2016 Defense Centers of Excellence for Psychological Health and Traumatic Brain Injury (DCoE) Summit

September 13 - 15, 2016
Jeff Frankart, P.T.

Jeff Frankart is currently a Major in the Army Reserves. He has treated more than 50,000 patients during his 19 year career as a military and civilian physical therapist. He is currently the chief of Physical Therapy for the Interdisciplinary Pain Management Center at the Landstuhl Regional Medical Center, the U.S. Army trauma center in Landstuhl. While stationed in Turkey in direct support of combat operations in Iraq and Afghanistan from 2002 to 2004, he was both the hospital executive officer and officer in charge of Physical Medicine providing care for more than 9,000 local U.S. military, NATO Department of Defense civilian personnel, and 62,000 combat troops in Northern Iraq. He has developed the Functional Movement Recovery Program platform currently in use at Landstuhl Regional Medical Center.
Dr. Kendra Jorgensen-Wagers is the senior clinical research director and deputy site director for Landstuhl Regional Medical Center TBI Program. Dr. Jorgensen-Wagers graduated in 2008 with a Doctor of Philosophy in Rehabilitation Counseling. She is also an assistant collegiate professor at the University of Maryland University College. She has over twenty five years of experience helping individuals who have experienced illness or injury, specifically psychiatric disabilities and traumatic brain injury. Her areas of research interest are in rehabilitation outcomes and salutogenesis. In addition to her extensive clinical skills, she has taught for many years in the fields of counseling and social work and believes firmly in empowering individuals to realize their full potential and enhance their quality of life.
Sarah McNary, R.N., M.S.N. is the U.S. Special Operations Command Care Coalition lead TBI nurse case manager at Landstuhl Regional Medical Center responsible for providing TBI screening and coordination of care for Special Operations Forces (SOF) serving in the European footprint. She received her Master of Science in Nursing from Massachusetts General Hospital Institute of Health Professions in Boston, Massachusetts. She served formerly as the Lead TBI Nurse Case Manager for the Traumatic Brain Injury Clinic at Landstuhl Regional Medical Center and as the Lead TBI Nurse Case Manager at Schweinfurt Army Health Clinic. Her areas of interest are increased patient engagement amongst Special Operators via nurse case management and development of SOF specific TBI tools and interventions.
Jeffrey M. Tiede, M.D. is currently a LTC in the Army Reserves and is the director of the Interdisciplinary Pain Management Center at Landstuhl Regional Medical Center. After graduating Saint Louis University Medical School, he completed residency training in anesthesiology and fellowship training in pain management at the Mayo Clinic. He has practiced in academics, private academics, private practice and in the Military Health System. Dr. Tiede deployed with 2-502 IN REG 2BCT "STRIKE" 101st AA in support of Operation Enduring Freedom (Afghanistan) in 2014. His clinical and professional areas of interests include functional rehabilitation in the service member. His research interests include spinal cord stimulation and interprofessional education in pain management.
Learning Objectives

• At the conclusion of this presentation, the participants will be able to:
  o Describe the evaluation and assessment process for interdisciplinary mild traumatic brain injury (mTBI)/pain treatment in a multidisciplinary program for Special Forces warfighters.
  o Analyze specific functional performance metrics for return to duty and sustained recovery for Special Forces soldiers.
  o Evaluate the impact of physical function in Special Operations Warfighters who undergo concurrent mTBI and pain functional recovery programs.
Interdisciplinary Outpatient Program for Special Operators

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Disclosure

- Jeffery Frankart, Dr. Kendra Jorgenson-Wagers, Sarah McNary and Dr. Jeffery Tiede have no relevant financial relationships to disclose.

- The views expressed in this presentation are those of the author and do not necessarily reflect the official policy or position of the Department of Defense, nor the U.S. Government.

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Patient Population

Intensive Outpatient Rehabilitation Program
Special Operations Forces Active Duty Patient Population:

n = 24

14 intensive treatment and 10 non intensive
6-week intensive physical therapy, occupational therapy, vision,
mTBI treatment
Below is a diagram of treatment measures that we used to evaluate patient outcomes:

WHO-QOL – World Health Organization Quality of Life
NSI – Neurobehavioral Symptom Inventory
HIT 6 – Headache Impact Test
MOCA – Montreal Cognitive Assessment
PGIC – Patient Global Indices of Change
ODI – Oswestry Disability Index
Sit/Reach Functional Movement Metric – Functional Movement
NeuroCom – a vestibular measure of Sensory Organization
FATS training – Fire Arms Weapons Simulation
CTMT or CMT – Canadian Trail Making Test, or the Contextual Memory Test
Mean averages of descriptive demographics for the intensive versus non-intensive patients. GT = General Technical measured by the Army Scoring on the Armed Services Vocational Aptitude Battery Test or ASVAB. (Parish, Jorgensen-Wagers, Katschke, Coldren, & Broulliard, 2013)
Outcome Metrics

