Army Behavioral Health 2010; PTSD, TBI and Suicide
NAMI

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A Brief History of Psychological Reactions to War

- World War I—“shell shock”, over evacuation led to chronic psychiatric conditions
- World War II—ineffective pre-screening, “battle fatigue”, lessons relearned, 3 hots and a cot
- The Korean War—initial high rates of psychiatric casualties, then dramatic decrease
  *Principles of “PIES” (proximity, immediacy, expectancy, simplicity)*
- Vietnam
  - Drug and alcohol use, misconduct
  - Post Traumatic Stress Disorder identified later
- Desert Storm/Shield
  - “Persian Gulf illnesses”, medically unexplained physical symptoms
- Operations Other than War (OOTW)
  - Combat and Operational Stress Control, routine front line mental health treatment
- 9/11
  - “Therapy by walking around”
  - Increased acceptance by leadership over past eight years
Operation Enduring Freedom/Operation Iraqi Freedom

• Numerous stressors
  – Multiple and extended deployments
  – Battlefield stressors
    • IEDs, ambushes, severe sleep deprivation, direct combat, etc.
  – Medical
    • Severely wounded Soldiers, injured children, detainees
• Changing sense of mission
• Strong support of American people for Soldiers
• Major Focus of senior Army Staff
• Numerous new programs developed to support Soldiers and Families
Recent Background

- Volunteer Army
  - Know they are going to war
  - Seasoned, fatigued
  - Large Reserve Component
  - Reserve, National Guard
- DoD Mental Health Task Force
- Congress provides supplemental funds to DoD in Summer 07
- Elevated suicide rate
- Wounded Soldiers
- Effects on Families
  - Continuous deployments
  - Families of deceased
  - Families of wounded
Range of Deployment-Related Stress Reactions

• Mild to moderate
  – Combat Stress and Operational Stress Reactions (Acute)
  – Post-traumatic stress (PTS) or disorder (PTSD)
  – Symptoms such as irritability, bad dreams, sleeplessness
  – Family / Relationship / Behavioral difficulties
  – Alcohol abuse
  – “Compassion fatigue” or provider fatigue
  – Suicidal behaviors

• Moderate to severe
  – Increased risk taking behavior leading to accidents
  – Depression
  – Alcohol dependence
  – Completed suicides
PTSD Diagnostic Concept

• Traumatic experience leads to:
  • Threat of death/serious injury
  • Intense fear, helplessness or horror

• Symptoms (3 main types)
  • Reexperiencing the trauma (flashbacks, intrusive thoughts)
  • Numbing & avoidance (social isolation)
  • Physiologic arousal (“fight or flight”)

• Which may cause impairment in
  • Social or occupational functioning

• Persistence of symptoms

  *mTBI may be associated with PTSD, especially in the context of Blast or other weapons injury*
Behavioral Health: Where We’ve Been

• Robust surveillance in theater and upon return
  – Mental Health Advisory Teams (MHATs)
  – Post Deployment Health Assessment and Re-Assessment
• Difficulties with access to care
• Stigma about mental health care despite:
  – Chain teach on PTSD and TBI with 900,000 Soldiers in 2007
  – Beyond the Front and Shoulder to Shoulder in 2009
• Increasing surveillance of PTSD and TBI
• Rising suicide rate (multiple reasons: fractured relationships, alcohol abuse).
• Services to help only partially integrated
  – Numerous helping agencies, including medical, behavioral health, chaplains, Family programs
• Close collaboration with DCoE (Defense Center of Excellence)
Behavioral Health: Where We Are

- Evolving Comprehensive Behavioral Health Strategy
  - Comprehensive Soldier Fitness
  - Army’s Campaign Plan for Health Promotion, Risk Reduction & Suicide Prevention (ACPHP)
  - Child and Adolescent Center of Excellence (Madigan)
- MHAT VII pending; will emphasize returned focus on Operation Enduring Freedom (OEF)
- Army PH spend plan
  - The Army has implemented over 45 initiatives under the categories of access to care, resiliency, quality of care, and surveillance
  - Funding: $120M obligated in FY 08, expecting $145M obligations in FY09, POM funds FY10-15
- Improved access to care
  - 68% increase in behavioral health providers since 2007
  - Number of visits has more than doubled since 2003
- Stigma reduction
  - Battlemind lifecycle products fielded to TRADOC (Basic Battlemind)
- New policies to screen for PTSD and TBI
- Extensive unit and population-based research
Behavioral Health: Where We Are Going

