Applying Therapeutic Principles to Equine-Assisted Therapy in Military Veterans with PTSD

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Overview

- Understanding Invisible Wounds of War
- Understanding Military / Veteran Culture
- Principles of Treatment/Education
- Effective Treatments
  - PTSD
  - Postconcussive Symptoms
- Applications of Psychological and Educational Principles to Equine-Assisted Therapy for Military Veterans
- Discussion
Invisible Wounds of War

PTSD  TBI  Pain  SUD  Depression  Numbing
Combat is often the most intense experience of one’s life!
What is Normal and Natural?

- Adaptive During Combat:
  - Hyper-vigilant
  - Hyper-arousal
  - Giving and taking orders
  - Seeing the world as black and white
  - Irregular hours
  - Unpredictable hours/missions
  - Intense bonding with buddies
  - Everything you do matters in terms of life and death

- Adaptive after returning:
  - Be absorbed in what one is doing
  - Be calm and comfortable
  - Listen to and respect to others’ opinions
  - Regular, predictable lifestyle
  - Casual contact with friends
  - Work and quality of life are balanced

Warfighters are expected to make this change within days
What is normal and natural

Initially, it is expected that postdeployment one will experience:

- Difficulty sleeping (falling asleep, nightmares, etc)
- Hypervigilance of one’s surroundings
- Hyperarousal physically
- Emotionally irritable
- Behaviorally and interpersonally “brusk”, short-tempered with others
- Energetically drained
- Existentially mature – putting life into perspective

These should subside over the course of several months
When symptoms persist or get worse

- Post-traumatic Stress Disorder
- Depression
- Persistent Postconcussive Symptoms
- Substance Abuse
- Severe Insomnia
- Pain and Disability
- Anger
- Relationship Dysfunction

Sometimes symptoms emerge after many months of returning home
Post-traumatic Stress Disorder (PTSD)

- Caused by Exposure to:
  - actual or threatened death
  - serious injury
  - sexual violence

- By Someone:
  - directly experiencing the traumatic event
  - witnessing the event occurring to others
  - learning the event occurred to a loved one or close friend
  - repeated exposure to details of a traumatic event (first responders, interviewers, therapists)
PTSD symptoms manifest in four clusters:

1. **INTRUSIVE SYMPTOMS**: Persistent re-experiencing, such as recurrent thoughts, nightmares, and flashbacks.

2. **AVOIDANCE**: Persistent avoidance of trauma-associated stimuli, avoiding related internal thoughts & feelings and external reminders such as objects, conversations, or places.

3. **NEGATIVE THOUGHTS/FEELINGS**: Amnesia for parts of the event, negative thoughts about self/others/world/future, depressed mood, irrational thoughts of blame or guilt.

4. **HYPERAROUSAL**: Hypervigilance, an exaggerated startle response, or difficulty in concentrating, trouble sleeping.
PTSD

- Those symptoms must persist for at least a month and cause clinically significant distress or functional impairment.

- PTSD is unique among psychiatric disorders in that it is linked to a specific trigger—a traumatic event—such as combat, natural and accidental disasters, and victimization and abuse.

- Recent estimates of the prevalence of PTSD in 2.6 million U.S. service members who have served in Iraq or Afghanistan since 2001 (including those who are currently there and 900,000 of whom have been deployed more than once) range from 13% to 20% or more depending upon combat exposure and number of deployments.
Quality of Life for those with PTSD

- Quality of Life is rated about the same as cancer patients undergoing treatment
- About 7% of the US civilian population will develop PTSD in their lifetime, most often due to sexual assault, physical assault, MVA, or disaster
- 17% of Vietnam/OEF/OIF combat veterans develop PTSD
- 30% with 3+ combat exposed deployments develop PTSD
- Less than 1/3 may experience remission within two years
Known risk factors for PTSD in military populations include:

Prior to deployment:
- prior mental health diagnosis, prior abuse, female, younger

During deployment:
- experiencing unpredictable and uncontrollable stressful exposure - experiencing combat, especially firefights or IEDs
- being wounded or injured,
- witnessing death,
- serving on graves registration duty or handling remains,
- being taken captive or tortured
- experiencing sexual harassment or assault.
- poor unit cohesion; assigned to a different unit than one belongs

Longer deployments, multiple deployments, and greater time away from base camp are associated with higher rates of PTSD and depression
Protective factors for PTSD include good leadership, unit support, and training; healthy lifestyle and active positive coping (vs passive or avoidant coping style), supportive relationships (spouse, community).

