Healing Spaces: Veterans, Nature Therapy, and Public Lands

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Public lands and human health

- Public lands provide a wide array of benefits to people.
- Scientists recognize the importance of nature-connection and outdoor recreation for human health.
- How can agencies work with partners to expand the health benefits of nature to people who need it most?
There are more than 21 million Veterans in the U.S.

According to the U.S. Veterans Administration, 16% of combat veterans experience PTSD immediately upon return to civilian life. Others have late onset PTSD (6+ months later).

An estimated 35% of combat veterans with PTSD seek treatment within 1 year (Cully et al. 2008)

Each day, 22 combat Veterans commit suicide (Kemp & Bassarte 2013)
**What is PTSD?**

PTSD is characterized by the re-experiencing of a traumatic event accompanied by symptoms of increased arousal, avoidance of trauma-related stimuli, and the negative alterations in cognition and mood beginning with or worsening after the traumatic event. (APA 2013)

**Symptoms**
- Flashbacks & nightmares
- Avoidance of triggers
- Hyper alert
- Negativity
- Aggression
- Problems concentrating
- Sleep disorders

**Effects**
- Health problems
- Missed work
- Physical symptoms of pain
- Alcohol and drug use
- Social & family problems
- Intimacy
Recognized PTSD Treatment Options

1. Pharmacotherapy - medication
2. Psychotherapy (behavioral, cognitive)
3. Non-trauma treatment (mindfulness, EMDR)
4. Complementary and Alternative Medicine (CAM)
   - Yoga
   - Acupuncture
   - Herbs
   - Nature-based therapy

Half of Veterans experiencing PTSD symptoms do not receive treatment or drop out of treatment.

- Mistrust of VA
- Long wait periods
- Stigma
- Being treated for other more pressing issues
- Cost & coverage
Nature-based Therapy (NBT)

**Historical Highlights**
- 19th century “camp cures” - treat the ills & stresses of the city
- WWI - horticultural treatments for ‘shell shock’ in U.K.
- WWII - Earl Shaffer - first AT thru-hiking “Walking off the War.”
- Outward Bound - Veterans Programs - 1980s

**Experiences and activities in a natural setting specifically designed to support the PTSD treatment process.**
- Wilderness experience programs
- Wilderness therapy
- Horticultural therapy
- Eco-therapy
- Adventure therapy
- Outdoor behavioral health care
Nature connection and outdoor recreation have positive health benefits.

- Nature exposure has positive psychological benefits (Ryan et al. 2010)
- Walking outdoors can lead to reduced frustration, reduced arousal (hyper-alertness), and an increase in presence (Aspinall et al. 2013)
- Nature connection is associated with greater life satisfaction and a positive outlook (Mayer & Frantz 2004)
- Nature connection is associated with improved social connections, mindfulness, and a sense of purpose (Howell et al. 2011)
- Moderate exercise is associated with decreased symptoms of anxiety and depression (Conn 2010)

These findings show promise for the success of NBT for PTSD
Sample Studies on NBT for Veterans

- Veterans on 9-day Mt. Kilimanjaro expedition experienced an increase in self-determination, active coping skills, and social support (Burke & Utley 2013)

- Veterans on a 4-day kayak expedition experienced a decrease in hyper arousal, increased ability for reflection, and a positive mood (Dustin et al. 2011)

- Veterans with PTSD on a 5-day Outward Bound course experienced increased confidence, joy, more control over emotions, and better social relationships (Hyer et al. 1996)

- Veterans hiking the Appalachian Trail described improved social connection, feeling motivated, inner peace, and reflection (Dietrich et al. 2015)

- Veterans on 4-7 day Sierra Club program showed improved attention, positive mood, better social relations, and sense of peace. (Duval and Kaplan 2013)
The purpose of this study is to understand:

- Uses of public lands for treatment of Veterans with PTSD
- Experiences provided by NBT providers and benefits to Veterans
- Challenges and opportunities faced by NBT providers using public lands
- Management implications of the expanded use of public lands for nature-based therapy

**Methods**

- Semi-structured interviews (36) with NBT providers, land managers, NGOs, health professionals, and Veterans.
- Interviews were coded thematically.
- Web searches produced database of 80 outdoor programs for Veterans.

**Preliminary findings.**
Dimensions of Outdoor Veteran Programs

Group size
- Solo
- Small Group
- Large Group

Social environment
- Solitude
- Loose structure
- Group mission

Group composition
- Solo
- Gender-based
- Trauma type
- Veteran groups

Activity type
- Passive
- Moderate
- Extreme

Duration
- Short (1-3 days)
- Medium (4-14 days)
- Long (15+ days)

Degree of mediation
- None
- Facilitated
- Guided
- Agency led (with partner)

