Recovery Support for Service Members, Veterans and Their Family Members Affected by TBI

Katharine Stout, PT, DPT, NCS, MBA
Scott Livingston, PhD, PT, ATC
Johanna Smith, M.A.

“Medically Ready Force...Ready Medical Force”
Presenters

■ Katharine Stout, PT, DPT, NCS, MBA is the Director of Clinical Affairs for the Defense and Veterans Brain Injury Center - the TBI operational component of the Defense Centers of Excellence for Psychological Health and Traumatic Brain Injury (DCoE)

■ Scott Livingston, PhD, PT, ATC is the Director of Education for DVBIC

■ Johanna Smith, MA is the Longitudinal Studies Program Analyst in the Research Division, DVBIC

“Medically Ready Force...Ready Medical Force”
Disclosure

- Dr. Katie Stout, Dr. Scott Livingston and Ms. Johanna Smith have no relevant financial relationships to disclose.

- The views expressed in this presentation are those of the authors and do not necessarily reflect the official policy or position of the Department of Defense, nor the U.S. Government.

- Commercial support was not received for this activity.
Objectives

- Examine the components of the **Recovery Support Program** to identify how the services offered serve proper patient constituent groups within the Tri-care Health System.

- Compare and contrast **DVBIC products on TBI** to differentiate between appropriate resources for service members, veterans and family members and identify the congressionally-mandated Family Caregiver Guide uses and components.

- Examine the current state of DVBIC’s congressionally-mandated **15-year longitudinal study on TBI**.
Caring for Wounded Warriors with Traumatic Brain Injury

Defense and Veterans Brain Injury Center
Recovery Support Program (RSP)

Katharine Stout, PT, DPT, NCS, MBA
Clinical Affairs Division Director
Defense and Veterans Brain Injury Center

“Medically Ready Force...Ready Medical Force”
DCoE Overview

- DCoE is the lead agency for the Department of Defense (DoD) accountable for the psychological health and traumatic brain injury prevention and care in the Military Health System (MHS). We are responsible for creating, evaluating and integrating psychological health and TBI practices and policies across the armed services.
- Identifies priorities and gaps in policies practices and research
- Creates clinical tools and recommendations
- Promotes scientific or evidence-based practices
- Leads program evaluation efforts and effectiveness studies and assess cost-saving measures

“Medically Ready Force...Ready Medical Force”
Overview of DVBIC

- TBI operational center of Defense Centers of Excellence for Psychological Health and Traumatic Brain Injury (DCoE)
- Supports service members, veterans, families and providers at our 16 network sites, which can be military treatment facilities and VA medical centers

<table>
<thead>
<tr>
<th>Research</th>
<th>Clinical Affairs</th>
<th>Education</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clinical investigations</td>
<td>Care and consultation</td>
<td>Develop educational tools</td>
</tr>
<tr>
<td>Congressionally-mandated studies</td>
<td>Identification/sharing best practices</td>
<td>TBI awareness training</td>
</tr>
<tr>
<td>Epidemiological research</td>
<td>Clinical guidelines and recommendations (CRs)</td>
<td>Product distribution/dissemination</td>
</tr>
<tr>
<td>Data analysis</td>
<td>TBI surveillance</td>
<td>Family Caregiver Program</td>
</tr>
<tr>
<td>Translation of research</td>
<td>Recovery Support Specialists (RSS)</td>
<td>Regional Education Coordination (REC)</td>
</tr>
</tbody>
</table>

“Medically Ready Force...Ready Medical Force”
2007 – Defense and Veterans Brain Injury Center (DVBIC) initiated the: Care Coordination Program (CCP)

- Identified need for care coordination from 2 national reports
- Recovery Care Coordinators (RCC) worked with Landstuhl to ensure service Members were appropriately connected with TBI services
- Work with service and VA programs
Program Evaluation and Evolution

- 2012 – RAND evaluation of Care Coordination Program
  - Name Change: Recovery Support Program (RSP)
  - Refocus of mission

- 2015 – Transition of program document to Wounded Ill and Injured Registry (WIIR) for ongoing program evaluation
Current State

2016

- Initial 1 year program evaluation done
- Coordination and collaboration with service specific programs
- Military treatment facility and Veterans Health Administration presence
- Integration with the Interagency Care Coordination Committee (IC3)
The Future of TBI Recovery Support

2017 and beyond

- Ongoing program evaluation
- Utilization of program evaluation data to direct and predict future needs
- Collaboration with educational support networks
Service Member, Veteran, & Family Member TBI Resources

Scott Livingston, PhD, PT, ATC

Education Division Director
Defense and Veterans Brain Injury Center
The Defense and Veterans Brain Injury Center provides free resources on TBI to help service members, veterans, family members and health care providers. These resources include educational materials, fact sheets, clinical recommendations and much more.

