

PTSD: Not solely the domain of the injured

- Can effect individuals at all levels of TBI severity
- May function as a silent component of individuals with multiple “mild” TBI (post concussive injuries, Blast injuries)
- Likelihood of affecting others involved, including medical caregivers, hospital personnel, trauma team
- Effects may be delayed, the “Russian Doll” theory (Travers, 1991)



Compassion Fatigue and PTSD: The same disease process affects the person and their caregivers



- **First responders and crisis workers absorb the same traumatic stress as those they help**
(Beaton and Murphy, 1995)
- **The concept of “contagion”:** spread of PTSD symptoms between people
(Figley, 1997)
- **Family members become traumatized caring for their injured loved one**
(Barnes, 1997)
- **Emergency medical personnel experience PTSD symptoms in response to catastrophic injuries**
(Figley, 1982)
- **Secondary Victimization**
(Figley, 1997)

PTSD: Mental health problem or a permanent change in brain function?



- Rates of generalized anxiety, major depression and 17% after tour of duty for Iraq veterans and 11.2% for Afghanistan veterans (Hoge, New England J. of Medicine 2005)
- Intensity of exposure to combat/firefights, IED's, handling the dead/injured and frequency of injury increased risk for PTSD (Hoge, 2005)
- Increased activity in amygdala and reduced activation of the anterior cingulate gyrus and medial prefrontal gyrus seen in individual with PTSD (Friedman, M., Neuropsychiatry Review Jan. 2006)
- Resilience seen in individuals capable of mobilizing neuropeptide-Y (NPY) (Friedman, M., 2006)
- Changes to the function of the brain occur with PTSD
- Why are some people more resilient than others?
- What happens to the soldier with a brain injury and PTSD?

Medical Staff in Iraq



“You have a lot of emotional conflict.”

Maj. Jack Emps, RN



The Genesis of PTSD

- Exposure to (abusive) violence
- Exposure to deprivation
- Loss of meaning
- Loss of control

Source: Shay, Achilles in Vietnam, 1995

PTSD and the DSM-IV: A Cluster of symptoms involving reexperience, avoidance and hyperarousal?

- **Exposure to a traumatic event via personal experience, witness or confrontation of actual or threatened death or serious injury or threat to the physical integrity of self or others**
- Response involved intense fear, helplessness or horror
- Recurrent, intrusive and distressing recollections of the event (images, thoughts, perceptions)
- Recurrent distressing dreams of the event
- Acting or feeling that the traumatic event was occurring
- Intense psychological distress and physiological reactivity at exposure to internal or external cues that symbolize or resemble the event
- **Persistent avoidance of stimuli associated with trauma and a generalized numbing of response**
- Efforts to avoid thoughts/feelings associated with the trauma
- Efforts to avoid activities, places or people associated with the trauma
- Inability to recall an important aspect of the trauma
- Diminished interest/participation in significant activities
- Feeling of detachment or estrangement from others
- Restricted range of affect
- Sense of a foreshortened future
- **Persistent symptoms of arousal**
- Sleep difficulties
- Irritability or anger outbursts
- Problems concentrating
- Hypervigilance
- Exaggerated startle response
- **Duration of symptoms is more than 1 month**
- **Clinically significant distress or impairment in social, occupational or other important areas of function**

Living with “Emotional Shrapnel”: Injuries beyond the physical realm

- Psychological effects of the injury on self image and social role functioning
- Onset of social withdrawal
- High incidence of depression
- Substance Abuse as self-medication
- Core issues never addressed
- Emergence of psychiatric symptoms and risks such as suicide



