

THE OPERATIONAL MENTAL HEALTH CONSEQUENCES OF DEPLOYMENT TO IRAQ FOR UK FORCES.

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Abstract

UK Forces are currently engaged in high tempo, high intensity operations in both Iraq and Afghanistan. Concern has been raised about the impact of current operations upon the mental health of Service personnel. Using data gathered from deployed Field Mental Health Teams, a random sample of UK based non-deployed Community Mental Health Teams and services dedicated to mobilising, de-mobilising and to de-mobilised Reserve Forces, this paper explores the current mental health burden for UK Forces. At present, operationally related psychological disorders do not appear to be a substantial concern for Regular Forces, although for the minority that suffer such problems they are both distressing and of occupational relevance. Proportionately there are more mobilised Reserve Forces seeking help for mental health problems than Regular Forces on operations, but the overall burden that they currently place upon the Defence Mental Health Services is small. There is at present no evidence of an epidemic of mental health problems amongst either Regular or Reserve Forces veterans of the Op TELIC deployment, however, this may change in the future given the evolving nature and fluctuating intensity of operational activity.

Mental Health and Operational Deployment – The Scope of the problem

Introduction

Concern about operationally related psychological disorders among Service personnel is a recurrent theme for the media who are sometimes keen to exploit perceived weaknesses in government policy. In addition, radio and television coverage has helped to maintain public awareness. Claims and counter claims are made in public forums, yet few examine the details of the issue, preferring to focus upon eye-catching banner headlines, such as 'MoD 'deserts' teen soldiers scarred by Iraq' (The Sunday Times March 18, 2007), 'Rising mental anguish of troops forced back to war zones too fast', 'Dispatches from Hell' (Daily Mail Friday August 3 2007) and 'Iraq Troops suffer stress and alcoholism' (The Guardian Friday August 3 2007). Media speculation of this kind is often based upon ill informed judgements. This paper addresses the problem of operationally related psychological disorders by examining data from a range of sources with a focus on current operations in Iraq. It does not address the broader question of mental health after deployments.

Epidemiological Data

What is the current prevalence of operationally related psychological disorders in the UK Armed Forces? In a large random sample of UK Armed Forces (n= 10272), the King's Centre for Military Health Research (KCMHR) compared health outcomes in personnel who deployed to the 2003 war in

Iraq (Op TELIC) and subsequent follow-up operations with those who did not (Hotopf et al. 2006). The results showed little difference in the mental health status of those deployed other than a modest increase in the number of individuals with multiple physical symptoms in those who had deployed and slightly increased rates of Posttraumatic Stress Disorder in reservists and those involved in combat. So the claim that recent war-fighting operations in Iraq have produced large numbers of psychological casualties in excess of those seen elsewhere, suffering particularly from PTSD is not supported. However, the situation on the ground in Iraq has undergone change since this study was conducted and many have been re-deployed to Iraq, some on a number of occasions. A follow-up study by KCMHR is planned for autumn 2007, the results of which will help to further illuminate the current mental health status of UK Forces.

Mental health during deployment

Another important question of operational and health relevance is what is the visible burden of mental ill health in Service personnel that manifests during deployment on operations? An insight can be gained by examining the data concerning personnel who sought referral for a mental health problem whilst on operational deployment. The data collected during Op TELIC 1 (the combat and follow-up operations phase of the deployment between February and June 2003) is currently being cleaned and reviewed. 287 Service personnel were assessed by deployed Field Mental Health Teams (FMHTs) between 1 Feb and 31 Jul 2003. The breakdown of the cases is shown in Table 1.

The most common diagnostic category was that of Adjustment Disorder (n=138). 81 of the Adjustment Disorder cases (58%) were recorded as being attributable to a known cause. Of these, 49 (60%) were specifically attributed to operational or theatre related factors. Could these have been early presentations of developing PTSD? There were no cases

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of PTSD recorded amongst the FMHT referrals during Op TELIC 1, even though the disorder could have developed during the three to six month surge deployment period as this would have allowed sufficient time, one month, for symptoms to become established.