• Comprehensive Behavioral Health System of Care Strategy
  – Improved standardized assessments in theater and at home
  – Strong virtual component
  – Reserve component synchronization
  – Measure outcomes (“fusion cell”)
• Continue to improve health surveillance as new issues arise
• Continue to improve access to care
  – Integrated behavioral health and primary care
  – Telemedicine implemented nationally and internationally
  – Revised force structure with increased behavioral health providers
• New treatments, research, and clinical guidelines for PTSD, TBI and pain management
Key OEF Findings

- **Psychological problems:** 14.4% of maneuver Soldiers met criteria for depression, anxiety, and/or acute stress—higher than 2005 but similar to 2007. Support/sustainment rate similar to maneuver rate.

- **Combat exposure:** Higher than previous MHATs.

- **Barriers to care and Stigma:** Maneuver unit barriers higher than previous MHATs. Increase may reflect change in sampling. Stigma rates held constant.

- **Multiple deployments:** Higher rates of mental health problems and marital problems for multiple deployers.

- **Bagram Theater Internment Facility (BTIF):** High rates of psychological problems. Guards may be an at-risk group.

- **Behavioral health assets:** Understaffed IAW Combat and Operational Stress Control Planning Models of 1:700 to 1:1000 staffing ratio.

* First time evaluated by OEF MHAT
Key OIF Findings

- **Psychological problems**: Rate of 11.9% in maneuver units: significantly lower than every year except 2004. Support/sustainment rate is similar.

- **Combat exposure**: Combat exposure levels lower than every year except 2004. Support/sustainment significantly lower than maneuver.

- **Barriers to care and stigma**: Maneuver units reported high barriers. Support/sustainment sample report low barriers. Stigma trends unchanged over time.

- **Dwell-time**: Related to mental health rates in maneuver units. Near return to garrison rates at 24 months dwell-time: full return in 30 to 36 months.

- **Marital problems**: Divorce/separation intent steadily increasing.

- **Resilience**: Positive officer leadership key factor producing resilient platoons.

- **Suicide**: 2008 rate 21.5 per 100k. Similar to 2007. First time since 2004 OIF theater rate (all services) has not increased.
TBI is a disruption of brain function that results from a blow or jolt to the head or a penetrating head injury.

Not "phantom condition" exhibited by a "weak" Service member trying to get out of a deployment
  - A Service member behaving badly or irregularly may be struggling and needs help

Need to make sure we’re doing everything we can to take care of Service members/family members who need help.

Leaders at all levels must ensure individuals are aware of and willing to take advantage of available treatment and counseling options.
The Brain and Perceived Threat

The Limbic System

Frontal cortex

Hypothalamus

Pituitary gland

Amygdala

Hippocampus
OPERATIONAL IMPACT

• **CONCERN**: Service members are *not* coming forward for treatment resulting in delayed identification and complicated CONUS treatment course.

• Early detection leads to early treatment and improved outcome.

• Undiagnosed concussion can result in:
  - Symptoms affecting operational readiness
  - Risk of recurrent concussion during the healing period

• Tracking recurrent concussion will allow for comprehensive medical evaluation of high risk Service members, ensuring a fit fighting force and care for the individual.

Bergsneider et al., J Neurotrauma 17:2000
Treatment & Clinical Improvement (e.g. Hyperbaric Oxygen, Cognitive Rehabilitation)

Rehabilitation & Reintegration: Long Term Effects of TBI

Complementary Alternative Medicine

Blast Physics/ Blast Dosimetry

Neuroprotection & Repair Strategies: Brain Injury Prevention

Field Epidemiological Studies (mTBI)

Concussion: Rapid field Assessment (e.g., Biomarkers/Eye Tracking)

Force Protection Testing & Fielding

OVER $185M for TBI Research
Suicide Rates from 1990-2008

- Historically, the US Army rate has been lower than the US population rate.
- Both populations experienced a downward trend from the mid-90’s to 2001.
- From 2001 to 2006, the US population rate was steady at 1x/100k while the Army rate doubled from 10 to 20/100k.
- The U.S. population was age adjusted to the Army population by excluding those under 15 years of age and over 60 years of age, as well as adjusting the gender and age distribution within the population to a comparable Army distribution.

