Substance Use Disorders in the Military: The NIDA Perspective

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May 3, 2011
Statement of Need
Any Illicit Drug Use Including Misuse of Prescription Drugs

- 2002: 3^{bc}
- 2005: 5^{ac}
- 2008: 12^{ab}

Any Illicit Drug Use Excluding Misuse of Prescription Drugs

- 2002: 2
- 2005: 2
- 2008: 2

Misuse of Prescription Drugs

- 2002: 2^{bc}
- 2005: 4^{ac}
- 2008: 11^{ab}

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*Estimate is significantly different from the 2002 estimate at .05 level

**Estimate is significantly different from the 2005 estimate at .05 level

***Estimate is significantly different from the 2008 estimate at .05 level

Any Illicit Drug Use Including Prescription Drug Misuse = use of marijuana, cocaine (including crack), hallucinogens (PCP/LSD/MDMA), heroin, methamphetamine, inhalants, GHB/GBL, or non-medical use of prescription-type amphetamines/stimulants, tranquilizers/muscle relaxers, barbiturates/sedatives, or pain relievers.

Any Illicit Drug Use Excluding Prescription Drug Misuse = use of marijuana, cocaine (including crack), hallucinogens (PCP/LSD/MDMA), heroin, inhalants, or GHB/GBL.

Misuse of Prescription Drugs = nonmedical use of prescription-type amphetamines/stimulants (including any use of methamphetamine), tranquilizers/muscle relaxers, barbiturates/sedatives, or pain relievers.

*2008 estimates for DoD Services (Army, Navy, Marine Corps, and Air Force) did not differ significantly from All Services (DoD Services plus Coast Guard).

Factors strongly predictive of alcohol problems included:

- Younger age, smoking, and prior alcohol problems
- Reserve/Guard with reported combat exposures at increased odds of:
  - New-onset heavy weekly drinking, binge drinking, and alcohol-related problems
- 3-4 months post-deployment 25% screened positive for alcohol misuse
  - High exposure to atrocities and threatening situations associated with positive screen for alcohol misuse

Deployment associated with an increase in smoking

- Among baseline smokers, deployment **not** associated with increased amount of smoking
- Deployment increases risk of smoking reuptake among those with:
  * Combat experience
  * Multiple deployments
  * Deployments over 9 months
- Predominantly due to smoking reuptake rather than initiation

Prescription Drug Use

Figure 15 Multiple Deployments and Medication Use

Mental Health Advisory Team VI-OEF

Taking Medications

% Reporting

- Sleep Medication
- Medication for MH Problem

3.5%  4.5%  12.9%

1st Deployment  2nd Deployment  3+ Deployments
These Problems Tend to Co-Occur
Post-Traumatic Stress Disorder

- New-onset Post-Traumatic Stress Disorder (PTSD) symptoms among Soldiers:
  - 47% with problem drinking were more likely to report PTSD than those without
  - Compared with never smokers, 21% of past smokers and 69% of current smokers were more likely to report PTSD symptoms
- Service members who reported prior assault also reported more:
  - Problem drinking, past smoking, and current smoking
- Low mental or physical health status before combat exposure significantly increases the risk of symptoms or diagnosis of PTSD after deployment.

(Smith, 2007; Smith, 2008; LeardMann et al., 2009)
Suicide Reports

Army Health Promotion Risk Reduction Suicide Report, 2010:
A total of 397 accidental or undetermined cause of death cases were investigated from FY 2006 – 2009. Of the 397, 47% involved drugs or alcohol. Of these, 74% involved prescription drugs.
“Drug and alcohol abuse is a significant health problem in the army.”

“Stigma continues to be the biggest deterrent to seeking help.”
NIDA Perspective

• These wars are long and ongoing with:
  – long deployments
  – multiple deployments
  – enormous stress for military personnel, returning veterans and their families.

• NIDA is committed to:
  – Understanding the risks for and trajectories of these comorbid problems
  – Development and testing of prevention and treatment interventions to address these problems
NIDA Response to Need
Initial Effort: NIDA Meeting

- **Title**: Addressing Substance Abuse and Comorbidities Among Military Personnel, Veterans, and their Families: A Research Agenda
- **Purpose**:
  - Develop a multi-agency collaboration (NIDA, other NIH ICs, DoD, VA)
  - Identify cross-agency expertise on substance abuse and comorbid problems
- **Goals**: Harness joint expertise to move the science forward and help our troops, returning veterans and their families with effective interventions.
Meeting Goals

Understand:
• Incidence, prevalence, causes and consequences of deployment related problems
• Available prevention and treatment evidence-based interventions (EBIs)
• Evidence supporting available EBIs
• Potential for adapting interventions for military and veteran populations and their families
• Issues related to conducting research with these populations

Formulate a research agenda
Complexities Regarding Substance Use in the Military

- Typical problems related to illicit drug use
- Compounded by zero tolerance regarding illicit drug use
  - Possibility of discharge
  - No confidentiality of medical records
- Potential consequences of treatment on one’s career (e.g., security clearance)
- Stigma related to treatments for drug abuse and mental health (DA/MH)
Complexities in Conducting Research