Visit: http://dvbic.dcoe.mil/resources
DVBIC Products

■ General
  o DVBIC fact sheet
  o TBI Awareness fact sheet

■ Medical providers
  o DVBIC Clinical Recommendations (13)
  o Research Reviews (information papers)
  o DVBIC publications

■ Service Members & Veterans
  o Concussion Signs & Symptoms fact sheet
  o Concussion/Mild TBI and PTSD fact sheet
  o Mild TBI Symptom Management fact sheets (8 topics)
  o A Head for the Future fact sheets (4)

■ Family & Caregivers
  o Addressing Family Needs booklet
  o A Parent’s Guide to Returning Your Child to School After Concussion booklet
  o Taking Care of Yourself While Caring for Others booklet
  o Talking with Children About TBI booklet
  o TBI: A Guide for Caregivers of Service Members and Veterans curriculum

“Medically Ready Force...Ready Medical Force”
FACT SHEETS

DVBIC fact sheets present information on various topics related to TBI – symptom management, awareness and prevention, family resources and more.

- **Traumatic Brain Injury Awareness** fact sheet
- **Concussion Signs & Symptoms** fact sheet
- **Concussion/Mild TBI and PTSD** fact sheet
- **Mild TBI Symptom Management** fact sheets (8 topics)
- **A Head for the Future** fact sheets (4)
- **Back to School** booklet
Service Member & Veteran Resources

Signs and Symptoms
Concussion/Mild Traumatic Brain Injury

**DEFINITION:**
A traumatic brain injury (TBI) is a blow or jolt to the head that disrupts the normal function of the brain. The severity of the TBI is determined at the time of the injury and may be classified as mild, moderate, or severe.

**COMMON SIGNS AND SYMPTOMS:**
Physical
- Headache
- Sleep disturbances
- Dizziness
- Balance problems
- Nausea/vomiting
- Fatigue
- Visual disturbances
- Light sensitivity
- Ringing in ears

Cognitive
- Slurred speaking
- Poor concentration
- Memory problems
- Difficulty finding words

Emotional
- Feeling anxious
- Feeling depressed
- Irritability
- Mood swings

**Did you know?**
Concussion—another word for a mild TBI—is the most common form of TBI in the military. Symptoms of concussion often resolve within days or weeks.

**COPING TIPS:**
- Write things down.
- Store important items in a designated place to keep from losing them.
- Pace yourself and take breaks as needed.
- Focus on one thing at a time.
- Allow time for your brain to heal. It’s the most important thing you can do.

**RECOVERY TIPS:**
- Avoid smoking.
- Stay out of contact sports.
- Get enough sleep—7 to 8 hours a night.
- Take medications as instructed.
- Avoid overexerting yourself physically or mentally.
- If you’re concerned about your symptoms or if they’re not improving, see your provider.
- Stay engaged with your family and provider as your symptoms improve.
- Avoid using drugs, alcohol or energy drinks. These can disrupt your recovery process.

**FIND A DVBICS SITE NEAR YOU:**
- Camp Lejeune, N.C.
- Camp Pendleton, Calif.
- Fort Bragg, N.C.
- Fort Carson, Colo.
- Fort Hood, Texas
- Landstuhl Regional Medical Center, Germany
- NMIC, San Diego
- San Antonio Military Medical Center, Texas
- Joint Base Elmendorf-Richardson, Alaska
- Fort Belvoir, Va.
- Walter Reed National Military Medical Center, Md.
- VA Boston
- VA Minneapolis
- VA Palo Alto, Calif.
- VA Richmond, Va.
- VA Tampa, Fla.

**Recovery is different for every person and depends on the nature of the injury.**

DVAIC in proud to partner with the Army, Navy, Air Force, Marine Corps and Coast Guard on this product.

Do you have questions about this fact sheet? Email info@dvaic.org.

Released: October 2015 | Reviewed: August 2018

This product is reviewed annually and updated. Visit dvbic.org for the latest information.

