Mental Health and the UK Armed Forces

Professor Neil Greenberg
Academic Centre for Defence Mental Health
King’s College London
Who am I

- Defence Professor of Mental Health
- Royal Navy Surgeon Captain
- Consultant Psychiatrist
- Varied military career – ships, submarines, Royal Marines
Aims of the talk

• To examine the psychological health of the UK Armed Forces

• To outline how the UK Armed Forces aim to support the psychological health of their personnel

• Challenge some of the myths surrounding mental health problems in service personnel
Troubled war veterans leave UK 'sitting on a suicide timebomb'
Published Date: 16 July 2009

Tsunami of post-traumatic stress haunts our heroes

Revealed: the hidden army in UK prisons
More veterans in justice system than soldiers serving in Afghanistan - study

Alan Travis, home affairs editor
guardian.co.uk, Thursday 24 September 2009 20:52 BST

Holidays for Heroes in Jersey says PTSD cases rising

Former soldier wins MoD payout over post-traumatic stress disorder
Bomb disposal expert claimed failure to properly diagnose PTSD left him more vulnerable to future stressful events

Liam Fox: We must defuse timebomb of veterans' mental health

British troops back from Afghanistan are 10 times more likely to suffer mental illness, say MOD
Military Life is Different
BROKE? GET SOME BAR WORK.

HAVE YOU GOT THE STRENGTH OF MIND? ROYAL MARINES COMMANDO
The Deployment Cycle

- **Post Deployment**
- **In the Home Base**
- **Pre-Deployment**
- **Deployment**
- **Veterans**
- **Recruits**
The UK Armed Forces

- **Who are they – as of 31 Mar 2012**
  - Full time trained strength - 170,910
  - Intake 14,490 in the last 12 months
  - Outflow 20,700 in the 12 months

- RN ~ 35,000; Army 101,000; RAF; ~ 40,000

- Varied backgrounds; ~10% female
Defence Mental Health Services (Non-deployed)

- The psychological welfare of troops is primarily a ‘Chain of Command’ responsibility
- Informal support (peers, welfare, padre)
- Primary Care (GPs)
- Departments of Community Mental Health (DCMH)
- Hospital Care (ISP)
Mental Health Support – DCMH 2010

• During 2010 the DCMHs received
  – 5,581 referrals (~2% of the AF population) of which
  – 3,942 new cases of mental disorder were identified
  – So, approximately 1/3 had no diagnosis

• Referral was significantly more likely for (rates per 1000)
  – Army (21.7) and RAF (21.8) personnel than RN(11.8)/RM(7.1)
  – Females (43.1) than males (17.2)
  – Other ranks (21.4) than Officers (10.5)
  – Had been deployed to Iraq/Afghan (20.4) than not (18.3)
DCMH Referrals - Diagnostic Categories 2010

- Substance Misuse (16): 0.3%
- Mood Disorders (66): 1.2%
- PTSD (249): 4.5%
- Other Mental Disorders (289): 5.2%
- Alcohol Related Disorders (293): 5.2%
- Neurotic Disorders (626): 11.2%
- Depressive Episode (835): 15.0%
- Adjustment Disorders (1568): 28.1%
- No Mental Disorder (1639): 29.4%

Source – DASA.mod.uk 2011
Mental Health Hospitalisations

- Compared to the Service population, those admitted to hospital are:
  - more likely be junior
  - to be under 25 years of age
  - have a combat role

- 74% were prematurely discharged
- 73% in the first year following hospitalisation
Mental Health Support – Hospitals 2009

- Substance Misuse: 0.3%
- PTSD: 3.2%
- Neurotic Disorders: 3.2%
- Mood Disorders: 5.5%
- No Mental Disorder: 7.1%
- Other Mental Disorders: 14.6%
- Alcohol Related Disorders: 16.8%
- Adjustment Disorders: 19.4%
- Depressive Episode: 29.8%

*Other than Depressive Episode ** Other than Adjustment Disorders and PTSD

313 Admissions *4 Cases with no recorded diagnosis
The King’s Cohort Study

- Large study 20,000 Personnel (~60% response rate)
- Case definition: OP TELIC 1 vs. everyone else
- Tri Service (proportional to TELIC orbat)
- Serving and non serving excluding SF
- 2:1 over sample of reservists
- 5 Year follow up, inc replenishment & HERRICK
Overall Probable Mental Disorder Rates

Symptoms

Alcohol

Post traumatic stress

General mental health

percentage cases

0 5 10 15 20 25 30

REGULARS ONLY

NON TELIC

TELIC
So, What Has Happened Since Then?

