Military Combat Veterans and Post-Traumatic Stress Disorder

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What is Post Traumatic Stress Disorder?

- Posttraumatic stress disorder (PTSD) can occur after experiencing a traumatic event. A traumatic event is something terrible and scary that you see, hear about, or that happens to you, like:
- Combat exposure
- Child sexual or physical abuse
- Terrorist attack
- Sexual or physical assault
- Serious accidents, like a car wreck
- Natural disasters, like a fire, tornado, hurricane, flood, or earthquake

The trauma response can be evoked by a single large *"T"*raumatic Event *OR* by a series of small *"t"*raumatic events

STRESS ***CRISIS*** ***TRAUMA***

Factors Contributing to Varied Trauma Response

- **Multiple traumatic exposures**
- **History of mental illness**
- **Low Social Economic Status (SES)**
- **Intensity and Duration of Exposure**
- **Gender**
- **Age**

Severity of Event

Symptomatology/Impact/Aftermath

STRESS

An Accumulation of stressful events resulting in reduction of functioning.

Measurement: Life Change Units.

Progression to manifestation of psychosomatic illness as a result to severe stress.

Absence of criteria for PTSD or Acute Stress Disorder.

Post-Traumatic Stress Disorder

– Exposure to event of threatened death or serious injury to self or others.
– Reduction in awareness of surroundings.
– Dissociative amnesia.
– Flashbacks and Intrusive thoughts. / Traumatic event re-experienced.
– Impairment of occupational function (e.g.) Marked avoidance of environmental stimuli, triggering recall of the event.
***Duration of disturbance is more than 1 month. (distinguishing factor)**

Severity of Event
Symptomatology/Impact/Aftermath

Acute Stress Disorder	*Crisis*
– Exposure to event of threatened death or serious injury to self or others. – Reduction in awareness of surroundings. – Dissociative amnesia. – Flashbacks and Intrusive thoughts / Traumatic event re-experienced. – Impairment of occupational function. (e.g.) Marked avoidance of environmental stimuli, triggering recall of the event. *Disturbance last a maximum of 4 weeks. (distinguishing factor)	Acute disruption of the homeostatic balance of the individual. Failure of usual coping mechanisms Subjective reaction to a unpredictable stressful life experience that compromises t individuals stability and ability cope or function. Five components of Crisis: •Hazardous, stressful or traumatic event. •A vulnerable pre-crisis state. •A precipitating event •Deterioration/decompensatior of function •An active crisis state

Current DSM –IV Criteria PTSD

- Trauma Exposure: Outside normal range of human experience
- Reduction in awareness of surroundings.
- Dissociative amnesia.
- Re-experiencing the trauma:
  - Nightmares
  - Intrusive memories
  - Flashbacks
  - Distress when faced with triggers
- Impairment of occupational function. (e.g.)

6

PTSD Symptoms: Key Feature - Avoidance

- Avoidance of thoughts, feelings, people, places associated with the trauma
- Detachment – Numbing - Estrangement
- Some amnesia of trauma
- Foreshortened future
- Loss of interest in activities

7

PTSD Symptoms: Key Feature - Arousal

- Insomnia or broken sleep
- Irritability, Anger or Emotional Augmentation
- Problems concentrating
- Hypervigilance
- Exaggerated startle response

8

Changes in the DSM –V

- Event experienced by close relative/friend
- Do not need to feel fear – helplessness - horror
- Repeated exposure to distressing details of events of others (police officer, first responder.)
- Criterion D: negative thoughts, moods, or evaluations of self and/or world

How Does Trauma Manifest in the Veteran Population: The Physiological Mechanism of Trauma Response

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Chaplain (Major) James Sizemore
174 Air Defense Brigade Chaplain
Family Life Chaplain
Readjustment Counseling Therapist
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Case Example I (Basic Trauma) Continued

- Background
    - 32 year old married African American male
    - Married 8 years
    - 6 year old son and 4 year old daughter
    - 4 years active duty and 10 years in the Air National Guard
    - Deployed twice for Operation Iraqi Freedom and once for Operation Enduring Freedom

