And Then They Came Home: Improving Behavioral Health Outcomes for Returning Veterans

Grand Rounds presented to St. Charles Medical Center, Bend, OR
September, 2012

Mental Health in the Deployed Environment

The (possibly dreaded) PDHRA, a/k/a DD2900

Deployed US Servicemembers: Afghanistan

Source: Brookings Institution Afghanistan Index
http://www.brookings.edu/afghanistanindex

NOTE: As of August 2012 there are roughly 84,000 U.S. troops in Afghanistan. These figures include troops under ISAF and Operation Enduring Freedom. For a full order of battle, please see: http://www.understandingwar.org/reference/afghanistan-order-battle. The start of each year is indicated by an arrow.

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MENTAL HEALTH IN THE DEPLOYED ENVIRONMENT

- **ASSETS ASSOCIATED WITH MEDICAL DIVISIONS**
  - Psychologists, Psychiatrists in Medical Units (Fleet Hospitals, Surgical Units)
  - Combat Stress Teams
  - Surgical Hospitals
- **ASSETS ASSOCIATED WITH BRIGADE UNITS**
- **ASSETS IMBEDDED IN LINE UNITS**
  - The “OSCAR” Program
- **ASSETS AFOAT**
  - OSCAR Assets
  - Ship’s Company

History of deployment mental health

- Vietnam
  - Again, use of psychotropics for immediate treatment of combat stress
    - Chlorpromamine, chlordiazepoxide in the Level I MAAL
  - Increased recognition of syndrome of PTSD
- Special forces – psychologists attached to Special Forces units since early ’80s
  - Role primarily screening, but increasingly, direct operational support
- Desert storm – likely first strategic placement of mental health providers in deployed units
  - Mental health providers in first wave ashore
  - Gulf war syndrome and psychological overlay

History of deployed mental health

- Psychologists afloat –
  - Since 1997, psychologists aboard all carriers
  - Now, increasingly aboard ESGs/MEUs
- OIF/OEF
  - More attention paid to behavioral health than in any previous conflict.
  - Mental health a part of the battle plan
  - Behavioral healthcare providers in first push towards Baghdad in 2003
  - Emergence of the OSCAR model

Treatment models

- PIES (Artiss, 1963) still undergirds treatment philosophy
- The stress debriefing controversy continues
  - Psychological “first aid” emerging as an alternative, but not yet clearly defined
  - Role of pharmacotherapy requiring further definition
  - Treatment in situ essential for all but severely affected
**OSCAR’S Mission**

The Mission of the OSCAR program is to conserve the fighting strength of the Corps through a proactive community mental health approach, preventing Marines from becoming “patients” through the appropriate application of the PIES principles.

- Proximity
- Immediacy
- Expectancy
- Simplicity

Slide courtesy of CDR Wayne Boucher, MSC, USN

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**OSCAR Execution/Functions**

**Community Psychologists**: Cultural Competence is essential, Primary Prevention

Personnel Psychologists: Determine fitness to deploy/retain or special duty Consultation Psychologists: provides OOD with guidance regarding the mgmt of psych casualties, writes policy, maintains the Psych-Bismark (MHO, DHC, FAP & SARAP)

Sport/Performance Psychologists: Focuses psychotherapy interventions on those who can still contribute on the battlefield, those who will deploy.

Clinical Psychologists: Secondary Prevention, early ID & aggressively treat.

Forensic Psychologists: Completes, sanity (708) boards & can be tapped as expert witness.

Biological Psychologists – Work with the Regt and BN Surgeons but should not try to treat complex med cases in theater.

Neuropsychology – Must be familiar with ANAM & competent to do an adequate screening but not try and treat complex or Moderate TBI in theater.

Slide courtesy of CDR Wayne Boucher, MSC, USN

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**MEF (FWD) MH Assets**

LCE: Combat Stress Platoon (SSC, part of Med BN)

- CST 1, Camp Leatherneck (Until 9/12)
- 2: 2300 Psychologists (LCDR Burke & LT Miller)
- 2: 2100 Psychiatrists (LCDR Patterson & LT Foley)
- 4: 3485 MH Techs (HMM Maamo, HMM UH, RN Curtis)

- CST 1, Concussion Mgt Center, Camp Leatherneck
- 1: 3485 Psychologists (LCDR Conner)
- 1: 3485 MH Tech (HN Rezac)

- CST 3, Camp Dwyer (Until 9/12)
- 1: 2300 Psychologist (LT Pierce)
- 1: 3485 MH Tech (HN Blue)

ACE: Utilizes closest CST, as Wing Personnel located near LCE MH assets

USA/USAR: Also utilizes closest CST, if no CSC assets are available

Slide courtesy of CDR Wayne Boucher, MSC, USN

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**OSCAR as an Integrated System**

Slide courtesy of CDR Wayne Boucher, MSC, USN

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**Readjustment stressors, not PTSD severity, appear to predict treatment**

Source: Interian, Kline, Callahan & Lozonscy, 2012

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<td>22</td>
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<tr>
<td>None</td>
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</tbody>
</table>

Some denominators are below 20 because of missing values. Some may have received more than one psychotropic.