Problem	No.	%
Adjustment Disorder	138	48.3
No Diagnosis Assigned	51	17.8
Depressive Episode	42	14.7
Acute Stress Disorder	22	7.7
Anxiety Disorder	19	6.6
Other Including Psychosis	4	1.4
Problematic Personality	4	1.4
Somatoform Disorder	3	1.1
Harmful Alcohol Use	2	0.7
Dysthymia	1	0.4
Total	286*	

Table 1 Op TELIC 1 – Diagnostic Outcome of FMHT Assessments Feb-Jul 03, Numbers and Percentage (%)

*Tables taken from the clinical returns of FMHTs deployed with 16 CSMR, 1 CSMR, 4 GSMR, 22 and 202 Fd Hosp and 34 Fd Hosp.

In cases where no psychiatric diagnosis was assigned the presenting problems were generally related to the medicalisation of normal distress, disciplinary or welfare issues. Given the intensity of combat for some units, it is surprising that such a small number of Acute Stress Disorder cases (n=22), were recorded (only 7.7% of the total cases). Acute Stress Disorder is known to be a predisposing factor in the development of PTSD (Solomon 1989, Brewin 1998, Yehuda 2004), whether this has translated into a large number of PTSD cases developing when troops come home will be explored later in this paper.

Accepted teaching is that in high intensity combat operations, combat stress reaction casualties can constitute a significant percentage of those rendered temporarily combat ineffective (Solomon 1989, Levav, Greenfield & Baruch 1979). In UK forces, temporary incapacitation for psychological reasons is known by a variety of terms including battleshock and operational stress reaction. It is not possible to comment on the incidence of this kind of problem as in theory at least they would have been dealt with using the principles of proximity, immediacy, expectancy and simplicity (PIES) (Jones & Wessely 2003) within the parent unit and the Tables for this form of management are not available. What is apparent from data collected from deployed mental health teams is that of the 22 Acute Stress Disorder cases seen, 12 were managed and returned to their unit, 4 were evacuated to Field Hospital facilities and then returned to their unit following a period of rest and 6 were directly evacuated out of theatre to the UK. Unfortunately, it is not possible to establish from the available data why the evacuation route was chosen for the latter.

The data shown in Table 1 represent a small fraction of the deployed force which peaked during major combat operations during March and April 2003 at 46000 and then reduced to 18000 at the end of May of that year. Several explanations may underpin the fact only a small number of the deployed force presented with a mental health problem. Firstly, stigma is known to influence the decision to come forward for mental health assessment, (Corrigan 2004) and some may have chosen not to report sick. Secondly, there may be a 'well warrior effect' (Hotopf & Wessely 2005) operating as those military personnel who deploy to operational theatres may be less

susceptible to the effects of mental ill-health than those who do not. In a study of 4500 UK Armed Forces personnel, Rona et al (2006) examined the role of psychological symptoms in the employability of medically downgraded personnel. 12.4% of the sample were medically downgraded. Downgraded personnel were more likely to experience psychological distress than non-downgraded personnel and 70% of the group had social or work limitations. The authors conclude that, as a consequence of physical incapacity, a substantial number of personnel who may have been susceptible to adverse psychological effects may have been prevented from deploying to the early phases of Op TELIC thus reducing the vulnerability to operationally related psychological disorders in the overall sample.

Another important reason why the numbers referred to deployed FMHTs were so small is that the fast moving nature of manoeuvre warfare may have prevented potential mental health casualties from accessing the deployed FMHTs. However, there were considerable numbers of psychiatric staff deployed to Iraq and therefore it is unlikely that a lack of FMHT availability was a major issue, especially during Op TELIC 1 when the majority of the troops were in Iraq. This is in contrast to the current situation in Afghanistan where troops can be isolated from second line medical support for lengthy periods. Analysis of referral trends reveals that there was a modest decrease in the percentage of the fighting force referred to the FMHTs which fell from 0.42% at the height of combat operations in March and April to 0.25% in May when offensive operations ceased. This may have coincided with the recovery of troops to their home base, which could have led to personnel delaying reporting sick until they got home as they chose instead to 'wait and see' if their symptoms resolved. It also coincided with a relative lull in operational activity other than routine patrolling before the insurgency gathered pace.