Case Example I (Basic Trauma)

- Symptoms:
  - Hyper-vigilance
  - Disrupted sleep
  - Anxiety in crowds
  - Anger
  - Aggression
  - Marital conflict
- Medications
  - Temazepam (sleep aid)
  - High blood pressure medications
  - Pain medications for back and shoulder injuries

Case Example I (Basic Trauma) Continued

- Manifestation of symptoms
  - After first deployment some sleep disturbances and anxiety (these faded)
  - Marital tension increased during second and third deployments
  - After his third deployment he had increased sleep disturbances, anxiety and hyper-vigilance
  - These symptoms impacted his mood and contributed interpersonal conflict

Case Example I (Basic Trauma) Continued

- Efforts to self manage
  - Avoids crowded environments (festivals, shopping centers, congested areas, etc.)
  - Limits interaction with other people
  - Installed a security alarm
  - Easy access to weapons

Case Example I (Basic Trauma) Continued

- Individual and family experience
  - Arguments with his wife
  - Wife feels isolated
  - Veteran is over-protective of his family
  - Veteran feels guilt because he doesn't go places with his family
  - Veteran profiles people
  - Veteran was referred to EAP because of his anger and aggression

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The Psychophysiology of Traumatic Memory

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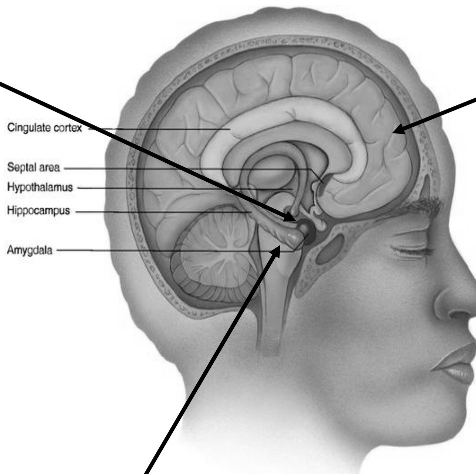
Amygdala* = Permanently encodes fear and triggers affective memories.



Cortex = "Hard drive" Storage of information

Hippocampus = "Keyboard"- input, access to affective information.

- Fanselow & Gale, 2003

The Formation of Traumatic Memories

Both the hippocampus and cortex have disproportionate numbers of glutamate receptors.

Glutamate is the most excitatory neurotransmitter.

Presynaptic Terminal

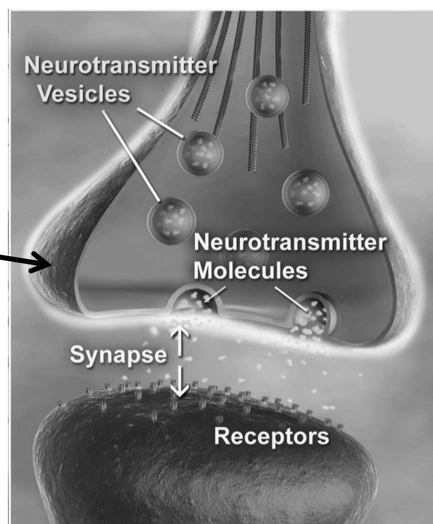
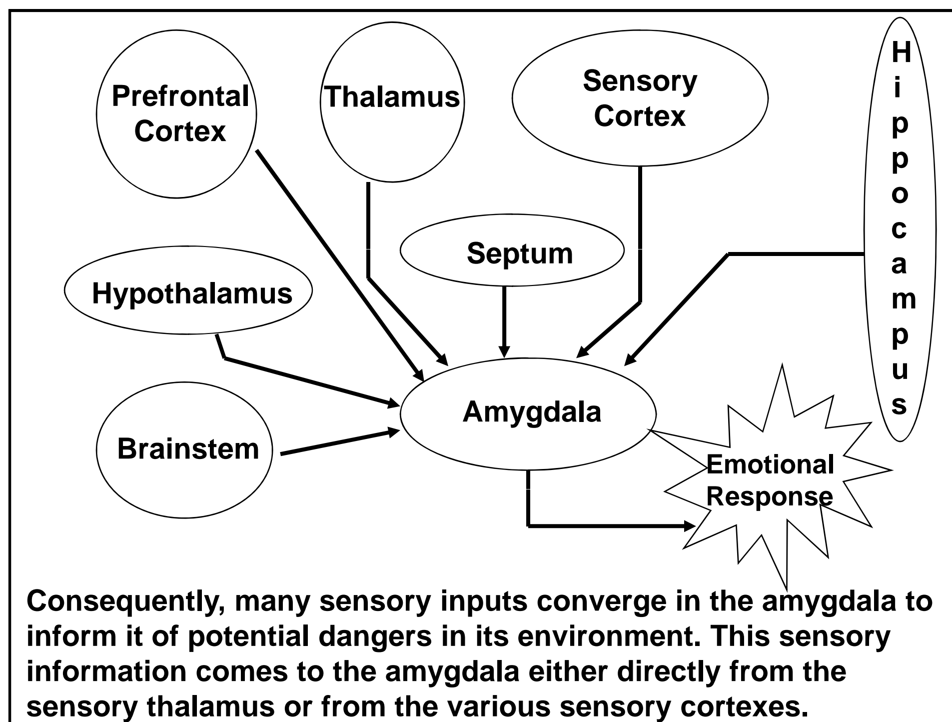


