the Finnish Armed Forces. This finding highlights the importance of careful targeted screening as opposed to some form of blanket exclusion based on discreet screening criteria. Our results reinforce this approach of carefully targeted screening to identify and help those who may be at greater risk of not being part of a cohesive unit.

It might be suggested that these findings may be of benefit to employment areas outside the Armed Forces. For example, the Emergency Services or other areas of employment where staff are likely to experience highly stressful or traumatic situations may wish to focus on leadership and group cohesion as areas that can be successfully managed in attempts to promote positive health outcomes.

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