During 2010, 438,091 veterans were treated for PTSD in the VA medical system. This is expected to grow yearly.
Good treatment for PTSD exists:

- 70% of those who complete a treatment that has been proven to be effective (Evidence-based Treatment) improve significantly
- Most mental health providers in the DOD and VA have been trained in an evidence-based therapy
- Clinics are available in rural areas as well, and we are beginning to implement video-telehealth into the home of the veteran for those who have difficulty going to a clinic.

VA Resources:

- The VA has specialized treatment programs that focus exclusively on PTSD. Many PTSD-related services are also offered in medical settings, including primary care.
- The VA also supports Vet Centers (based in the community) that are staffed with social workers, clinical psychologists, mental health counselors, and professionally trained counselors and therapists.
PTSD

• Although good treatments exist for PTSD and other wounds of war:
  
  • Only 53% of returning troops who met criteria for PTSD or major depression sought help from a provider in the past year.
  
  • For those reporting a probably TBI, 57% had not been evaluated by a physician for a brain injury.
  
  • Clergy and other counselors represent the first contact for as many as 25% of veterans with mental health concerns.
Feeling down, emotionally and energetically, most everyday for at least several weeks
  - not due to a loss or specific stress within the recent past (normal grieving or stress)
Typically: Loss of interest, lack of appetite, gaining or losing weight, sleeping a lot more or less, disengaging from loved ones, loss of libido, sad or numb; low self-esteem, thinking others don’t care, hopeless future
In Veterans: Depression can manifest as anger and irritability, externalizing blame
More than 70% of those who complete evidence-based treatment reduce their symptoms significantly, and about half no longer meet criterion for PTSD – within 5-6 weeks.

Meta-analyses of dozens of well conducted studies show that PTSD-specific therapies outperform other supportive therapies by a factor of 2:1 (Bradley, 2005; Gerger, 2014).

Effective Therapies include:
- Cognitive Therapies (CPT, SIT, CBT)
- Exposure Therapies (PE, EMDR, VR)

Less Effective Therapies include:
- Medication (anti-depressants; sleep; anxiety)
- Supportive Therapies (support groups; supportive therapy)
- Stress-Reducing approaches (meditation, yoga, hypnosis)
Treatment for PTSD

- Nevertheless:
  - Half of all patients that start therapy drop out or don’t get better
  - Half of all veterans do not seek therapy to begin with
  - Most veterans continue to have some symptoms
  - Not all veteran symptoms are addressed directly by PTSD treatment
    - Relationships, anger, emotional numbing, insomnia, pain
    - Existential considerations: self-identity, goals, etc
  - Therefore, we need additional approaches to help:
    - Entice veterans to seek treatment
    - Support them in areas not otherwise addressed in treatment
    - Offer approaches to veterans who won’t seek psychotherapy to talk about their problems

Experiential, skill-based approaches are ideal for this
Cognitive Therapies
tailored specifically for PTSD

- Normalize the process of developing PTSD
- Focus on how the person is doing in the moment with some discussion of past events if it informs the present:
  - What beliefs does one have about themselves, others, the world
  - How did the trauma create or reinforce these beliefs
    - How did the belief help them then / now?
    - How do these beliefs interfere with them then / now?
- Challenge beliefs that stem from trauma and interfere with living for fully and with freer choice
- Help person develop more realistic and positive beliefs about themselves, others, the world
Exposure therapies
- specifically geared toward PTSD

PTSD stems from associating negative emotions with the trauma-related events.

The brain keeps thinking about the event since it perceives it as an emergency, but it was too much to deal with, so one continues to avoid dealing with it.

Avoidance perpetuates the PTSD.

Directly addressing the past traumatic event and current avoidant behaviors satisfies the brain that the emergency is over.