DVNIC is the TBI operational component of the Defense Centers of Excellence for Psychological Health and Traumatic Brain Injury.

“Medically Ready Force...Ready Medical Force”
Fact sheet for service members, veterans, and their friends and family provides information about the similarities and differences between symptoms of TBI & PTSD.
Service Member & Veteran Resources

Mild TBI Symptom Management fact sheets:
- Managing Headaches
- Help with Ongoing Symptoms
- Headache and Neck Pain
- Head Injury and Dizziness
- Changes in Behavior, Personality or Mood
- Ways to Improve Your Memory
- Healthy Sleep

"Medically Ready Force...Ready Medical Force"
A Head for the Future - Resources

- Bicycle safety fact sheet
- Sports safety fact sheet

Bicycle safety fact sheet

1. Always wear a helmet when riding or racing your bike. Wear your helmet properly tightening the strap snug to fit your head.
2. Check the weather: inclement weather can create slick spots on the road. High winds make riding more difficult, and limited visibility for detecting hazards.
3. Ride with the traffic on the right, allow for proper passing, use headlights at night.
4. Always use your lights when dark or early morning.
5. Never bike drunk or under the influence of drugs.

Sports safety fact sheet

Think Ahead Before you Get Out and Go

High speed and high intensity – the thrill of riding your bike never gets old. Once you are out for a spin, you may forget, but before you get out on the road or trail, you should review a few safety tips:
- Wear appropriate gear – like wearing a helmet and wrist guards.
- Use safety equipment – like wearing a helmet and wrist guards.
- Use proper technique – like using the proper technique when riding.
- Be aware of your surroundings – stay aware of your surroundings when riding.
- Be a good neighbor – respect the rights of others when riding.

What is a TBI?

A Traumatic Brain Injury (TBI) is an injury to the brain that results in the loss of normal brain function. A TBI can range from a concussion to a severe brain injury with long-term effects. TBI is the number one cause of death and disability in the U.S. and worldwide.

What is a TBI?

A Traumatic Brain Injury (TBI) is an injury to the brain that results in the loss of normal brain function. A TBI can range from a concussion to a severe brain injury with long-term effects. TBI is the number one cause of death and disability in the U.S. and worldwide.

FOUO

“Medically Ready Force...Ready Medical Force”
A Head for the Future - Resources

- Driving safety fact sheet
- Motorcycle safety fact sheet

Prevent Brain Injuries From Motor Vehicle Collisions — A Leading Cause of Military TBI

Service members, veterans, and their families are always on the go, constantly moving from place to place. As a result, they may be more likely to be involved in traffic accidents, which can result in traumatic brain injuries (TBI). Here are some tips to help prevent TBI:

1. **Drive defensively.** Be aware of your surroundings and stay focused on the road.
2. **Use seat belts.** Buckle up in your car, truck, or motorcycle to protect yourself in case of an accident.
3. **Stay alert.** Avoid distractions such as cell phones, radio, or music while driving.
4. **Follow traffic laws.** Adhering to speed limits and signal rules helps prevent accidents.
5. **Be visible.** Use your headlights and lights when driving in low-light conditions.
6. **Stay in control.** Avoid alcohol and drugs before driving, and make sure your vehicle is in good condition.

What is TBI?
TBI is a type of brain injury that occurs when there is a sudden jolt or blow to the head or a shaking motion of the head. TBI causes the brain cells to swell and bleed, which can lead to temporary or permanent damage.

Look out for these signs and symptoms of brain injury:
- Loss of consciousness or amnesia
- Severe headache
- Dizziness or bleeding
- Changes in behavior or mood
- Numbness or weakness in the limbs
- Speech or memory problems
- Difficulty walking or chewing

Get help and recovery:
- Seek medical advice immediately
- Avoid driving or operating heavy machinery
- Avoid alcohol and drugs
- Follow up with a doctor
- Get plenty of rest

Prevent Motor Vehicle Collisions — Taking on the Road

1. Wear your motorcycle helmet properly, tightening the strap snug to fit your head. Passengers should always wear helmets too.
2. Drive safely, only on designated roads and paths, at or under the designated speed limit.
3. Use other means of travel if there is inclement weather.
4. Never drive under the influence of alcohol, drugs or prescription medication.
5. Give your kids a checkup before you head out.
6. Focus on your surroundings, and make sure other drivers can see you.