Image provided courtesy of National Institutes on Aging

Glutamate and Traumatic Memory

Glutamate receptors are different than typical receptors. They are:

- Non-linear: Incremental increases in glutamate do not trigger a receptor response. They respond to "thresholds" instead.
- When the synapse has had a sufficient number of excitatory experiences, it becomes persistently more excitable. It takes less and less of a signal to recall a memory.
- This is how stress hormones "strengthen" and "potentiate" traumatic memories.



Consequently, many sensory inputs converge in the amygdala to inform it of potential dangers in its environment. This sensory information comes to the amygdala either directly from the sensory thalamus or from the various sensory cortexes.

Trauma Treatment: A Clinical Perspective

23

Blocking Traumatic Memory

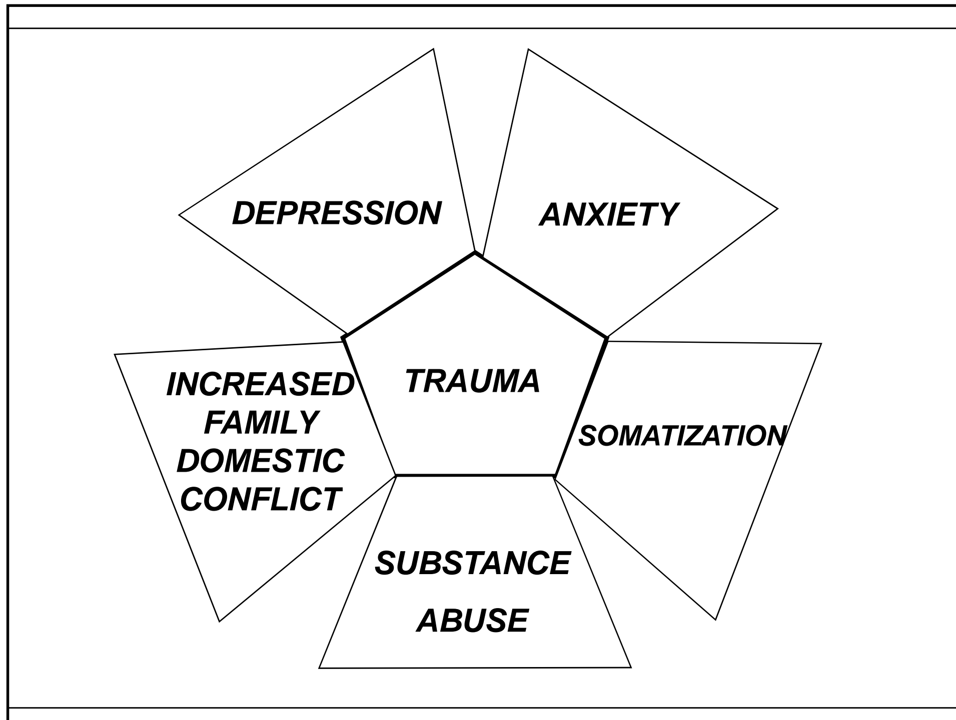
Together the amygdala, hippocampus, and cortex help form and reinforce a loop that ties traumatic memory to physiological arousal.

