Wounds of War:

SUBSTANCE ABUSE, VETERANS & ACTIVE DUTY MILITARY

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MH Problems in Veterans from Iraqi and Afghanistan Wars

• Approximately 1.64 million U.S. troops deployed for Operations Enduring Freedom (OEF) and Iraqi Freedom (OIF) in Afghanistan and Iraq.

• In these soldiers prolonged exposure to combat-related stress may be disproportionately high compared with the physical injuries of combat.

• Specific concerns have been centered on post-traumatic stress disorder, depression, traumatic brain injury, suicide and SUD
PTSD and Mental Health Diagnoses Among OEF/OIF Veterans Seen at VA Facilities

Seal, KH et al., Arch Int Med 2007;167:476-482.
New-onset PTSD Symptoms or Diagnosis

7.6% - 8.7% deployed with combat
1.4% - 2.1% deploy without combat
2.3% - 3.0% did not deploy

• Army OR=3.59
• Air Force OR=3.38
• Marine Corps OR=2.78
• Navy or Coast Guard OR=2.48

43.5% of those w/ PTSD deployed with combat still had symptoms 3 years later

PTSD three-fold higher among deployed with combat exposures

Combat Exposure Is the Key Driver of Mental Health Problems Across Outcomes

Soldiers who report high levels of combat are significantly more likely to screen positive for acute stress (PTSD symptoms)

Adapted from presentation by: MAJ Jeff Thomas, Walter Reed Army Institute of Research.
PTSD or Depression with Serious Functional Impairment in Active Component and National Guard 3 and 12 Months Post Deployment

Comorbidity common: Around 50% of those with Depression or PTSD also had alcohol misuse or aggressive behaviors.

Post-Deployment Health Consequences

2,863 Iraq War returnees one-year post-deployment

Alcohol Use in Military Personnel

• Excessive alcohol drinking and related harms are common among military personnel.

• 43.2% of active duty military personnel reported at least one episode of binge drinking in the past month vs 26.1% for comparable age civilians (Stahre et al., Am J Preventive Medicine 2008).
Binge Drinking Rates by Service, 2002 – 2005
(unadjusted results)
DoD Survey of Health Related Behaviors

Binge Drinking = 5 or more drinks on a single occasion at least once in the past 30 days

*Significant difference between 2002 and 2005 at .05 level.
Civilian estimate for 1-4 years past High School reported from Monitoring the Future, past 2 weeks, 2004.
Alcohol-Attributable Risk Behavior or Consequences in the Last 12 Months Among Current Drinkers in the Active Duty Military, 2005

SUD for Past 30 Days for Total DOD


Smoking in Military Personnel

- Smoking rates are higher in the military than in the general population (32.2% vs 24.9% in 2005).
  
  *Bray & Hourani. Addiction 2007;102:1092-1101; NSDUH, SAMHSA.*

- $130 million are spent annually by the military on excess training alone due to smokers that are prematurely discharged.

- Service members who smoke have lower fitness levels and are at greater risk for physical injury.

*Smoking has been shown to be a coping mechanism for those exposed to stress.*

*Smith et al., Am J Preventive Medicine 2008.*
Deployment was associated with an Increase in Smoking (OEF and OIF)

- Deployment was associated with smoking initiation (1.2% versus 2.3% or a 70% increase).

- Deployment was associated with smoking recidivism (31% relapse and was 38% higher than in those that were not deployed). Deploying multiple times, and deployment >9 months increased risk of smoking reuptake.

Illicit Substance Abuse in OEF/OIF Veterans

*less than in veterans of other wars*

- Drug use is a dischargeable offense
- Stigma regarding drug abuse and mental health treatment within VA
- SUD or Treatment may negatively impact career (e.g., security clearance)
- Limited confidentiality regarding one’s medical records
DoD Illicit Drug Use for Selected Drugs Past 12 Months, 2005*

Note: 97% (total DoD) reported being tested for drug use in past 12 months.
*Not comparable with estimates in prior survey years due to questionnaire changes--specific drug examples were added in 2005. Any illicit drug use = Use of any drug asked about one or more times in the past 12 months for non-medical purposes (overall rate for any drug use = 10.9%, excluding steroids).

Deployment Length: Divorce/Separation Intentions

• Soldiers’ reports of whether they plan to get a divorce or separation increase with each month of the deployment.

U.S. Army Mental Health Advisory Team (MHAT) V Report (2007) for Iraq and Afghanistan
Additional Problems in Veterans from the Iraqi and Afghanistan Wars

• As a result of improvements in battlefield medicine 90% of severely wounded soldiers survive and face additional challenges imposed by significant PAIN.

• Chronic pain increases the risk of mental health disorders including substance abuse disorders.