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**Joint Mental Health Advisory Team 7 (J-MHAT 7) Operation Enduring Freedom 2010 Afghanistan**

US Army Medical Command, Office of the Surgeon General, 22 February 2011

- MHAT measures deployed personnel perceptions in theatre (N=1246). Key findings of latest report:
  - Higher incidence of exposure to concussive events
  - Medication use for mental health or combat stress was 3.7% - slightly lower than comparable civilian populations (but high for demographic?)
  - Significant increase in multiple deployments, multiple deployers with significantly increased risk for MH problems.
  - Perceptions of stigma largely unchanged, but greater accessibility to MH services in theatre

Source: MHAT7 Report
Camp Fallujah – Garden spot of Anbar Province

FRSS Fallujah

• Level II Surgical Company
• Immediate stabilization and medical evacuation
• Surgical services
• Combat stress
• One psychologist
• One psychiatrist
• One mental health tech
  – (most useful in outreach to MA, others)

FOB in Fallujah

• One company of Marines
• City of Fallujah
• Approx 100 sq yards
• Great worksite
  – COSC debriefings
  – Taking services to the troops
  – In concert with chaps, GMOs
FOB in Fallujah

- Essential elements of practice
- Know the XO and senior enlisted
- Know the “doc”
- No psychotherapy services
- (But I answered a lot of questions)

Hurricane Point - Ramadi

- As in all operational environments
  - Minimal use of psychotropics
  - Hypnotics (Ambien)
  - Modafinil
  - SSRIs
  - Rare BDZs
  - Rare antipsychotics

Suicide in Active Duty and Veteran’s Populations

Source: Final report of the DoD Task Force on Preventing Military Suicides, 2010

Military suicides, 2001-2009

Source: Final report of the DoD Task Force on Preventing Military Suicides, 2010

Active duty and veteran suicides, 2012

- As of July, 2012, 187 active duty suicides (almost one per day).
- 18 suicides/day among veterans in 2011.
- Rates of veteran suicide in 18-24 year old group 4x higher than comparable civilian populations.


Rates of veteran’s suicide remains alarmingly high

- FY 2009, there were 22 suicides among OEF/OIF veterans in VA care. The suicide rate in this group was 4.7 per 100,000.
- FY 2008: 32 suicides and a rate of 7.4 per 100,000.
- For individuals with mental health or substance use disorder diagnoses, the suicide rate in FY2009 was 56.4 per 100,000, compared with 21.2/100,000 among patients without these diagnoses. Source: US Medicine (Jan, 2012). Suicide Rate Drops but Veterans Still Struggle to Get Mental Health Care.
- Compare to 2001: suicide rate among patients with mental health or substance use disorder diagnoses was 78.0/100,000 compared to 24.7/100,000 for those without suicide diagnoses.
Decreased dwell time increases risk of development of mental health disorder

- Marines with 2 deployments had higher rates of PTSD than did those with 1 deployment (2.1% versus 1.2%; P < .001).
- Those with more time between deployments had reduced odds of PTSD (OR = 0.47) or other MH disorder (OR=0.62).


Executive Order Aug 31 2012: IMPROVING ACCESS TO MENTAL HEALTH SERVICES FOR VETERANS, SERVICE MEMBERS, AND MILITARY FAMILIES

“Since September 11, 2001, more than two million service members have deployed to Iraq or Afghanistan. Long deployments and intense combat conditions require optimal support for the emotional and mental health needs of our service members and their families. The need for mental health services will only increase in the coming years as the Nation deals with the effects of more than a decade of conflict.”

- EO deals with
  - Suicide Prevention
  - Greater articulation between VA and civilian providers
  - Rural access to veterans, esp. for mental health
  - Better research
  - Interagency Task Force: VHA and DoD


Sexual Assault in the Military

- US military allows two types of reporting
  - “restricted” – victims can confidentially access medical care and advocacy services. Restricted reports can be made only to healthcare personnel or officially designated personnel.
  - “unrestricted” - report is referred for investigation, command is notified.
- In 2010, estimated that only 14% of unwanted sexual contact reported to authorities.