Mobilised Reservist Mental Health Casualties from Op TELIC 1

The plight of what some have labeled the 'Forgotten and abandoned Reservist' has been given high profile coverage in the UK press. In a report dated Tuesday 10 May 2005, BBC News stated that 'Nearly half of all Iraq War veterans seeking help for mental illness are Territorial Army Soldiers despite making up only 10% of deployments, a charity says'. This banner headline contains some truth, in that Reserve Forces have received sub-optimal mental health care following demobilization, which has now been addressed. However, Reserve Forces have always had access to the same mental health care provision on operations as Regulars and the data regarding help seeking on operations will be addressed first before turning to data regarding de-mobilisation issues.

What is the true picture regarding the mental health of Reserve Forces on operations? Of the 286 cases referred to the FMHTs during Op TELIC 1, 33 were mobilised TA Soldiers, 47 were Mobilised Reservists and 7 were of unknown status. Reserves and Mobilised TA therefore represented 28% of the total referrals. However our data suggests that they are over-represented as Mobilised TA and Reserves have consistently made up about 11% of the Forces deployed in Iraq (National Audit Office 2006). Analysis of referral trends during later Op TELIC phases reveals that the Reserve component of the deployed force continues to be over-represented in the FMHT referral figures.

Amongst the 80 referrals from Mobilised Reserve Forces, 35 (43.8%) were medical personnel. 9 cases were not classified according to status. The reason for the over-representation of medical personnel in the overall casualty Tables is explored later in this paper.

Since the outset of the large scale mobilization of Reservists and TA for Ops TELIC and Herrick, personnel passing through the Reserves Training and Mobilisation Centre (RTMC) have been offered the opportunity to discuss any mental health concerns both prior to, and following deployment. This has resulted in the screening out of some personnel who were prevented from deploying as a result of concerns about their mental health status and the referral of some for specialist opinion. Despite having open access to a resident mental health team, the same barriers to effective care, namely, the fear of stigmatization, probably cause some not to declare their problems and proceed on deployment. These personnel may therefore have deployed unwell and may possibly have come to the attention of the FMHT in theatre once their symptoms were either spotted by a line manager or the individual effectively 'overcame' their beliefs about stigma. However, it has not been possible to estimate the level of this kind of help-seeking.

More can be learned by examining the scale of secondary referrals from the RTMC Mental Health Team both at a qualitative and quantitative level. The Department of Community Mental Health (DCMH) proximal to the RTMC has provided the facility, along with other departments, for specialist Consultant Psychiatrist assessment, specialist nursing assessment and also treatment for mobilising and de-mobilising Reservists. During the 3 year period following the start of current operations in Iraq, the proximal DCMH dealt with 52 referrals from the RTMC Mental Health Team. The diagnostic breakdown of these cases is shown in Table 2.

Diagnosis	No.	%
No Psychiatric Diagnosis Assigned	16	31
Adjustment Disorder	14	27
Depressive Episode	11	21
Harmful Alcohol Use	3	6
Acute Stress Disorder	2	4
PTSD	2	4
Anxiety Disorder	1	2
Disturbance of Behaviour	1	2
Deliberate Self Harm	1	2
Mixed Anxiety & Depression	1	2
Total	52	

Table 2. The Diagnostic Categories of Mobilised TA and Reservists Referred to a Military DCMH for Specialist Opinion, Number and Percentage (%)

Only a small number of Mobilised TA and Reservists are referred for specialist opinion by the RTMC Mental Health Team either immediately prior to, or on return from operations. The majority who are referred have either no psychiatric disorder (n=16) or adjustment disorders (n=14) which, by their nature, should be a transitory problem that will probably resolve spontaneously, with 11 (21%) suffering with clinical depression. Only 2 cases of PTSD (4%) were diagnosed in this sample. One case was associated with having sustained a gunshot wound and was complicated by alcohol dependence. The second case was the reactivation of spontaneously resolved PTSD resulting from a mine strike sustained during operations some years ago. This compares with 8 cases of PTSD amongst 338 Regular Army referrals (2.4% of the referrals) to the same DCMH. The overall pattern of pathology amongst referred Reservists is similar to that found in other DsCMH where low rates of PTSD are also observed. Thus, although there is an increase in mental health problems in reserves this falls far short of an epidemic.