*5 Year Follow Up*

(9990 subjects Including a Herrick Sample)
Overall prevalence of outcomes (at 5 years)

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Overall, % (95% confidence interval)</th>
</tr>
</thead>
<tbody>
<tr>
<td>*Probable PTSD</td>
<td>4.0% (3.5%-4.5%)</td>
</tr>
<tr>
<td>**Common Mental Disorder</td>
<td>19.7% (18.7%-20.6%)</td>
</tr>
<tr>
<td>**Alcohol Misuse</td>
<td>13.0% (12.2%-13.8%)</td>
</tr>
</tbody>
</table>
## Role of combat

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Combat (25.0%)</th>
<th>Combat support (12.0%)</th>
<th>Combat service support (63.1%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Probable PTSD</td>
<td>6.9%</td>
<td>2.1%</td>
<td>3.6%</td>
</tr>
<tr>
<td>Common mental disorders</td>
<td>20.6%</td>
<td>18.3%</td>
<td>19.7%</td>
</tr>
<tr>
<td>Alcohol misuse</td>
<td>22.5%</td>
<td>10.8%</td>
<td>14.2%</td>
</tr>
</tbody>
</table>
Alcohol (mis)use in the military
UK Armed Forces vs. the general population: **Males (67% vs. 38%)**

Fear et al, Addictions 2007
UK Armed Forces vs. the general population: **Females** (49% vs. 16%)
The effects of time – Changes between study phases

- Alcohol misuse
- Alcohol related harm
- Alcohol dependence
- Hazardous consumption score
- Audit score 16+

% of population

- Phase 1 2003-2005
- Phase 2 2007-2009
Number of deployments – currently serving Army regulars

![Bar chart showing proportions of symptoms of PTSD, common mental disorders, and alcohol misuse.](Image)
What Happens to Probable PTSD Post-deployment over time?

![Bar chart showing the proportion of symptoms of PTSD, common mental disorders, and alcohol misuse over time since return from deployment.](chart_url)
In Summary….

- The overall mental health of UKAF remained stable over 5 years
- Alcohol misuse continues to be a bigger problem than probable PTSD
- Deployment still associated with probable PTSD in combat troops (and reserves) and alcohol misuse in regulars
- Still no association with number of deployments
- Weak relationship between time since return from deployment and probable PTSD
Operational Mental Health Casualties

• All major UK AF deployments include mental health professional in the team

• Uniformed Psychiatrists and Community MH nurses make up the Field Mental Health Teams (FMHT)
FMHT Diagnostics

Diagnosis

- Adjustment Disorders
- Acute Stress Reactions
- No Psychiatric Disorder
- Not Recorded
- Depressive Disorder
- Anxiety Disorders
- PTSD
- Other
- PD
- Alcohol Related Disorder
- Psychotic Illness
- OCD
- Somatoform Disorder

- Telic (n=1036)
- Herrick (n=614)
The Operational Mental Health Needs Evaluation (OMHNE)
Deployed Mental Health Status

<table>
<thead>
<tr>
<th>Prob PTSD</th>
<th>Common MH disorders</th>
</tr>
</thead>
<tbody>
<tr>
<td>Iraq (09)</td>
<td>Afghanistan (10)</td>
</tr>
<tr>
<td>Afghanistan (11)</td>
<td>Afghanistan (11)</td>
</tr>
</tbody>
</table>

- Prob PTSD: 3.5, 2.7, 1.9
- Common MH disorders:
  - Iraq (09): 20
  - Afghanistan (10): 17
  - Afghanistan (11): 16
Leadership and Probable PTSD (Afghan 2010)

Prevalence of probable PTSD*

- Overall
- Good Leadership
- Poor Leadership

Prevalence of probable PTSD*
Home Front Stressors & Mental Health

No Home Front Stressors
- CMD: 13%
- PTSD: 1.5%

One or More Home Front Stressors
- CMD: 27.1%
- PTSD: 3.1%

PTSD $\chi^2 = 3.36$, df = 1, $p = 0.067$
CMD $\chi^2 = 33.52$, df = 1, $p < 0.001$
Where do deployed personnel get support/help

% may not add up to 100% as some reported more than one source of help
Trauma Risk Management (TRiM)
Trauma Risk Management

• TRiM is a form of psychological first aid

• Reinforces good personnel management

• Ensures that the unit can monitor those exposed to traumatic incidents

• Problem solving, mentoring & referral

• Not psychological debriefing/CISD
Trauma Risk Management

- It formed 14 (+) years ago
- Began in Royal Marines units, now Tri-Service
- They range in rank from Marine to Brigadier
- Also used by BBC, FCO, St John and London Ambulance Services and some UK Police Forces
What Peer Practitioners are not!