- Directly address the event in detail and real-time
- Confront situations previously avoided
Death Ratio:
- 2.7 to 1 for Vietnam
- 16.0 to 1 for OIF/OEF

Due to advances in:
- Helmet technology
- Medic training
- Quick evacuation

This means more who survive to have TBI, PTSD, and chronic pain.
Approximately 20% (hundreds of thousands) of warfighters have experienced concussion. Most appear to recover within a few days. Some complain of persistent post-concussive symptoms. Many complaints appear to be attributable to PTSD or depression, but many have persistent problems independent of PTSD or depression. Concussion may predispose patients to mental health problems, exacerbate them, and interfere with treatment.
<table>
<thead>
<tr>
<th>TBI Criteria</th>
<th>Mild (CONCUSSION)</th>
<th>Moderate</th>
<th>Severe</th>
</tr>
</thead>
<tbody>
<tr>
<td>Structural Imaging</td>
<td>Normal</td>
<td>Normal or Abnormal</td>
<td>Normal or Abnormal</td>
</tr>
<tr>
<td>Loss of Consciousness</td>
<td>0 - 30 minutes</td>
<td>&gt;30 and &lt; 24 hrs</td>
<td>&gt;24 hours</td>
</tr>
<tr>
<td>Alteration of Mental Status</td>
<td>A moment up to 24 hours (dazed, confused, disoriented)</td>
<td>&gt;1 and &lt; 7 days</td>
<td>&gt; 7 days</td>
</tr>
<tr>
<td>Post-traumatic amnesia</td>
<td>0 - 1 day</td>
<td>&lt;1 and &gt; 7 days</td>
<td>&gt; 7 days</td>
</tr>
<tr>
<td>Glasgow Coma Scale (1st 24 hrs)</td>
<td>13-15</td>
<td>9-12</td>
<td>&lt;9</td>
</tr>
</tbody>
</table>
# Post-Concussive Syndrome

<table>
<thead>
<tr>
<th>Somatic Symptoms</th>
<th>Psychological Symptoms</th>
<th>Cognitive Symptoms</th>
</tr>
</thead>
<tbody>
<tr>
<td>Headache</td>
<td>o Problems controlling emotions</td>
<td>o Problems with:</td>
</tr>
<tr>
<td>o Fatigue</td>
<td>o Irritability</td>
<td>- Memory</td>
</tr>
<tr>
<td>o Sensitivity to light/noise</td>
<td>o Anxiety</td>
<td>- Concentration</td>
</tr>
<tr>
<td>o Insomnia &amp; sleep disturbances</td>
<td>o Depression</td>
<td>- Multi-tasking</td>
</tr>
<tr>
<td>o Drowsiness</td>
<td>o Changeable mood</td>
<td>- Sustained effort</td>
</tr>
<tr>
<td>o Dizziness</td>
<td></td>
<td>- Slowed comprehension</td>
</tr>
<tr>
<td>o Nausea &amp; vomiting</td>
<td></td>
<td>- Worse speed and accuracy</td>
</tr>
<tr>
<td>o Vision problems</td>
<td></td>
<td>- Less self-reflection</td>
</tr>
<tr>
<td>o o Balance problems</td>
<td></td>
<td>o Functional status limitations</td>
</tr>
</tbody>
</table>
Treatment for Postconcussive Symptoms includes:

- Education of patient and family
- Rest and relaxation initially, but then progressive mental exercises to retrain the brain
- Treatment of comorbid conditions, such as PTSD, depression, insomnia, and pain

DOD and VA medical centers have specialized programs for Cognitive Rehabilitation for postconcussive disorders
Cognitive Rehabilitation

- Psychoeducation:
  - Normalize
  - Educate about expected process
  - Involve family members
- Retrain the brain
  - Get used to making cognitive effort
  - Learn to rest and recuperate as needed
  - Practice focus, abstraction, multistep process (a->b->c)
- Use supportive devices for planning and organization
  - Smart phones for calendar, tasks, lists, maps
Chronic pain makes everything more difficult:
- Sleep
- Focus and concentration
- Mood
- Work/keeping occupied

Pain Drugs make these worse as well

Co-occurring pain makes worse:
- PTSD symptoms and recovery
- Depression symptoms and recovery
- TBI symptoms and recovery
Combat veterans:
- PTSD 15-30% depending upon number of deployments & exposure
- 20% PTSD/mTBI (RAND, 2008)
- 38% PTSD&Pain (Clark, 2008)
- 66% PTSD&Pain (Shipherd, 2007)
Civilian vs Combat-related PTSD
Civilian PTSD:

Typically:
- Caused by a single incident
  - Sexual or physical assault
  - MVA
  - Natural disaster
- Chronic long-term distress
  - Chronic abuse
  - Raised in a war zone
- Typical onset soon after index trauma
- Most often female victims
- Represent a full range of SES, IQ, personality styles
- Most often stays within one’s typical environment (sometimes work or home), with one’s usual support
- Onset of symptoms is often immediate for within a month
**Civilian PTSD**

- **Treatment:** Some evidence of improvement for at least 70% of patients who complete a course of therapy
  - Medication:
    - SSRI (anxiety symptoms); Prazosin (nightmares);
  - Psychotherapy
    - Exposure Therapies (PE-Prolonged Exposure; EMDR)
    - Cognitive Behavior Therapies (CPT- Cognitive Processing Therapy, SIT-Stress Inoculation Therapy)

- Most patients with PTSD do not get better without help, and symptoms can last for years causing worsening quality of life for them and their loved ones
Combat Veteran PTSD:

Typically:

- Caused by one or more incidents across one or multiple highly stressful deployments
- Most often male; although about 15% of those deployed are female, and females are more sensitive to lower levels of combat stress than are males; also deployed females are more prone to military sexual trauma than males
- Typically most often middle class, concrete/action-oriented cognitive style.
- More often involve polytrauma: PTSD, pain, PPCSx, ETOH
- Can be compounded if a Hx of chronic long-term distress
- Index event(s) usually occur away from one’s home environment, and one often returns home without the support one had from one’s peers
- Onset is frequently delayed 3-9 months
Combat PTSD

- Treatment: Issues
- Barriers to Care:
  - Difficulty convincing to enter treatment due to perceived stigma (co-workers, friends, family, self).
  - High drop out rates (AD/Vets; PTSD; Exposure Tx)
- Promising Approaches:
  - Novel approaches consistent with military training and utilizing principles like self-help skill-based approaches are showing some promise (SIT-VR)
  - VideoTeleHealth to remote areas also showing promise
Patients might not seek care because of

- concerns about the effects of seeking PTSD treatment on employment or
- military career, a perception that mental health care is ineffective,
- a lack of information on resources for care, financial concerns, and logistical problems, such as travel distance.
- logistical difficulty in getting to appointments (for example, getting to a mental health provider in a combat zone for service members or getting to a specialized VA PTSD clinic for a veteran living in a rural area).
For providers, barriers to treating patients with PTSD might include
• lack of training, lack of time, and treatment
• location issues, such as transportation in the theater of war.

At the organizational level, barriers can include
• the treatment setting (for example limited treatment opportunities in combat zones),
• restrictions on when and where pharmacotherapy for PTSD can be used
Military Culture

- Many come from lower SES or did not do well in school.
- Many come from rough childhoods (abuse is common)
- Military offers a chance to improve themselves through academic, interpersonal, and experiential skill development
- Service members learn to focus on function (mission focused, do whatever needs to be done, and soon)
- Linear command structure, taking and giving orders
- Emphasis is on concrete action, skill-development, self-improvement
Military Culture

- Junior Enlisted (Private/Seaman/CRPL, Airman, PO)
  - Do grunt work, taking orders (ages 18-21)
- Senior Enlisted (Sergeants, Chiefs)
  - Management, implementing orders (ages 25-40)
- Junior Officers (Lt, Capt/Ens, LT)
  - Manages senior enlisted (ages 22-28)
- Senior Officers (LTC, COL, CDR, CAPT)
  - Leadership of specific types of work (ages 38-47)
- Flag Rank (Generals, Admirals)
  - Determine and oversee policy and overall mission
Military Culture

- Army – largest service
- Navy – mid-size force
- Air Force – mid-size force
- Marines – smallest force

- All services have:
  - Warfighters (e.g. infantry; artillery, pilots, etc)
  - Support services (logistics, supplies, transportation, etc)
  - Special Operations (SEALs, Green Beret, MARSOC, etc)
  - Medical (corpsman, medics, nurses, doctors, psych)
- All Service Members have a rank and rate (MOS)
Military Culture