Therapeutic component
- Not explicit
- Informal sharing
- Group therapy
- Individual & group therapy
<table>
<thead>
<tr>
<th>Type</th>
<th>Explanation</th>
</tr>
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<tbody>
<tr>
<td>Solo</td>
<td>Individuals seeking nature immersion, solitude, or wilderness</td>
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<tr>
<td>Guided outdoor activity</td>
<td>Active outdoor experience with guide (e.g., rafting, kayaking, hiking, fly-fishing). May be day trips, weekend trips, or up to 2 weeks.</td>
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<tr>
<td>Mission-oriented adventure</td>
<td>Distance thru-hiking; mountain ascent; canoe journey. May be guided or facilitated or self-led. Often longer trips (multiple weeks).</td>
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<tr>
<td>Wilderness therapy</td>
<td>Therapy emphasis. Either therapist-led or includes group therapy component. Varies in length and activity.</td>
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<tr>
<td>Outdoor works</td>
<td>Job training programs, such as Veterans Works. Goal is employment skills, training, building competence, being outdoors.</td>
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<tr>
<td>Nature immersion</td>
<td>Emphasis on nature connection, spirituality, or cultural connection. Being out in nature is more important than the activity</td>
</tr>
<tr>
<td>Retreat</td>
<td>Relaxing and being outdoors in resort or retreat environment with focus on recuperation, restoration, enjoyment. Socializing.</td>
</tr>
<tr>
<td>Element</td>
<td>Description</td>
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<tr>
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<td>------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Mission</td>
<td>Common goal, adventure, struggle, adrenaline</td>
</tr>
<tr>
<td>Physical Activity</td>
<td>Movement, exercise, increased heart-rate</td>
</tr>
<tr>
<td>Nature</td>
<td>Plants, wildlife, terrain, views</td>
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<tr>
<td>Team</td>
<td>Feeling of camaraderie, achieving a common goal</td>
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<tr>
<td>Escape</td>
<td>Get away from everyday life; alternate space (time to think)</td>
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<tr>
<td>Service</td>
<td>Giving back; what we fought to protect</td>
</tr>
<tr>
<td>Skills</td>
<td>Developing new skills: outdoor activity, leadership, job skills</td>
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Program benefits

- Helping combat Veterans with re-entry to civilian life – getting them over the 6 month hump
- Building skills & foundations to help them move on to the next phase
- Forming enduring bonds with other Veterans
- Creating life-long interest, comfort & competence in being outdoors
- Providing opportunities for stewardship and service
Challenges for providers

- Ongoing capacity challenges - funding, staffing, gear, insurance
- Making connections with public agencies - who to talk to?
- Navigating lands permitting process - across multiple jurisdictions & agencies (especially for long-distance trails)
- Bias in some agencies against large groups & media attention
- Recruitment - making sure participants are ready - body & mind
- Risk management
- Managing media attention - impact on Veterans (too much?)
- Follow-up - how are the Veterans doing 6 months later? 1 year later?
- Accessibility - how accessible are these experiences?

“This is no magic bullet. We are trying to extend their life by a few months and give them time to heal. It’s one tool in the toolkit for when they come home.”
Trends in Veterans Outdoor Programs

- Finding ways to make trips more accessible to more people
- Improvements in the screening process to hedge against unexpected challenges
- Risk management - recognizing symptoms during the trip
- Attention to dosage, duration, frequency of trips and the lasting benefits. Recognition of the sweet spot: “5 days/4 nights” outdoors.
- Focus on what happens once Veterans come home – building social networks and encouraging ongoing outdoor connection & stewardship
- Advocating for more research (role of nature) leading to “Nature Rx”
Implications for Public Land Managers

- Organizational capacity – meeting demands of so many programs and goals with declining budgets and staff – “We should be doing this!”
- Need for improved agency awareness of public health role and potential to benefit special populations – “This should be part of our mission.”
- Organizational culture – agencies not always oriented to thinking about large groups (bias toward solo/small groups seeking backcountry, solitude)
- Customer service – knowing who to contact and how to get answers
- Permitting process – need for improved communication of regulations and processes
- Establishing special authorities – consider ways to cater to Veterans groups using special authorities and agreements/partnerships that would reduce need for permits
- Search & rescue – need for communication with agencies to make them aware of itineraries
Possible Roles of Public Land Management Agencies

- Identify geographic areas where Veteran outdoor programs are lacking – reach out to local partners to start conversation
- Identify sub-groups not being served by existing Veterans outdoor programs – work with partners to identify new opportunities
- Communicate current agency events & programs to Veterans organizations (e.g., snow-shoe hikes, orienteering, nature programs)
- Encourage major partners to engage Veterans in stewardship efforts
- Acknowledge outfitters/guides providing special trips for Veterans
- Work with Veteran outdoor skills/job training programs to recruit employees
- Work with Veteran outdoor providers to encourage Leave No Trace ethics
- Consider establishing designated use areas – “therapeutic forests”
Partnering Opportunities

- Veterans Admin. (VA)
- Department of Defense
- Public lands (Fed/State)
- Public health
- Outdoor industry
- Trail Conservancies
- Leadership schools
- Conservation orgs.
- Medical community
- Veteran Orgs (VFW)
- Universities
- Tribes
“...The work that we’re doing touches people in so many different ways. Often times I think when people think of long-distance trail they think about the benefits of the environment from those trails, the conservation benefits. But the impact on people’s lives is incredibly meaningful. That’s, just a reminder that yes, this is about protecting places like the [national scenic] Trail is also about the impact it has on people’s lives.”

-- Trail administrator for a national scenic trail
Future Questions

- What are the short and long-term benefits of outdoor programs for Veterans? How can these be measured?
- What is the future role of land management agencies? What are the benefits of facilitating greater access to public lands for Veterans?
- What are the links between Veteran outdoor programs and future stewardship of public lands?
- How do outdoor programs serving Veterans also serve communities?
- How can we ensure that all Veterans have access to the outdoors? (gender, geography, ability, race)
Thank you!

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