This table presents outcome metrics for the patients from admission to discharge on selected metrics from the aforementioned clinical measures:

<table>
<thead>
<tr>
<th>Outcome Measure</th>
<th>Admission</th>
<th>Discharge</th>
<th>% Improvement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Headache Impact Test (HIT-6)</td>
<td>54.5</td>
<td>47</td>
<td>9.6%</td>
</tr>
<tr>
<td>MOCA</td>
<td>26.58</td>
<td>29.5</td>
<td>8.8%</td>
</tr>
<tr>
<td>NSI (Post Concussive)</td>
<td>32.923</td>
<td>10.33</td>
<td>25.6%</td>
</tr>
<tr>
<td>Sit/Reach</td>
<td>13.168</td>
<td>15.75</td>
<td>10.76%</td>
</tr>
<tr>
<td>Functional Movement</td>
<td>267</td>
<td>508</td>
<td>1.9X better</td>
</tr>
<tr>
<td>Disability Index</td>
<td>20.9</td>
<td>14.75</td>
<td>12.3%</td>
</tr>
</tbody>
</table>

*Headache Impact Test 36-78;  
*Montreal Cognitive Assessment Test 0-30;  
*NSI: Neurobehavioral Symptom Inventory 0-88  
*Sit/Reach Functional Movement Metric 0-24;  
*Functional Movement Program (higher number better)  
*Oswestry Disability Index 0-50;
The following represents a graphical display of the aforementioned outcome metrics for the intensive patients:
What Makes the Difference?

• Emphasis on functional gains not diagnosis
• Pain and mTBI issues are symptoms.
• Treatment brought out into the social group environment
• Use the military mindset of dedication to task and unit to reinforce personal progress across the six weeks and beyond.
• Effective, clear and functional “book-ends” for goals
• Specialized treatment and individual needs in addition to group synergy
• Clear Rules of Engagement (R.O.E.)
  o 3 rules for the Program
  o 5 ways to get kicked out
Rules of Engagement

• Three rules for the Program
  1. No Pain No Gain is WRONG.
  2. “Can’t” Isn’t a Word…it’s a Choice!
  3. Never stop moving, but DO NOT compete with others.

• Five ways to get kicked-out
  1. Push through pain, i.e., not ask for help
  2. Not modifying an exercise when instructed
  3. Saying the work “can’t” twice
  4. Stop moving during a session
  5. Talking while at rest
12-session Treatment Approach

- Transfer ownership of pain functional limitations to patient with evidence-based research and proven outcomes.
- Establish R.O.E. and expectations.
- Get patients moving.
- Create the community.
- Get patients results.
- Reinforce personal ownership with research and results. (Thirlaway & Davies, 2013)
- Continue community and peer support with social media. (Defense Center of Excellence for Psychological Health and Traumatic Brain Injury, 2011)
- Clinical “Fast-track/Life-line” for future exacerbation
Rules of Engagement  
Leads to Return on Investment

• Patients and family/command stakeholders can see tangible gains

• Builds a platform where education and empowerment are keys to resilience (Comper, Bisschop, Carnide & Tricco, 2005)

• “Book-ends” treatment in a health maintenance model

• Patient-directed care
Health Maintenance Investment

Direct Clinical Care hours per patient = 219
Direct care Cost per patient = $8,744
Sustainable change can be accomplished in a minimum of 12 sessions

A UH-60 Blackhawk costs $371/hour for depot level phase maintenance. Assuming aircraft average 200 flight hours a year that is $74,200 for an aircraft’s maintenance annually. (U.S. Department of the Army, 2016)
Future Directions

• Expanding principal investigator process into research protocol
• Expanding command engagement and stakeholder visibility
• Utilization of the Wounded Ill and Injured Registry (WIIR) for follow up and outcome sustainability
  o Continued clinical outcomes captured thru the Behavioral Health Data Portal- TBI Dashboard
  o Automate process through Relay Health in cooperation with Patient-Centered Medical Home Model.


QUESTIONS?
Post-Test and CE Evaluation for CE Credit

- To qualify to receive continuing education (CE) credit(s), you must have registered for the summit before **11:59 p.m. (PT) on September 15, 2016**.

- To obtain CE(s), you must **complete the post-test and CE evaluation after the conclusion of the session** at [http://dcoe.cds.pesgce.com](http://dcoe.cds.pesgce.com).

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