- **Era**
  - **Vietnam (60s)**
    - Combat (direct exposure)
    - Support (non-combat)
  - **“Peacetime” (70s/80s/90s)**
    - Yet smaller conflicts were conducted
      - Panama, Grenada, Somalia, 1st Gulf War
  - **OEF/OIF/OND (1999-2014)**
    - Operation Enduring Freedom (Afghanistan)
    - Operation Iraqi Freedom (Iraq)
    - Operation New Dawn (after 2010 – drawdown)
Military Culture

- Important to get rapport:
  - Era
  - Service
  - Highest rank
  - Rate
  - How long they served

- What did they like about their service
- What didn’t they like about their service

- Notice to what extent they continue to identify as a vet
Military Culture

- Presentation style is often:
  - Stoic
  - Worried about stigma
  - Angry (system, world, others)
  - Withdrawn / Avoidant
  - Emotionally numb
  - Self-medicating
Military Culture

• Treatment in Veterans
  • Often responds well to skill-based approaches
  • More concrete and straight-forward explanations and activities (rather than new-age or feeling-oriented, at least initially)
  • Connect with personal motivation
    • Rather than “my wife wants me to do this”
    • Listen to negative problems, but elicit positive goals
  • Address passive receipt of benefits (VBA) vs self-reliance and determination
    • i.e. getting a job
Educational Principles

- Skill-based
- Experiential
- Contextual
- Interactive
- Immediate Feedback
- Teach Fundamentals
  - Skills or principles that can be learned and applied to a variety of situations
- Teach at Threshold
  - Challenging, but able to overcome successfully with moderate effort
- Multi-modal learning
Therapeutic Principles

- Utilize the above educational principles, plus, help the client:
  - Establish personal motivation
  - Establish concrete negative problems and positive goals
  - Express verbally in personal, specific, concrete, and emotional terms
  - Understand in terms of interpersonal relationships
  - Understanding pattern that contributes to problems
    - How was it formed, what does it help, how is it limiting?
  - Learn new skills that help to overcome pattern contributing to problem (and help other issues as well, if possible)
Therapeutic Principles

- Practice implementing new skill in isolation at the threshold best able to learn and understand
- Practice implementing new skill in context of where they notice the problem in their lives at the step best able to utilize successfully, but with some effort
- Solicit feedback about use in real world
- Identify external and internal obstacles that may sabotage these skills’ implementation (session/life)
- Identify ways to overcome these obstacles and rehearse their utilization
Applications of Principles to Equine-Assisted Therapy for Veterans with PTSD

Non-Riding

- **Becoming a member of the herd (non-riding)**
  - Joining without any intention – simply joining with
  - Leading the herd
  - Caring for the herd (feeding, cleaning, grooming)
    - Confidence; relationship; empathy, caring, feeling

- **Interacting with a single animal (non-riding)**
  - Alone or learning to interact with a partner (directing, following directions, working together non-verbally with the partner) for various missions:
    - guiding, halter/saddling, grooming, caring for
    - Confidence, relationship, empathy
Applications of Principles to Equine-Assisted Therapy for Veterans with PTSD

Riding

• Interacting with the animal respectfully, lovingly

• Balance, focus, for veterans with postconcussive symptoms (wear a helmet!).

• Mobilizing into action

• Working with others in group rides
Applications of Principles to Equine-Assisted Therapy for Veterans with PTSD

- Discussion before and after the animal interactions:
  - **Preparation:**
    - Clearly state the mission objectives in concrete and positive terms (what they will do, and hopefully achieve)
  - **During:**
    - Challenge them at the threshold they can manage, with effort but success
  - **Debrief:**
    - Hearing from them about their experience
    - Asking them questions to draw out their experience according to the specific goals of the session
    - Ask how they can integrate the experience into their lives
  - **Homework**
    - Diary about experience and how it relates to daily life
    - How can they attempt the same type of interaction with humans
Examples of Integrating Educational and Therapeutic Principles into Equine Assisted Therapy for Veterans with PTSD

- Examples of Equine assisted treatment
  - Herd
  - Individual
  - Riding
  - Partner
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