“Medically Ready Force...Ready Medical Force”
DVBIC created a free resource for service members and veterans who have sustained a TBI and plan to go back to school. The *Back to School Guide to Academic Success After Traumatic Brain Injury.*

The guide includes information service members and veterans need to start their academic journey, from symptom management to choosing a school and adjusting to civilian campus culture.

*Available to download or order hard copies at dvbic.dcoe.mil.*
Back to School Guide

Contents:

• Getting Started (frequently asked questions, taking the first step, back-to-school checklist)
• Money Matters
• Getting on Track
• Manage Your Symptoms
• Make the Transition
• Tech Tools
• Student Resources
• References
Family Member & Caregiver Resources

Family Needs Product Line
- Addressing Family Needs
- Talking with Children About Moderate or Severe TBI
- Taking Care of Yourself While Caring for Others
- Talking with Children About TBI
Family Member & Caregiver Resources

**Addressing Family Needs:** This booklet is essential to families with a service member/veteran with a TBI. Everyone in the family is affected, and this tool will assist during this time of transition.

**Talking With Children About Moderate or Severe TBI:** This booklet provides essential tips on how to explain to children what a moderate or severe TBI is and how to cope with the changes in their loved one.

**Taking Care of Yourself While Caring for Others:** This booklet offers coping techniques for caregivers and families who are trying to manage stress, anxiety or sadness, while caring for an injured service member/veteran. Experts provide advice on relaxation and self-care.

**Talking with Children About TBI:** This booklet offers communication techniques that can help you explain the effects of TBI to children in a way they can understand. Includes tips for every age group, from toddlers to teens.
Family Needs Product Line (latest publication)

- **A Parent’s Guide to Returning Your Child to School After Concussion**

- This booklet helps you successfully return your child to school following a concussion by providing guidance on asking for help from the school and making sure your child is getting enough rest at home.
Family Member & Caregiver Resources

**Traumatic Brain Injury: A Guide for Caregivers of Service Members and Veterans**

- Congressionally mandated 2007 (NDAA of 2007, Sec 744)
- Development of “…coordinated, uniform, and consistent training curricula to be used in training family members in the provision of care and assistance to members and former members of the Armed Forces with traumatic brain injuries.”
- The act established a 15-member panel (appointed by the White House & Defense Health Board) to develop the curriculum.
- Version 1 – published 2010

“Medically Ready Force...Ready Medical Force”
Family Member & Caregiver Resources

**Traumatic Brain Injury: A Guide for Caregivers of Service Members and Veterans**

This resource is a source of information and support for caregivers of service members and veterans who have sustained a moderate, severe or penetrating TBI.


- **Module 1:** Introduction to TBI
- **Module 2:** Understanding the effects of TBI and what you can do to help
- **Module 3:** Becoming a family caregiver for a service member or veteran with TBI
- **Module 4:** Navigating services and benefits

“Medically Ready Force...Ready Medical Force”
Family Member & Caregiver Resources

- This resource is broken down into sections or modules:

**Module 1:** Introduction to Traumatic Brain Injury. This module describes the brain and how its function is affected by TBI. The focus of this module is to help caregivers understand the changes that can be seen in their loved ones.

**Module 2:** Understanding the Effects of TBI and What You Can Do to Help. This module explains in more detail the physical and emotional effects of TBI. It also explains to the caregiver how they can help their family member deal with these issues.

**Module 3:** Becoming a Family Caregiver for a Service Member/Veteran with TBI. This module is all about the caregiver. It has tips on how to organize life as a caregiver and encourages caregivers to take care of themselves during this stressful time.

**Module 4:** Navigating Services and Benefits. This module explains how the disability rating system works. It describes how to get services and benefits that can help you take care of your injured family member.

“Medically Ready Force...Ready Medical Force”
A Head for the Future

DVBIC’s initiative to raise awareness and lower the risk of concussion for patients, families, providers and line leaders. Includes videos of service members and veterans who recognized TBI symptoms and got help.

http://dvbic.dcoe.mil/aheadforthefuture

“Medically Ready Force...Ready Medical Force”
A Head for the Future - Resources

- Information about signs and symptoms of TBI, definition of TBI, common causes, preventing TBI, how to get treatment
- Fact sheets with tips to prevent TBI
- Promotional posters and postcards
- Video and blog testimonials

What are the common causes of concussions and other brain injuries?

You might think that the chances of getting a TBI are too high for those in combat. In fact, according to the Armed Forces Health Surveillance Center, concussions and other brain injuries in service members most often occur from incidents associated with:

- Motor vehicle collisions
- Falls
- Sports
- Assault
- Accidental or intentional discharge of weapons
- Impact with objects

What you need to know: Most of these brain injuries can be prevented.

“Medically Ready Force...Ready Medical Force”
A Head for the Future – TBI Champions

A Head for the Future TBI Champions video series features service members and veterans who sought help for brain injuries.

http://dvbic.dcoe.mil/aheadforthefuture/stories
A Head for the Future – Social Media

Follow A Head for the Future on social media for brain injury news, updates from the initiative, new stories and interactive campaigns.
Facebook @A Head for the Future
Twitter @AHFTF_PAGE
Defense and Veterans Brain Injury Center
Longitudinal TBI Research

Johanna M. Smith, MA
Longitudinal Studies Program Analyst

“Medically Ready Force...Ready Medical Force”
The Secretary of Defense shall conduct a longitudinal study on the effects of TBI incurred by members of armed forces serving in OIF/OEF and their families

Elements

1. Long term physical and mental health effects of TBI
2. Health care, mental health care, and rehabilitation needs after completion of inpatient treatment
3. Type and availability of long-term care rehabilitation programs and services within and outside the DoD and VA, including community based programs and services and in-home programs and services
4. Effect on family members
DoD/VA Collaboration on 15-Year Studies

- Exploring the Natural History of TBI within a Military Cohort: A 15 Year Longitudinal Database and Blood Banking Study (**Natural History Study**)  
  DoD

- Improved Understanding of Medical And Psychological Needs in Veterans and Service Members with Chronic TBI (**IMAP**)  
  VA

- Health Related Quality of Life in Caregivers of Service Members with Military Related TBI (**Family Caregiver Study**)  
  DoD

**“Medically Ready Force...Ready Medical Force”**
Congressionally Mandated Research

15 Year Studies

Archival Studies
- Existing Databases
  - CTF & CORE: WRAMC/WRNMMC
    - Scientific Directors: Drs. Rael Lange and Tracey Brickell

Natural History Study
- Comprehensive Pathway
  - Scientific Director: Dr. Rael Lange
- Brief Pathway
  - Scientific Director: Dr. Tracey Brickell

Caregiver Study
- Three Study Phases
  - Scientific Directors: Drs. Tracey Brickell and Rael Lange

HRQOL Evaluation
- Caregiver Burden
- Access/Barriers to Care Health
- Care Needs
- Family/Mental

HRQOL Development
- Use PROMIS Methodology
- Identify TBI-CareQOL Items
- Validate TBI-CareQOL
- Develop CATs & Short Forms

Blood Banking
- Genomics
- Proteomics

Sensory/Motor
- Vestibular
- Speech Pathology
- Audiology
- Optometry
- Physical Therapy

Neuroimaging
- DTI
- MR Spectroscopy
- SWI
- IMRI
- SPECT/PET

Neurocognitive
- Attention/Concentration
- Executive Functioning
- Visuospatial
- Language
- Processing Speed
- Memory

Neurobehavioral
- Postconcussion Sx
- Posttraumatic Stress
- Psychological
- Combat Exposure
- HR-QOL
- Psychopathology

Clinical Interview
- Health/Mental Health
- Return to Duty
- Access/Barriers to Care
- Health Care Needs
- Family/Mental
- Service Needs

“Medically Ready Force...Ready Medical Force”
Recovery Support Take Away

- Ongoing recruitment
- Year 3 Congressional report completed June 2013
- Year 7 Congressional report due 2017
- Utilization of research outcomes to inform
  - TBI literature
  - Health care policy, programs and future initiatives on TBI
  - Family Caregiver Guide updates

“Medically Ready Force...Ready Medical Force”
Recovery Support for Service Members, Veterans and Their Family Members Affected by TBI

Katharine Stout, PT, DPT, NCS, MBA
Clinical Affairs Division, DVBIC
Katharine.c.stout.civ@mail.mil

Scott Livingston, PhD, PT, ATC
Education Division, DVBIC
Scott.c.livingston.civ@mail.mil

Johanna Smith, M.A.
Research Division, DVBIC
Johanna.m.smith13civ@mail.mil

“Medically Ready Force...Ready Medical Force”