- Military climate regarding illicit drug use results in difficulties in conducting research
- Lack of human subjects protections
- Barriers to gaining access to military populations and their families
- Institutional barriers to collaborative research between NIH and DoD
Research Issues and Recommendations
General Areas of Research Gaps

• National Guard and Reservists
• Combat wounded
• Pain and prescription drugs
• Co-morbidities
• Stigma
• Military families
Epidemiology/Etiology
Epidemiology/Etiology Research Gaps

Military personnel and veterans:

- Incidence and prevalence of DA/MH disorders across the deployment cycle
- Identification of those at increased risk for DA/MH problems
- Understanding the reciprocal roles between DA and MH disorders
- Determining rates of and relationships between comorbid pain, prescription DA and MH disorders
- Assessing readiness for deployment
Epidemiology/Etiology Research Gaps

Children and families:
- Understand impact of deployment across the deployment cycle at different stages of development
  - Epidemiology of DA/MH disorders
  - Associated risk and protective factors
  - Roles of stress and coping strategies
  - Long-term trajectories
Research Recommendations for Epidemiology/Etiology

Military personnel and veterans:

• Use data from existing epidemiologic surveys to address questions regarding DA/MH comorbidities

• Gather new data to support the development of prevention interventions to minimize risks of developing DA/MH disorders

• Include information on illicit and prescription drugs in longitudinal studies of military personnel
Research Recommendations for Epidemiology/Etiology

Children and families:

• Obtain epidemiologic data on issues facing the children and family members of military personnel, including rates of substance abuse and mental health disorders, and risk and protective factors.

• Longitudinal studies that examine impact of deployment and trajectories of children and families over time and include a developmental focus.
Prevention
Prevention Research Gaps

• Adaptation or development and testing of interventions to prevent increases of ATOD use among military personnel across the deployment cycle

• Interventions that address stress, coping and resilience to prevent DA/MH problems among populations at increased risk (e.g., deployed, poor mental or physical health at baseline)

• Prevention interventions for children and families across development and the deployment cycle.
Research Recommendations for Prevention

Military personnel:

- Evaluate efficacy of current interventions
- Determine which EBIs can be adapted for implementation and testing across the deployment cycle
  - Contexts: primary care clinics, specialty clinics, health screenings, deployment-related and annual screenings, and Battlemind trainings.
  - Use of technology: web-based, video, TIVR
- Development of interventions for prescription drug abuse
Research Recommendations for Prevention

Children and families:

• Evaluate efficacy of interventions currently being used

• Adaptation and implementation of evidence-based prevention strategies for military children and families across the deployment cycle
  – Interventions specific to developmental status (e.g., families with infants/toddlers, young children, pre-teens, adolescents)
Issues to Consider in Using EBIs

- Adaptability of EBIs to the new population and context
- Maintaining fidelity to the original program
- Evaluation of outcomes plus implementation process
- Building in sustainability of quality programming
- Developing ongoing collaborations between military/VA and NIH researchers
Treatment
Treatment Research Gaps

• Data on the types of treatments received by military personnel and veterans and their effectiveness
• Integrative treatments for DA and comorbid conditions (e.g., traumatic brain injury (TBI), cognitive disorders)
• Impact of sequencing of treatments for dual disordered populations relating to DA/MH outcomes
• Research on effective dissemination of EBIs for treatment
Research Recommendations for Treatment

- Adaptation and testing of EBIs for substance use disorders (SUD) among military personnel and veterans
- Development of new treatments for comorbid problems (TBI, prescription drugs, pain, anxiety)
- Development of treatments that address underlying self-medication issues
- Examination of timing and sequencing of treatment interventions
PTSD
Research Gaps for PTSD

• Need for combined treatments for PTSD and DA disorders
• Identifying existing treatments for co-occurring PTSD and TBI
• Identifying existing treatments for sleep disturbance, especially in patients with PTSD
• Examining the effectiveness of concurrent PTSD and chronic pain treatment
Research Recommendations for PTSD

• Behavioral and integrative studies that develop and test treatments for PTSD and comorbid conditions (e.g., DA disorder)
• Testing the optimizing of treatments for multi-morbid patients (e.g., PTSD, TBI, depression, in combination with DA) using pharmacotherapies
• Determining the efficacy of current PTSD and chronic pain treatments.
• Research on the dissemination of PTSD and chronic pain treatments to physicians and other providers.
Intervention Research Issues for Prevention and Treatment

• Moving efficacious EBIs quickly into place
• Barriers:
• Tension between timeliness and effectiveness
• Access to military personnel, veterans and their families for intervention research
• Need for ongoing collaborations between military/VA and NIH researchers
Second Effort: NIDA-Led Funding Opportunity Announcement (FOA)
Funding Opportunity Announcement

- Substance Use and Abuse among U.S. Military Personnel, Veterans and their Families
- Multi-agency collaboration
- $6 million in grants funded in 2010:
  - NIDA: 5 grants
  - NIAAA: 4 grants
  - NCI: 1 grant
  - VA: 4 grants
Studies Funded
NIDA Grants

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
Discussion.....