De-Mobilised TA and Reservists

Recent UK (Browne et al, 2007) and US data suggest that Reserve Forces report psychological symptoms in greater proportions than Regular Forces. (Hoge et al 2006). In both studies, significant numbers of Reservists describe more common mental ill-health problems than their Regular Forces counterparts and non-deployed Reserve Personnel. In addition they experience greater levels of general fatigue. As a consequence of the concern for de-mobilised Reserve Forces, the MoD established the Reservist Mental Health Programme (RMHP) at Chilwell which allowed demobilised Reserve Forces to access military mental health care should they have an operationally related psychological disorder, however, this provision does not apply to regular personnel who have left the service.

The RMHP is a new build co-located with the Reserves Training and Mobilisation Centre. The program is open to Reservists who have been de-mobilised since 2003 and who have requested help with mental health problems by way of their GP, or by direct referral to the RMHP with supporting medical documentation from their GP. The RMHP is specifically concerned with demobilised Reservists and incorporates a well staffed call centre, resident clinical staff who can call upon reinforcements at any time, an administrative cell, database management and it has an associated web site. Planners anticipated a potential initial surge of 600 personnel in its first 6 months of business before achieving steady state.

In practice the first 6 months of operation, the RMHP arranged 29 assessment appointments and at the time of writing 22 Reservists have been assessed. Of these 15 were categorised as operationally attributable and requiring further assessment in a DCMH and 7 were returned to their GP with no further action required as the problem presented could not be attributed to operations. The majority of the 15 referred on for assessment in a DCMH required only minimal intervention or no further action. The main presenting problems were associated with non-operational social and environmental events, historical personal factors and ongoing difficulties in relationships. Of particular interest is the relatively low frequency of direct causal relationships between operational events and experiences and the development of mental ill health in theatre. However, an interactive effect between deployment and concurrent socio-environmental issues is present and is in keeping with that described by Browne et al in their study of Reserve personnel.

The lack of uptake of the RMHP may be due to, in part, a difficulty in publicising the facility during the early roll-out, this may have resulted in reduced awareness of the programme. Steps have been taken to rectify this although, to date, no increase in the rate of referral has occurred.

In summary, the available data does not support the notion that there is widespread development of mental health problems in demobilised TA and Reservists which is directly attributable to mobilised service. It is of course possible that Reservists who are experiencing psychological problems do not wish to, or cannot access the RMHP. Also, it is possible that charitable organisations and the NHS are dealing with large numbers of Reservists, however, these data are not available. It is also possible that unknown numbers of Reservists are being effectively treated by their GPs or within civilian CMHTs, again, this Table is at present unknown.

Regular Forces presenting in the non-deployed setting

Turning to Regular forces, what can the clinical data tell us about the pattern of mental ill health amongst serving personnel who report sick and are referred to a DCMH when

serving in their home base? Table 3 shows the pattern of psychopathology amongst 875 randomly sampled Army referrals made to two UK based non-mobilised Mental Health Teams during a busy period of activity in both Op HERRICK and Op TELIC.

Diagnosis	DCMH1	DCMH2	Total	%
No Psychiatric Diagnosis Assigned	94	133	226	25.8
Adjustment Disorder	62	156	214	24.5
Harmful Alcohol Use	43	32	75	8.6
Depressive Episode	50	76	126	14.4
Deliberate Self Harm	19	15	34	3.9
Anxiety Disorder	27	90	117	13.4
Acute Stress Disorder	13	3	16	1.8
PTSD	8	5	13	1.5
Personality Disorder	3	3	6	0.7
Sleep problems	1	3	4	0.5
*Other	18	21	39	4.5
Total	338	537	875	

Table 3. A Random Sample of Army Referrals to 2 DsCMH During the Period February 2003 to February 2006