- Counsellors
- Therapists
- Pseudo-psychologists
- Group Huggers
- Scented Candle users
Peer-group risk assessment: management strategy for his organizations

N. Jones, P. Roberts and N. Greenberg

Background
Organisations have moral and legal responsibilities to protect their workforce following an event. Additionally, it is to the effect of the psychological well-being of their members.

The acceptability of ’Trauma Risk Management’ within the UK Armed Forces

N. Greenberg, V. Langston, A. C. Iversen and S. Wessely

1 Academic Centre for Defence Mental Health, Weston Education Centre, Cuckoo Road, London SE5 9RJ, UK; 2 King’s Centre for Military Health Research, Weston Education Centre, Cuckoo Road, London SE5 9RJ, UK.

Correspondence: N. Greenberg, Academic Centre for Defence Mental Health, Weston Education Centre, Cuckoo Road, London SE5 9RJ, UK. Tel: +44 (0)20 7848 5381; fax: +44 (0)207 848 5387; e-mail: sossofna@aoa.com

Aims
To investigate whether Trauma Risk Management (TRIM), an example of such a programme, is acceptable, and would be used in a real-life setting (C
den, 2011).

Discussion
A structured review of 200 random samples of US military personnel, and a telephone survey of 996 soldiers, showed that TRIM was acceptable to 83% of the participants.

Does trauma risk management reduce psychological distress in deployed troops?

W. Frappell-Cooke, M. Gulin, K. Green, J. Hacker Hughes and N. Greenberg

1 Defence Clinical Psychology Service, HQ Surgeon General, DAS Whittington, Luton, Bedfordshire WS14 9PY, UK; 2 Department of Psychology, City University, Northampton Square, London EC1V 0HB, UK; 3 Navy Command Headquarters, MP 3-1, Leuch Building, White Island, Portsmouth PO2 8YH, UK; 4 Academic Centre for Defence Mental Health, London, UK.

Correspondence: N. Greenberg, Academic Centre for Defence Mental Health, Academic Department of Psychological Medicine (RMC), Weston Education Centre, Cuckoo Road, London SE5 9RJ, UK. Tel: +44 (0)207 848 5381; fax: +44 (0)207 848 5387; e-mail: wfcpsych@trimat.net

Background
Military personnel exposed to potentially traumatic events whilst deployed on operational duties may develop psychological problems. The Royal Marines have made extensive use of Trauma Risk Management (TRIM), a peer-support system that operates through practitioners embedded within operational units. TRIM aims to promote recognition of psychological problems and to facilitate social support.

Aims
To investigate whether Trauma Risk Management (TRIM), an example of such a programme, is accepted by deployed personnel.

Discussion
A structured survey of 100 random samples of Royal Marines personnel deployed on an operational tour in the Middle East showed that 77% of respondents believed TRIM to be effective in reducing psychological distress.
In summary the TRiM research says…..

- TRiM may help spot people who are in need
- TRiM may help mobile social support
- TRiM may help with occupational functioning
- TRiM use appears acceptable
- TRiM may help with stigma/barriers to care
Troops who return home from operations go through a process called Post Operational Stress Management which includes mental health briefings and decompression – the POSM process last for around 12 weeks.
Third Location Decompression

• Troops who ‘fight together should unwind together’

• First stage of POSM

• Takes place in Cyprus, 36 hours long, social, informal and includes mental health briefings, homecoming briefings and risky driving briefings
Post Deployment - Decompression

- Prior to attending DcN ~80% did not want to go or were ambivalent
- Having been through DcN...

Was Decompression Useful

<table>
<thead>
<tr>
<th>Percent</th>
<th>Yes/A little</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>100%</td>
<td>91%</td>
<td>9%</td>
</tr>
<tr>
<td>80%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>60%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>40%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>20%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Prior to attending DcN ~80% did not want to go or were ambivalent.
Homecoming Adjustment Scale

Personnel were more concerned about relationships issues than ‘traumatic situations’

- Returning to peacetime military duties: 16.3%
- Relationships (With family, friend, partner): 26.9%
- Settling down to normal life after the tour: 22.3%
- Thoughts of unpleasant events that happened during the tour: 12.4%

*Continuous and Frequent Concerns
Decompression ‘research’

- Many personnel do not want to go to DcN, having been they like it and think it will be helpful