**Comparable civilian rates were only available from 1990-2006.**

*Army rate projected to Exceed U.S. population rate* Bolt

Risk Factors for Suicide in Army Personnel

• Major Psychiatric Illness Not a Significant Contributor
  – Adjustment disorders, substance abuse common

• Relationships

• Legal/Occupational Problems

• Substance Abuse

• Pain/Disability

• Weapons
  – 70% with firearm

• Recent Trends
  – Older, higher rank, more females
**Common BH EPICON Themes**

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*Source: EPICON published reports*
Suicide in the Army

• Suicide rates are increasing in all components of the US Army, across all age groups, and in both male and female Soldiers
• PDHA/PDHRA does not serve as an optimal way to identify and intervene
  – Need to develop tools for suicide risk assessment
  – Improve suicide assessment training for providers
• The suicide rate among Soldiers who have deployed to OIF/OEF is higher than for Soldiers who have never deployed.
• A comprehensive approach to suicide prevention is required which includes identification and treatment of high risk individuals as well as risk mitigation efforts in the Army population
Burden of Injuries and Diseases
U.S. Army active duty, 2007

Medical Encounters/ Individuals Affected

*Includes all ICD-9 codes groups with less than 50,000 medical encounters

Prepared by: USACHPPM BSHOP

Source: Defense Medical Surveillance System, Jul08
Past Suicide Mitigation Approaches

• Analysis of Incident Suicides
  – DOD Suicide Event Report (DODSER)
  – Epidemiologic Consultations (EPICONS)

• Clinical interventions to identify and treat high risk individuals
  – PDHA/PDHRA Screening
  – Respect.mil training for providers

• Training Soldiers, Leaders and Family Members to recognize and respond
  – ASSIST
  – ACE
  – Battlemind
  – Beyond the Front
  – Stand-Down Training
Suicide Awareness Training

- State-of-the-art universal suicide prevention effort involving a multidisciplinary approach.
- The Army’s suicide awareness and training efforts represent several components
  - An educational program based on the “ACE” acronym that provides Soldiers behavioral-based training to help a fellow Soldier in need
  - An interactive training video entitled, “Beyond the Front” in which Soldiers experience firsthand the impact their actions can have when assisting a Soldier who is suicidal. All Soldiers received this training Feb-March 2009.
  - “Shoulder to Shoulder” chain teach March to July 2009.
- New Army Suicide Prevention Task Force
- Pending DoD Suicide Prevention Task Force
Suicide Risk Assessment

Behavioral health care providers and key unit members play an active role in the management and treatment of suicidal Soldiers.

• Improve suicide assessment and evaluation (primary care, behavioral health clinic, VA).
  – Establish best clinical practices and standards of care
  – Train behavioral health and medical care providers at all levels
  – Conduct routine reviews and audits to ensure compliance
• Improve engagement and retention in behavioral health care employing motivational interviewing techniques.
• Involve close family members and friends where ever possible.
• Inform and educate unit leaders as appropriate.
• Enhanced focus on postvention efforts (maintain vigilance post crisis), including cases of completed suicides.
Causal Factors

• Multiple individual, unit, and community factors appear to have converged to shift the population risk to the right

• This would put more Soldiers in the Very High Risk category making clustering more likely

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**Facts**

**Individual**
- Criminality/Misconduct
- Alcohol / Drugs
- BH Issues (untreated/under-treated)

**Unit**
- Turnover
- Leadership (Stigma)
- Training / Skills

**Environment**
- Turbulence
- Family Stress / Deployment
- Community
- Stigma
Factors to Consider

• While it is important to identify and help individual Soldiers, the biggest impact will come from programs that shift the overall population risk back to the left

• Effective medical treatment can prevent individuals from increasing in risk or decrease their risk, but it cannot shift overall population risk very much

**Army Campaign Plan:**
- Health Promotion, Risk Reduction, and Suicide Prevention
- Increase Resiliency
- Decrease Alcohol/Drug Abuse
- Decrease Untreated/Undertreated BH
- Decrease Stigma to Seeking Care
- Decrease Relationship/Family Problems
- Decrease Legal/Financial Issues

**Installation:**
- Reintegration (Plus)
  - Mobile Behavioral Health Teams
  - Mental Toughness Training
  - Resiliency Training
  - Military Family Life Consultants
  - Decompression Reintegration
  - Warrior Adventure Quest

- Consistent Stigma Reduction themes
Resiliency Programs

• **Battlemind**
  - The US Army psychological resiliency building program. This term describes the Soldier’s inner strength to face fear and adversity during combat, with courage and speaks to resiliency skills that are developed to survive. It represents a range of training modules and tools under three categories: Deployment Cycle, Life Cycle and Soldier Support.