*Identified as Having a Mental Health Problem but no Diagnosis Recorded

Adjustment Disorder accounted for 18.3% and 29.1% of referrals in each DCMH. The majority of the Adjustment Disorder cases are related to non-operational factors and represent a homecoming issue rather than a reaction to traumatic or stressful events encountered during the tour. Most represent a prolonged and sometimes difficult reaction to normal life events. Again there is little evidence that deployment to operations results in an epidemic of operationally related psychological disorders amongst regular forces. There were only 16 cases of ASD and 13 of PTSD reported in the combined DCMH figures which differs from the rates recently reported by the Defence Analytical and Statistical Agency which showed a statistically significantly higher rate of PTSD among service personnel identified as deployed to Op HERRICK/TELIC) theatres of operation compared with those not identified as deployed there (Corbet & Blatchley 2007).

Deployed Field Mental Health Teams

A final part of the clinical picture is the activity of deployed FMHTs deployed during all operations in Iraq from the initial warfighting phase through to the most recent available data submitted during Mar 2007 (Op TELIC 9). What can be inferred from the overall pattern of clinical referrals made during operational deployment? Table 4 shows the diagnostic categories for 1036 sequential referrals made to the deployed FMHTs during Op TELIC 1 from Jan/Feb 2003 through to Mar 2007. This includes the Op TELIC 1 data discussed earlier in this paper. A further 211 referrals were seen during this period, however no diagnosis was recorded in the clinical records and they are not included in the analysis.

Again, the pattern of referral is striking in that there are only small numbers of PTSD cases are represented in the figures and the bulk of cases are adjustment disorders, mood disorders and cases where it was not possible to assign a diagnostic category. Again, FMHTs reported that referral resulted from the medicalisation of normal reactions to difficult circumstances, disciplinary breaches and deployed Medical Officers responding to Commander's concerns. It may also be that medical staff and Commanders were keen to have an "expert" opinion from the FMHT perhaps out of caution or concern about subsequent complaints or litigation.

Diagnosis	No.	%
Adjustment Disorder	283	27.3
No Diagnostic Category Assigned	199	19.2
Acute Stress Disorder	188	18.1
Depressive Episode	167	16.1
Anxiety Disorder	84	8.1
Not Recorded	30	2.9
PTSD	15	1.4
Mixed Anxiety and Depression	13	1.3
Problematic Personality	12	1.2
Somatoform Disorder	10	0.1
Harmful Alcohol Use	11	1.1
Psychosis	7	0.7
Other	17	1.6
Total	1036	

Table 4 Diagnostic Outcomes for Referrals to FMHTs Deployed to Op TELIC from Feb 2003 to Mar 2007, Number and Percentage (%)

In order to gain some insight into the potential burden of illness once troops come home, we examined the ASD cases. As was discussed earlier in this paper, ASD is a known precursor of PTSD and we found it to be the third largest diagnostic category. The FMHT records detailed exposure to a discrete traumatic event in only 29 cases out of 188 (15.4%). These are shown in Table 5

Incident	Number
Reactivation of ASD (Previous Mine Strike)	1
Mortar Attack	1
Assault	1
Shrapnel Injuries	1
Shooting Incident	2
Rioting	2
Near Miss IED	1
Perceived Bullying/Harassment	2
Motor Vehicle Accident	17
RPG Attack	1
Total	29

Table 5. Nature of the Traumatic Incidents Leading to Cases of ASD that presented to the FMHT during Op TELIC

The low rate of exposure to a discrete traumatic event is surprising, so clarification was sought from a representative sample of deployed FMHT staff who frequently stated that ASD was sometimes used as a category of convenience to denote occasions when a person was exhibiting distress related to an event that may not have been potentially traumatic, such as prolonged or difficult work circumstances, prolonged sleep deprivation or a domestic problem back home. In this sense, the category is being mis-applied and the true number of ASDs relating to a potentially traumatic event are relatively few. Data supplied by Permanent Joint Headquarters indicates that numerous potentially traumatic events occur each day during Op TELIC but despite this, relatively few personnel come forward for treatment during deployment or in the time following recovery from operations. This may be due to the perceived stigma of mental health referral as has been found elsewhere (Hoge et al 2004), that they are unable to access care on operations or that the deployed troops are resilient and are finding their own way of resolving any potential mental health issues. There is evidence that people who are exposed to very

intense traumatic experiences, such as earthquakes, will experience traumatic stress symptoms, but that spontaneous recovery can be expected in the majority of cases. (Karamustafalioglu et al 2006).