- Less helpful for
  - those on 2nd (or more) tours in last five years
  - Seniors ranks

- More helpful for
  - Those who have high combat exposure
  - Those with more adjustment concerns

- However – current evidence is not based upon ‘robust clinical trials’ (note: US interest in DcN might lead to them running a trial)
UK Battlemind  RCT Trial

Deployment BATTLEMIND

Buddy Buddy System
Accountability
Targeted Aggression
Tactical Awareness
Limited Alcohol
Emotional Control
Mission Operational Security
Individual Responsibility
Non-Defensive (Combat) Driving
Discipline and Ordering

Home Front Problems

Withdrawal
Controlling at home
General Aggression
Being on Edge
Lagered up
Detachment & Numbness
Secretiveness
Guilt
Unnecessary Risk-taking
Conflict with Friends & Family

www.battlemind.co.uk
Study design

Eligible companies

Randomised

Consent
Baseline questionnaires

Battlemind training

4 - 6 month follow-up questionnaires

Consent
Baseline questionnaires

Stress and Homecoming brief

4 - 6 month follow-up questionnaires
Results: Probable PTSD – ‘cases’ (n=~1600)
Results: Alcohol Binge drinking
(12+ units) at least weekly at follow-up

Fully adjusted OR 0.73 (0.58 – 0.92) p= 0.006
What Happens Probable PTSD Rates Over Time – in relation to deployment?
After Service

Meeting the Healthcare Needs of Veterans
A guide for general practitioners

Veterans

Reserves Mental Health Programme

Veterans care
Reserves Mental Health Programme (RMHP) Treatment Outcomes

- Accepts demobilised reservists deployed since 2003
- Referrals from GP and Self-referrals
- Based in RTMC Chilwell
- Nurse led assessments
- Supported by Consultant Psychiatrists & other MH Staff in DCMHs (co-ordinated treatment effort)
## RMHP Illness Categories

<table>
<thead>
<tr>
<th>Diagnosis</th>
<th>n (%)</th>
<th>No Tx</th>
<th>Tx</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Depressive Episode</strong></td>
<td>33 (37)</td>
<td>4 (19)</td>
<td>29 (43)</td>
</tr>
<tr>
<td><strong>Adjustment Disorder</strong></td>
<td>25 (28)</td>
<td>7 (33)</td>
<td>18 (27)</td>
</tr>
<tr>
<td><strong>Probable PTSD</strong></td>
<td>12 (14)</td>
<td>2 (10)</td>
<td>10 (15)</td>
</tr>
<tr>
<td><strong>No Psychiatric Problem Diagnosed</strong></td>
<td>10 (8)</td>
<td>6 (28)</td>
<td>1 (2)</td>
</tr>
<tr>
<td><strong>Anxiety Disorder</strong></td>
<td>3 (3)</td>
<td>1 (5)</td>
<td>2 (3)</td>
</tr>
<tr>
<td><strong>Mixed Anxiety and Depression</strong></td>
<td>2 (2)</td>
<td>1 (5)</td>
<td>1 (2)</td>
</tr>
<tr>
<td><strong>Alcohol Related Disorder</strong></td>
<td>1 (1)</td>
<td>0</td>
<td>1 (2)</td>
</tr>
<tr>
<td><strong>Personality Change after Catastrophic Incident</strong></td>
<td>1 (1)</td>
<td>0</td>
<td>1 (2)</td>
</tr>
<tr>
<td><strong>Psychotic Episode</strong></td>
<td>1 (1)</td>
<td>0</td>
<td>1 (2)</td>
</tr>
<tr>
<td><strong>Post Concussion Syndrome</strong></td>
<td>1 (1)</td>
<td>0</td>
<td>1 (2)</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>89</td>
<td>21</td>
<td>67</td>
</tr>
</tbody>
</table>
RMHP Outcomes

<table>
<thead>
<tr>
<th>Occupational Outcome</th>
<th>n (%)</th>
<th>% of Treatment Completers (n=47)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fully Fit</td>
<td>36 (66)</td>
<td>77%</td>
</tr>
<tr>
<td>Fit With Some Limitations</td>
<td>4 (7)</td>
<td>9%</td>
</tr>
<tr>
<td>Medical Discharge</td>
<td>7 (16)</td>
<td>15%</td>
</tr>
<tr>
<td>Temporary Medical Category</td>
<td>8 (15)</td>
<td></td>
</tr>
</tbody>
</table>

- Most get better
- Not used very much (in spite of advertising)
Adult Psychiatric Morbidity Survey (APMS)

- 257 post national service Veterans aged 16–64 years & 504 age and sex matched non-Veterans

- Male Veterans – more childhood adversity & major trauma in adulthood

- Females Veterans – more suicidal thoughts

- Early service leavers (<4 years service) – more heavy drinking - suicidal thoughts - self-harm compared to longer serving Veterans

- But – No association between any measure of mental health except violent behaviour and veteran status in males - therefore - Veterans are no more ill

Woodhead et al, 2010
Most Veterans with PTSD do not get treatment…but nor do non Veterans
Official: 2,500 ex-servicemen are in prison

Nearly 2,500 ex-servicemen are in prison in England and Wales, official figures show for the first time.