  Source: DoD Sexual Assault Prevention and Response Office  www.sapr.mil

DoD’s sexual assault response: Restricted and unrestricted reporting

Source: Department of Defense Sexual Assault and Response Office Annual Report to Congress for FY 2010-2011
Gender of sexual assault victims in the US military

Source: Department of Defense Sexual Assault and Response Office Annual Report to Congress for FY 2010-2011

Treating Vets in the VA: Will we ever win?

Source: Department of Defense Sexual Assault and Response Office Annual Report to Congress for FY 2010-2011
Treatment of Vets in the VA

- Incidence of PTSD, other disorders, rising.
- Access tends to be good: 58% of eligible vets got some form of service via VHA (Shiner, et al., 2012).
- Depression, unemployment, substance abuse tend to be high in these vets. One study found 45% unemployment, no relation between prior dx of PTSD or TBI and unemployment (Cohen, Surek, Amick & Yan, 2012).
- Pharmacotherapy is improving – majority of vets get recommended treatment (SSRI or SNRI; Bernardy, Lund, Alexander & Friedman 2012).

Medication Use in Vets with PTSD: A bit of good news


Changing definitions of PTSD

- PTSD formally introduced in 1980: based on Vietnam era conceptualizations of “delayed stress syndrome” or previously called “gross stress reaction”
- Origin in psychodynamic theories of traumatic neurosis:
  - Exposure to trauma activated unresolved subconscious conflict
- Originally framed around experiences in war, but soon PTSD concept was used to examine trauma from other sources (e.g., vehicular accidents, sexual assault)

Current and historical controversies regarding PTSD

- Few diagnoses as controversial, or as changeable, as PTSD
- Diagnostic conceptualizations differ: ICD-9 does not contain cluster of emotional numbing, whereas DSM does.
- Few historical antecedents for the disorder of PTSD
Signal controversies in the diagnosis

- Malleability of terms and consistency of diagnosis across various schemata (i.e., DSM versus ICD)
- Delayed onset specifier
- Occurrence and severity of experienced stressor
- Differences in response (individual and group) depending on nature of stressor: Is sexual assault equivalent to combat exposure?
- Lack of specificity of symptoms (characterize other diagnoses, e.g., depression)
- Lack of sensitivity of symptoms (many people without disorders experience one or more symptoms)
- Is PTSD distinct from Acute Stress Disorder (added to DSM-IV)

PTSD as a societal symptom of our discomfort with war (especially unpopular ones)

- Simon Wessely (2005):
  - War changes you, for good or ill
  - Few if any ever forget
  - Many remained troubled by dreams and recollections for the rest of their lives
  - These people do not consider they have a psychiatric disorder
  - Symptoms and memories are not the same as disability/disorder

Core precepts of treatment for PTSD

- TARGET/SYMPOTM
  - Validation of traumatic response and establishment of hope/normality
  - Reduction of psychological arousal and anxiety
  - Identification/reduction of inappropriate/overgeneralized physiological response
  - Identification of misattributions and erroneous cognitive processes
  - Re-establishment of meaning and purpose

- TECHNIQUE
  - Psychoeducation, demonstration of compassion
  - Exposure based therapies, relaxation therapy, psychopharmacology
  - Exposure based therapies, relaxation therapy, psychopharmacology
  - Cognitive restructuring
  - Grief therapy, logotherapy, integrative/dynamic therapies

Pharmacotherapy for PTSD: Cochrane review 2006

- 35 short-term (14 weeks or less) RCTs (4637 participants). Symptom severity for 17 trials was significantly reduced in the medication groups, relative to placebo, number of participants (N = 2537). Similarly, summary statistics for responder status from 13 trials demonstrated overall superiority of a variety of medication agents to placebo. Medication and placebo response occurred in 55.1% (N = 646) and 38.5% (620) of patients, respectively. Of the medication classes, evidence of treatment efficacy was most convincing for the SSRIs.
- Medication was superior to placebo in reducing the severity of PTSD clusters, combat-related depression and disability.
- Medication was also less well tolerated than placebo. A narrative review of 3 maintenance trials suggested that long-term medication may be required in treating PTSD.

Authors’ conclusions
- Medication treatments can be effective in treating PTSD, acting to reduce its core symptoms, as well as associated depression and disability.
- The findings of this review support the status of SSRIs as first line agents in the pharmacotherapy of PTSD.


IOM meta-analysis of therapies for PTSD: Pharmacotherapies

For the all classes and specific drugs reviewed in each of the following classes, the committee concludes that the evidence is inadequate to determine efficacy in the treatment of PTSD:
- alpha-adrenergic blocker, nortriptyline, sertraline, citalopram or sertraline, Citalopram or sertraline, 5HT, other anti-depressants, not other drugs (codeine, clobrexone, or amitriptyline).