Further recollection of the event (naturally or in debriefing, etc.) may elevate arousal and further reinforce this loop.

Disrupting the loop by lowering physiological arousal can reduce the likelihood of PTSD and other emotional consequences.

Pitman, *et al*. demonstrated the use of propranolol, a Beta-blocker used to lower blood pressure in ”disrupting” the formation of traumatic memories.

The individual still had vivid recall of the event, but the medication broke the “loop” of a physiological response to the memory.



Patients who experience rapid unexplainable mood swings?

Concept:

Mood ⟶ Follows ⟶ Memory

- **All experiences / traumatic events are housed in the amygdala at a preconscious pre-set reaction level.**
- **Normal or day-to-day interactions can serve as stimuli to trigger a trauma based behavioral response**

Parrot Example…

Manifestation of Trauma in Veterans

- Avoidance of social situations
- Drinking or drug use
- Engage in risk taking behaviors
- Rapid unexplainable mood swings
- Lash out with no apparent trigger of catalyst
- Become isolative or introverted at certain times of the day or on certain occasions
- Experience night terrors

Patients who lash out with no apparent trigger of catalyst?

- Take the preconscious parrot analogy…
- Persons who come from “difficult” or “abusive” environments frequently assign distorted meaning to “normal” social cues or stimulus…
- Frequently the miss-assigned social cue leads to a protective (sometimes) violent response.

Patients who become isolative or introverted at certain times of the day or on certain occasions?

- Trauma responses can have their basis in certain life markers, e.g. birthdays, anniversaries, or other significant dates.
- Additionally, people tend to have higher trauma trigger times associated with pre-established life rituals. Bedtime, early morning, after school times can all be trigger events.

Patients who experience night terrors?

- It is not unusual for patients who have experienced trauma to re-experience the anxiety associated with the trauma event through dream sequences.
- Frequently, these dream sequences are not reflective of the actual trauma, but instead represent the anxiety and helplessness experienced as a result of the traumatic event.

Why Trauma Informed Care?

A large percentage of persons served in public and private Mental health and substance abuse systems have experienced Repeated trauma since childhood;

- they have been severely impacted by this trauma;
- Ignoring and neglecting to address trauma has huge implications for use of services and costs incurred
- Evidence exists for effectiveness of trauma-based integrated treatment approaches and emerging best practice models designed for (and providing renewed hope of) recovery to clients with complex, severe, and persistent mental health and addiction problems and
- These trauma –informed and trauma specific models are applicable and replicable within public and private sectors.

Trauma Informed Care Takes Into Consideration Concepts Of:

•Fight or Flight (Cannon, 1934)

•Mood Follows Memory (Haddy and Clover, 2001; McEwen, 1995; Chrousos and Gold; 1992)

•Physical and Mental well being inter-digitized concepts (Dohrenwend and Dohrenwend, 1974)

•Education is key to implementing change (Yeager & Roberts 2004)

•Success building best antidote for trauma.

Factors Influencing Response to Traumatic Events

On-going support
Opportunity to share their story
Sense of closure
Media exposure
Substance Abuse
Re-exposure or re-victimization

Factors Influencing Response to Traumatic Events

- Normalize feelings and reactions.
- Help define and prioritize needs.
- Help design strategies for addressing needs.
- Help to adapt coping skills.
- Prevent future mental health issues.

The Main Goal:
Empowerment- to countering feelings of fear and helplessness

Trauma Informed Interventions

- Supportive Communication
- Assisted Coping
- Screening and referral to higher level of care

Supportive Communication

Verbal & Non-verbal Communication Skills.

Active Listening & Responding.

Providing Supportive Feedback.

Knowing When to Refer.