The number of Reservists who sought referral to the FMHTs during deployment is disproportionately large. The status of the referred personnel is shown in Table 6.

Status	No.	%
Regular Forces	788	63.2
Civilian	24	1.9
Reserve Forces	259	20.8
Unknown	176	14.1
Total	1247*	

Table 6 Status of Personnel Referred to FMHTs on Op TELIC 1-9

*Includes 1036 Diagnosed Cases and 211 With Missing Diagnosis but of Known Status

The data from Op TELIC 1-9 shows that the Reserves constitute 21% of the referrals to deployed FMHTs. The clinical data shows that the majority of these were from Combat Support Arms and Services and Reserve personnel working in medical units were heavily represented, constituting 53 (20.5%) of the 259 Reservist referrals. This could have several explanations; firstly, medical personnel have easy access to the deployed FMHT as they are often co-located with them or have direct access to the evacuation chain. Secondly, they can often bypass the normal referral route by requesting an interview with the FMHT without reporting sick to their UMO. Thirdly, they may not be restrained by fears of potential stigmatisation as they do not have to break through so many barriers as, for instance, the infantry soldier might. Lastly, it is possible that functioning in the health care role on operations is inherently difficult and therefore predisposes towards adverse psychological consequences. In a study of Israeli medics, Lubin et al (2007), demonstrated that seeing oneself as a combat soldier first and foremost, and for that reason being integrated closely with the parent combat unit, protected from adverse psychological consequences when exposed to potentially traumatic events. This is born out by the FMHT data. Most of the medical staff who became mental health casualties came from medical units that were not deployed in direct support of a combat unit and would therefore not have benefited from the protective factors available to the Israeli medics.

Conclusion

From the available evidence, the current operations undertaken by UK Armed Forces do not appear to have dramatically affected the mental health of the majority of deployed personnel. In addition and contrary to media speculation, there does not appear to be an epidemic of psychological disorders once troops recover from operations; in fact, only few present with mental health problems that can be directly attributed to the operation upon which they were deployed. The impact appears to be greater for Reservists who experience poorer mental health outcomes than their Regular counterparts both during and following operational deployment. This finding is replicated in other studies. However we cannot rule out that stigma which is associated with mental health problems may be preventing, as yet uncertain, numbers of unwell personnel from coming forward. It is for this reason that considerable weight might be given to formal population based studies of random samples of personnel in which it is easier to assess the true, as opposed to administrative prevalence of mental health problems, (Hotopf et al 2006). Instead this paper is entirely concerned with the visible pattern of psychological morbidity

which still gives an indication of the scale of the problem, timelines and trends which will help to inform service planning.

Furthermore data gleaned from FMHTs and Mental health services dedicated to mobilising and de-mobilising TA and Reservists does not support the notion that mental ill-health is an inevitable consequence of mobilised service. The current data regarding de-mobilised Reserves and Op TELIC veterans should be treated with caution as they may be influenced by personnel having no knowledge of, services put in place to help them. It may also be that NHS Services are absorbing the bulk of the referrals, though this cannot be confirmed at present. It is now recognised that dedicated services for Forces Veterans, other than those provided by charities such as Combat Stress are lacking and action has been taken to roll out government pilot schemes for Regular Forces veterans during the coming year.

What this paper suggests is that the majority of mental health problems for which deployed personnel report sick mirror those that are reported in a peacetime setting. Furthermore the medical services of the Armed Forces have not had to deal with a so called epidemic of mental ill health as a result of recent. However, it is highly likely that issues such as stigma, mean that these figures are a minimum estimate of the true rates and that barriers exist that impede some personnel in need from seeking treatment. We believe that although the problem of stigma is widespread outside the Armed Forces and is not amenable to a simple solution or panacea, it is still an area for more research and intervention.

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