• Exposure to opiate medications for the treatment of chronic pain can result in opiate addiction.

Peoples et al., NEJM 2004.
Mild Traumatic Brain Injury (TBI) has been reported in 12-18% of soldiers evacuated from Iraq and Afghanistan (Carson study: 1 in 6 shows TBI symptoms. Associated Press. April 11, 2007).

Mild TBI occurring among soldiers deployed in Iraq is strongly associated with PTSD and poorer physical health 3 to 4 months after returning home (Hoge CW et al., NEJM 2008).

No information regarding its effects on SUD.
Brain Areas Affected by TBI

- Diffuse Axonal Injury
- Subdural Hemorrhage
- Contusions

The orbitofrontal cortex is disrupted in addicted subjects and this may contribute to their vulnerability for SUD.

Taber et al., J Neuropsychiatry Clinical Neuroscience 2006.

Volkow et al., Neuropharmacology 2009.
Research Shows that Social *Stressors* Can Have Profound Effects on Illicit and Licit Drug Use

1. Facilitate Initiation
2. Increase Risk of Addiction
3. Trigger Relapse
Research Shows that Social **Stressors** Can Have Profound Effects on Illicit and Licit Drug Use

Who else is affected?

- Spouses
- Families
- Communities
Additional Problems in Veterans

• Nearly one-quarter of Gulf War veterans had been incarcerated at some point.

• Ever incarcerated veterans had a higher frequency of psychiatric & medical co-morbidity.

• Ever incarcerated status was associated with having used illegal drugs.

• Incarceration dramatically increased suicide risk (5-6 fold) & this risk is greater in individuals with SUD (Wortzel et al., J Am Acad Psychiatry Law 2009, Shaw et al., Br J Psychiatry 2004).
Population Penetration
Gap in Need Vs. Service

Got help (past 12 months)

- Acknowledge a problem: 78-86%
- Want help: 38-45%
- Any professional: 23-40%
- Mental health professional: 13-27%

STIGMA is the Main Perceived Barriers to Seeking MH Services Among Respondents Who Met Criteria for a Mental Disorder

January 6-7, 2009, In Collaboration with:

**U.S. Department of Defense**
Army Medical Research and Materiel Command
Department of Defense Health Affairs
Army Center for Substance Abuse Programs

**U.S. Department of Veterans Affairs**

**Other NIH Institutes:**  NCI, NIMH, NIAAA, NHLBI
Meeting Goals

• gain an understanding of the intervention needs of military personnel, veterans, and their families regarding SUD

• discuss prevention and treatment approaches being used and their evidence base

• how to successfully conduct research in military and veteran settings

• help formulate a research agenda

• Basic unanswered research questions
  • Vulnerability
  • Stimulant use in military operations
BACK, SUDIE E -- Integrated Treatment of OEF/OIF Veterans with PTSD and Substance Use Disorders R01 DA030143

GEWIRTZ, ABIGAIL -- Effectiveness of a Web-enhanced Parenting Program for Military Families R01 DA030114

HUDSON, TERESA JO -- Use and Abuse of Prescription Opioids Among OEF/OIF Veterans R01 DA030300

LARSON, MARY JO -- First Longitudinal Study of Missed Treatment Opportunities Using DOD and VA Data DA030150

MCGOVERN, MARK P. -- Integrated CBT for Co-Occurring PTSD and Substance Use Disorders R01 DA030102
AMSTADTER, ANANDA B -- Stress-induced Drinking in OEF/OIF Veterans: The Role of Combat History and PTSD  R01AA020179-03

GOLUB, ANDREW L -- Veteran Reintegration, Mental Health and Substance Use in the Inner-City R01AA020178

MARTENS, MATTHEW P -- Personalized Drinking Feedback Interventions for OEF/OIF Veterans  R21AA020180

ROSENBLUM, ANDREW BRUCE -- Web-based CBT for Substance Misusing and PTSD Symptomatic OEF/OIF Veterans  AA020181

MALONE, RUTH E -- Enhancing Civilian Support for Military Tobacco Control R01CA157014
DESAI, RANI A -- Gender Differences in Post-deployment Addictive Behaviors Among Returning Veterans  CX000453.

CURRAN, GEOFFREY -- An Ethnographic Study of Post-Deployment Substance Abuse and Treatment Seeking  CX000452

BOYKO, EDWARD J -- Tobacco Use and Alcohol Misuse among Participants of the Millennium Cohort Study CX000450

OSLIN, DAVID W -- Integrated vs. Sequential Treatment for Post Traumatic Stress Disorder and Addiction Among Operation Enduring Freedom/Operation Iraqi Freedom Veterans  CX000451
Where Do We Need to Go From Here?

We Need to...

Advance the SCIENCE
and to...
End the STIGMA & Discrimination