-and more

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Case Example II (Complex Trauma)

- Symptoms
  - Hyper-vigilance
  - Disrupted sleep (nightmares)
  - High-anxiety in crowds
  - Anger
  - Aggression
  - Substance Abuse (alcohol and marijuana)
  - Intrusive thoughts
  - Household conflict
  - Obsessive Compulsive Traits

Case Example II (Complex Trauma) Cont.

- Medications
  - Temazepam (sleep aid)
  - Zolpidem
  - *Fluoxetine
  - *Prazosin (for nightmares)
  - Pain medications muscular-skeletal injuries

  * Indicates non-labeled use

Case Example II (Complex Trauma) Cont.

- Background
  - 30 year old Caucasian male
  - Divorced once and remarried
  - 10 year old son and 6 year old daughter
  - 4 years active duty (medically discharged)
  - Deployed once for Operation Iraqi Freedom and once for Operation Enduring Freedom

Case Example II (Complex Trauma) Cont.

- Precipitating Events
  - Participated in initial invasion of Iraq
    - Saw many dead enemy combatants
    - Saw his friend killed (provided initial first-aid)
    - Recovered body parts
    - Saw his platoon leader shot by a sniper
    - Under constant threat of attack
  - Afghanistan
    - Multiple small arms attacks
    - Improvised Explosive Devices
    - Wounded (lead to his discharge)
    - Didn't receive indirect fire support

Case Example II (Complex Trauma) Cont.

- Manifestation of symptoms
  - Hyper-vigilance
  - Increased alcohol usage and spice
  - Misuse of prescription medications
  - Nightmares
  - Intrusive thoughts
  - Increased anxiety
  - Marital conflict

Case Example II (Complex Trauma) Cont.

- Efforts to self manage
  - Avoids crowded environments (shopping centers, congested areas, restaurants, etc.)
  - Rarely drives his car
  - Obsessive-Compulsive Behaviors
  - Limits interaction with other people (isolates)
  - Is always engaged with a project
  - Alcohol and marijuana
  - Quick access to a weapon

Case Example II (Complex Trauma) Cont.

- Individual and family experience
  - Divorced once and remarried
  - Current wife abuses alcohol
  - Veteran and his immediate family are emotionally distant
  - Veteran is angry and involved in frequent arguments with family, friends and strangers

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Assisted Coping

Autogenic Breathing

Guided Relaxation Techniques

Managing Fear

Reducing Emotional and Physiological Reactivity

-and more

Autogenic Techniques

A German psychiatrist and neurologist, Johannes Schulz, was the first to describe these techniques in the early 20th century.

In simple terms, autogenic training is designed to reverse the "fight or flight" stress response with its release of epinephrine and norepinephrine in the body.

Autogenic techniques include:

-breathing exercises

-progressive muscle relaxation

-guided imagery

-others

Team Approaches to Trauma

- Eliminate practices that have the potential to re-traumatize.
- Collaborate in all aspects of treatment.
- Provide needed emotional and practical support to facilitate recovery.
- Maximize choice and consumer control.
- Emphasize consumer strengths.
- Acknowledge and respect role of culture.

Team Approaches to Trauma

- A paradigm shift in assessment, diagnosis and treatment that identifies trauma as the core event
- Wider use of trauma-related diagnoses
- Identification of trauma related skill deficits
  - Self-awareness
  - Self soothing
  - Accurate labeling

Team Approaches to Trauma

- Treatment to address trauma and the related skill deficits specifically.
- Appreciation of the impact trauma dynamics have on all relationships:
  - Betrayal
  - Power
  - Blame
  - Trust

Team Approaches to Trauma

- Assess the needs and values of the individual and the staff working with the patient.
- Assesses the resources available to the individual and to staff.
- Assess the potential strengths resilience factors.
- Consider staging interventions including all staff in interventional processes.

Factors for Building Resilience

- Work to build and maintain a positive view of yourself
- Build and maintain positive connections with families and friends
- Remain flexible, change is a part of living
- Reframe the negatives into positives
- Maintain realistic expectations
- Act when you can and accept when you can not
- Take care of your physical, emotional and spiritual wellbeing
- Give to others and your community