

# VA TBI Model Systems/I-MAP Newsletter

Issue 9 : Spring 2020

## Rehabilitation Needs in TBIMS/I-MAP

We are happy to present the 9th edition of the TBI Model Systems/I-MAP Newsletter focused on answering the question “What are the rehabilitation needs of Veterans and Service Members with TBI?” Given the length of our wartime conflicts and establishment of the Polytrauma System of Care, Congress asked this question because it has not been systematically studied before. As such, I-MAP, was funded as part of a longitudinal study of Veterans and Service Members with TBI to answer this question. I-MAP leveraged the existing infrastructure of the TBI Model Systems to quickly address these questions for Congress. Your responses to our phone calls, interviews, and surveys

are being used to share information with stakeholders at all levels including Congress. Thank you for your time and commitment. Check out this interview about one of the study’s findings:  
<https://www.Research.VA.Gov/Currents/1119-Study-points-to-need-for-further-rehab-five-years-post-TBI.cfm>

# Thank You,

Dr. Risa Nakase-Richardson, Principal Investigator  
Dr. