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PURPOSE

To present an overview of

- TBI and PTSD in the military
- Types of screening processes employed for TBI and PTSD
- Early intervention programs to improve outcome of those who sustained TBI and PTSD
- Programs for re-integrating returning veterans affected by TBI and PTSD into the community
BACKGROUND OF TBI AND PTSD

- Significant injury affecting service men and women serving in OEF and OIF
- Brain injuries are common combat casualties in these conflicts
- Primary causes are blast injuries
METHODS

- Performed a literature review of various websites and journals
- Searched
  - Department of Defense (DoD)
  - Department of Veterans Affairs (VA)
  - Defense and Veteran Brain Injury Center (DVBIC)
  - US Army Wounded Warriors Program
TRAUMATIC BRAIN INJURY

- A “traumatically induced structural injury and/or physiologic disruption of brain function as a result of an external force” as defined by the DoD

- Classification: based on loss of consciousness, posttraumatic amnesia and the Glasgow Coma Score:
  - Mild
  - Moderate
  - Severe
SCREENING FOR TBI

- Early detection important in management
- Screening tool developed by the DVBIC in 2006 known as the Military Acute Concussion Evaluation or MACE
- Currently the only standardized and most widely used method for evaluation of acute TBI in the military setting
- Rapid screening tool for cognitive function
RESULTS

- Between January 2003 and September 2009, 63,856 service men and women identified within the DoD TBI Surveillance data
- Majority were mild TBI
- TBI has profound effect on our fighting force and their families
- Represents a significant health care cost
EARLY INTERVENTION PROGRAMS

- Address physical, mental and social well being
- For early recovery
- Social network important (family, friends)
PROGRAMS FOR RE-INTEGRATION INTO THE COMMUNITY

- Establishment of Community Based Warrior Transition Units (CBWTUs)
- The Army Wounded Warrior Program
PTSD

- Relatively new psychiatric diagnosis first appearing in the Diagnostic and Statistical Manual III (DSM-III) in 1980
- Has a known etiology such as a life threatening event or a serious injury
- Course is variable
PTSD

Combat-related PTSD:

- Higher lifetime prevalence
- Greater likelihood of delayed onset
- Greater likelihood of not being amenable to treatment
- Male and female troops suffer from PTSD at about the same rate
- In the general population women are twice as likely as men to develop PTSD
SCREENING TOOLS FOR TBI AND PTSD

- MACE initial tool for TBI and has shown to be effective
- Screening tools for PTSD should be short and easy to administer
- Two commonly used screens for PTSD, the Primary Care-PTSD Screen (PC-PTSD) and the PTSD Checklist (PCL), and if used three months after deployment, performed well in accurately diagnosing PTSD
SCREENING FOR PTSD

Variety of screens are available

- Clinician-Administered PTSD Scale (CAPS)
- Beck Anxiety Inventory-Primary Care (BAI-PC)
- Primary Care PTSD Screen (PC-PTSD)
- PTSD Checklist (PCL)
TBI and PTSD

- Share many similarities such as deficits in concentration, insomnia, irritability and social detachment
- Share some neurophysiological and functional neuro-anatomical characteristics
- Overlap in the domains of attention, working memory and executive function
- Abnormalities in pre-frontal and temporal brain regions in both disorders
EARLY INTERVENTION PROGRAMS

- Essential for improving the outcome of TBI and PTSD
- Shown to improve physical, mental and social well-being
DISCUSSION

- The current conflicts in both Afghanistan and Iraq with improvised explosive devices (IEDs), motor rounds, rocket-propelled grenades (RPGs) and suicide bombers have created significant blast injuries resulting in TBI.
- Mortality has declined due to the advances of body armor and armored combat vehicles.
- Decreased mortality has also resulted in increased morbidity, most commonly, TBI.
PROGRAMS FOR RE-INTEGRATION INTO THE COMMUNITY

- CBWTUs
  - Initially structured in March of 2005 and called Community Based Health Care Organization (CBHCO)
  - Name changed to CBWTU in 2009
  - Currently located in 11 states

- Army Wounded Warrior Program (AW2)
  - Support system
  - Helps the wounded warrior from the battlefield to the civilian community
CONCLUSION

- The wars in both Afghanistan and Iraq have shown a substantial increase in TBI and PTSD in our combat troops.
- Advances in body armor and increased frequency of blasts with increased survivability explains why both TBI and PTSD are more frequent than in other conflicts.
- Effective screening techniques are now employed for soldiers returning from deployments to evaluate TBI and PTSD.
- More programs are offered to re-integrate veterans who have sustained TBI and PTSD than in previous wars.
REFERENCES

  


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- Warden, Deborah, MD. “Military TBI During the Iraq and Afghanistan Wars.” *Journal of Head Trauma Rehabilitation*. 21, no 5 [2006]: 398-402.