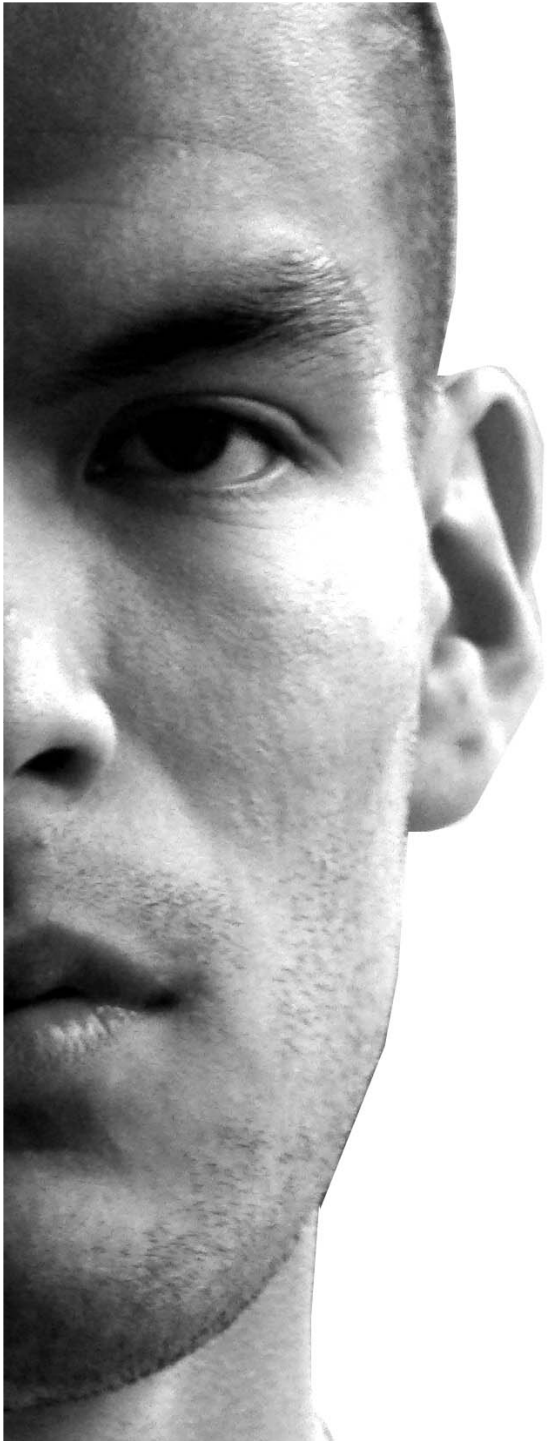
Veterans: An enhanced risk for disease processes

- Dementia
- Depression
- Stroke
- PTSD
- In Iraq/Afghanistan, Blast Injuries associated with polytrauma: 40% had TBI and 50% of the TBI cases had moderate to severe injuries/disabilities
- Multiple blast injuries are being identified as consistent with profile of multiple mild TBI's

(Plassman, B.L., Neurology, 2000, Plassman and Evans, 2nd Federal Traumatic Brain Injury Interagency Conference, 2006

- *Collins, Treatment of the Combat Injured, 2006)*





**“I noticed
after my injury
I started
getting real
mean, real
quick.”**

**Sam
Reyes, Jr.**



Anger Formation and PTSD

- The concept of “berserk rage”, out of control state in response to trauma event
- Feeling alone with wounds, both psychic and physical
- Indignant/angry that others won’t/don’t understand pain and loss

Source: Shay, 1995



Increased Risk for Substance Abuse

- Pre injury factors involving substance use/abuse
- Exacerbated or emerging use post injury
- Self-medication, response to depression, mood state changes
- Boredom, loss of life focus, withdrawal and exclusion
- Family difficulties
- Loss of peer group and social network

Source: NRIO Outcome Validation Study, 1993-2006



Caregiver and Individuals: Shared Issues

- Extended period of grievance (Mobile Mourning, Haffey and Muir, 1984) and response to lifestyle and functional changes
Partial Death Syndrome, Cree, 2003; Duff, 2002; Antonak, 1983
- Increased risk of violence as victim or perpetrator
- Increased rate of re-hospitalization for psychiatric problems and seizures
Cifu, 1999
- Social isolation and exclusion affecting both the individual and caregivers

**“They may
be **angry**
at us.”**

Rose Collins

Polytrauma Psychologist



Wartime TBI and long term issues

- Higher incidence of depression, PTSD and mental health problems
- Increased risk for Alzheimer's Disease and other dementias, CVA's
- Injury severity is a determinant
- Access to integrated treatment for all problems may be limited