• **Suicide Prevention**

• **Provider Resiliency Training**

• **Reunion and Reintegration**
  - Deployment Cycle Support is in process of being upgraded.

• **Other Programs in Development**
  - New resiliency programs are being funded under congressional TBI/PH supplemental dollars

• **Warrior Adventure Quest**

• **Comprehensive Soldier Fitness**
Battlemind Training System:
Web Page

www.battlemind.army.mil
WARRIOR ADVENTURE QUEST

• WAQ utilizes high risk/extreme sports in coordination with a debriefing tool to provide Soldier/Leader/Unit mitigation and coping skills that can address unresolved transition issues and build unit cohesion and moral, contributing to combat readiness.

• WAQ is NOT specific to reintegration, it is a training tool that can be incorporated across the ARFORGEN cycle.
Reintegration and Reconstitution

- Mobilization
- Deployment
- Employment (Mission Execution)
- Redeployment
- Post Deployment
- New Level of Normal
- Reconstitution

Manifestations
- Numbness
- Invincibility
- Inevitability

Risk/Destructive Behavior
- DWIs / DUIs
- Accidents
- Marital Issues
- Suicide

Peak Stress

Time / Deployment Cycle

UNCLASSIFIED
Unit Resiliency Fundamentals

**Horizontal Bonding:** Trust

**Vertical Bonding:** Trust

**Esprit de Corps:** Sense of

**Unit Cohesion:** Binding force which combines 3 previous concepts

- FM 6-22.5, COSC Guide, Leaders and Warriors (DRAFT, FEB 09)

Copyright 2002 From Black Hawk Down, Columbia TriStar Home Entertainment
Train/Ready

- Unremitting High OPTEMPO
- Risky Behavior
- Integration of new Soldiers
- Behavioral issues in adolescents
- Health care for RC Soldiers and Families

Regional Medical Command Readiness Division

- Fusion Cell
- Nurse Case Management
- Surge Support

Available/Deployed

- Stress Reaction From Last Deployment
- Behavioral issues in younger children
- Increased child abuse

Early intervention by Combat Mindsaver, Brigade medical staff, Chaplains
Continuity of care through telemedicine

CSF, Master Resilience Trainers
Battlemind
Wellness/Resiliency Centers
Monitoring by Fusion Cell
Case management, transition to new installation by NCM or Social Worker

Unit assessment
Screening by RESPECT-MIL trained NCM at reverse SRP
Informed assessment, tailored intervention by CSF trained provider prior to block leave

4.0 – Assessment

1.1 Pre-deploying Units
1.2 Deployed Units
1.3 Re-deploying Units
1.4 Rear Detachment / Garrison
1.5 Geographically Dispersed
1.6 Standardize Best Practices ICW DCoE
1.7 Align with CSF
1.8 Care Giver Support Program
3.1 BH provider training
3.2 TDA / Garrison
3.3 VBH
3.4 Facilities Requirements
3.5 Common BH Clinical IT Platform
3.6 Integrate BH practices into Primary Care
2.1 Battle handoff: Pre-dep to deployed
2.2 Battle handoff: deployed to re-deploy
2.3 Transitional (PCS / WTU / Schools)
2.4 VA / USAR/ ARNG/ DCoE / TRICARE
2.5 RTD to Unit or Transition Back to Civilian Life
2.6 Mobilization / De-Mobilization
3.7 Mobilization / De-Mobilization
4.0 – Assessment
5.0 – STRATCOM

Reset

- Reintegration Issues
- Risky Behavior
- Behavioral issues in adolescents
- PCS, schools and changes of command
- Employment issues for ARNG and USAR
Continuing Challenges

- Array of services
- Stigma
- Increasing number of Soldiers with mTBI and PTSD
- Shortage of Providers
- Remote locations
- High OPTEMO
- Public Perceptions
- Suicide rate
- Lack of providers who accept TRICARE
- Provider fatigue
- Warrior Transition Office Soldiers
- Reintegration
- Guard/Reserve Soldiers
- Pain Control

Way Ahead

- Integration of services
- Policy changes, education
- Integration with primary care, other portals of care
- Grow number of providers
- Tele-Behavioral Health
- Optimal Reintegration
- Strategic communication
- Re-engineered suicide prevention
- Actively recruit providers to TRICARE
- Provider resiliency training
- Mental health organic in WTUs
- Enhanced reintegration strategies
- Mental health organic in Guard/Reserve
- Updated Clinical Practice Guidelines in Pain