By Christopher Hope

Revealed: the hidden army in UK prisons
More veterans in justice system than soldiers serving in Afghanistan - study

Ali Tarei, home affairs editor
guardian.co.uk, Thursday 24 September 2009

Twenty thousand servicemen in prison, on probation or parole

More than 20,000 former servicemen are in prison or on probation or parole, double the total British personnel in Afghanistan, according to a new survey.

By Chris Irvine
Published: 7:00AM BST 25 Sep 2009

From The Times
September 25, 2009

Number of military veterans in jail ‘has more than doubled in six years’

Richard Ford, Home Correspondent

The proportion of veterans in the prison population has more than doubled in six years, according to a report published today highlighting the hidden cost of recent military action.

About 12,000 veterans are on probation or parole, representing 6 per cent of the total, while 9,600 are in prison, representing 8.5 per cent of the jail population, according to the report by the National Association of Probation Officers (Napo).
The truth...

- DASA (2010) - 3.5%
- 30% less than expected
- But … twice as likely to be convicted for a sexual offence (overall numbers still low)
- Detail on www.dasa.mod.uk
Suicide in the still serving AF population, males, 1984-2011

<table>
<thead>
<tr>
<th>Age group (years)</th>
<th>Service</th>
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<tbody>
<tr>
<td></td>
<td>Navy</td>
</tr>
<tr>
<td></td>
<td>N</td>
</tr>
<tr>
<td>&lt;20</td>
<td>7</td>
</tr>
<tr>
<td>20-24</td>
<td>30</td>
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<tr>
<td>25-29</td>
<td>23</td>
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<td>30-34</td>
<td>22</td>
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<tr>
<td>35-39</td>
<td>24</td>
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<tr>
<td>40-44</td>
<td>12</td>
</tr>
<tr>
<td>45-49</td>
<td>5</td>
</tr>
<tr>
<td>50+</td>
<td>-</td>
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Suicide after Leaving the UK Armed Forces — A Cohort Study

Navneet Kapur¹, David While¹, Nick Blatchley², Isabelle Bray², Kate Harrison²

![Graph showing risk of suicide after leaving UK Armed Forces by age group. The graph indicates a higher risk in younger age groups compared to the general population. The source is the Centre for Suicide Prevention.](image-url)
And to the future…

inc the 2010 Murrison Report (Fighting Fit)

- Enhanced Mental Health Assessments during medicals
- RCT of post deployment screening
- Access to DMHS for 6 months post discharge
- Social networks MH pilot
- Veteran’s Information Service
- More MH trust veteran workers
Summary

• Prevalence of military PTSD is relatively low and stable over time

• Prevalence of Common Mental Disorders is about the same as in the general population

• However, some groups do have poorer MH (combat, reservists, early service leavers) and alcohol misuse is an issue

• There’s a lot of work that has gone on and a lot more yet to some
And of course

You shouldn’t believe everything you read!
The King's Centre for Military Health Research (KCMHR) is an academic centre located in the University of London. It was established in 1996.

KCMHR is dedicated to the study of mental health issues in the military, particularly in relation to the Armed Forces. The Centre conducts research on a variety of topics including combat stress reactions, post-traumatic stress disorder, and the impact of deployment on mental health.

Our flagship project is the Armed Forces Health Studies (AFHS). This is a large-scale longitudinal study that follows military personnel throughout their careers. The AFHS provides invaluable insights into the factors that contribute to mental health problems in the military.

KCMHR is also home to the Academic Centre for Defence Mental Health (ACDMH), which is a partnership between King's College London and the Ministry of Defence. The ACDMH is committed to improving the mental health of service personnel and their families.

Our new website is now online. For a hard copy of our 'A fifteen year report' please click here.

KCMHR is committed to advancing our understanding of military mental health and to providing evidence-based solutions to the challenges faced by military personnel.
Any Questions? - Fire Away!

Neil: sososanta@aol.com