Evidence sufficient to conclude the efficacy of exposure therapies

Cognitive restructuring

Coping skills training

Group format therapies


A phenomenological approach to PTSD: Conceptualization

- Recognition that PTSD is
  - Poorly defined syndromically with wide variability in response
  - Likely less prevalent than other disorders occurring after trauma
  - Substance abuse
  - Depression
  - Domestic and occupational dysfunction
- Exposure to life altering experiences (combat, sexual assault, overwhelming events) challenges an individual's sense of self/autonomy and changes an individual's perspective on his/her future and interactions with others

A phenomenological approach to PTSD: Conceptualization

- Reduced emphasis on identification of psychopathology
- PTSD-like symptoms and other manifestations of stress viewed as a normative (not normal) response. Symptoms may be understood as maladaptive efforts at avoidance

A phenomenological approach to PTSD: Conceptualization

- Individuals resist incorporating traumatizing events into their cognitive schemae
  - Challenges to notion of self as autonomous agent
  - Challenges to notion of benignity of others
  - Challenges to psychic durability (especially among combatants)
  - Individuals avoid stimuli associated with traumatic event

Goals of phenomenological treatment of PTSD

- Assistance in assimilation:
  - Accurate sense of autonomy/vulnerability
- Assistance in acceptance:
  - Grief and loss
  - Life altering and permanent nature of event (the past has changed you and cannot itself be changed)
- Development of hope and integrity:
  - Survival of life altering event provides new skills and perspectives
  - Skills and perspectives may be imparted to others
  - Responsibility to carry on memory/legacy of others who did not survive

Pharmacotherapy for PTSD: Cochrane review 2006

- 35 short-term (14 weeks or less) RCTs (4597 participants). Symptom severity for 17 trials was significantly reduced in the medication groups, relative to placebo, number of participants (N) = 2507. Similarly, summary statistics for responder rates from 13 trials demonstrated overall medication superiority over placebo for the treatment of PTSD with a summary odds ratio of 1.85 (95% CI: 0.694 – 5.056; 628) of patients. Responsibly, 59.1% (N = 644) and 38.5% (628) of patients, respectively. Of the medication classes, evidence of treatment efficacy was most convincing for the SSRIs.
- Medication was superior to placebo in reducing the severity of PTSD clusters, comorbid depression and disability.
- Medication was also less well tolerated than placebo. A narrative review of 3 maintenance trials suggested that long-term medication may be required in treating PTSD.
- Authors’ conclusions
  - Medication treatments can be effective in treating PTSD, acting to reduce its core symptoms, as well as associated depression and disability.
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Pharmacotherapy for PTSD

- Rx has modest effect size in core symptoms v. placebo
- No class of meds better than another, except
  - Some negative evidence for BDZs (watch particularly in combination with psychotherapy). TCAs (possibly due to more noradrenergic activity?)
- Most studied class to date has been SSRIs
  - But only 5 RCTs of short duration
  - Possible that some specific serotonergic activity may assist in core symptoms
  - Makes some intuitive and theoretical sense
Should pharmacotherapy be routinely offered to patients with PTSD?

- Answer unclear at this point.
- Certainly for patients with unresponsive sx
- Effects modest, always incomplete
- Should be offered in conjunction with psychotherapy
  - Possible exception of BDZs
- Evidence suggests SRIs better
- No distinction between SRI
- Based on pt acceptance and tolerability

Resources

- www.afterdeployment.org – from US Army Technology and Telehealth
- www.sapr.gov – DoD Sexual Assault Prevention
- www.militaryresource.com – 12 civilian counseling sessions for veterans and families
- www.mfr@purdue.edu Military Family Research Institute at Purdue – bibliography, resources for researchers and vets.
- wwwdeploymentpsychology.org DoD resources for researchers, clinicians, and veterans. Free training for civilian providers working with veterans.
- Directive-Type Memorandum (DTM) 09-033 “Policy Guidance for Management of Concussive/Mild Traumatic Brain Injury in the Deployed Setting”
- Joint Mental Health Advisory Team 7 (J-MHAT 7) Operation Enduring Freedom 2010 Afghanistan 22 February 2011 Office of The Surgeon General United States Army Medical Command

Resources (2)

- www.ptsd.va.gov National Centers for PTSD Clinicians Trauma Update Online Subscribe at - resources for clinicians and researchers
- www.dcoe.health.mil Defense Centers of Excellence for Psychological Health and PTSD
- Deployment Health Clinical Centers: www.pdhealth.mil
- Post Deployment Health Reassessment www.pdhealth.mil/dcs/pdhra.asp

The long and the short of it.

THANK YOU FOR YOUR KIND ATTENTION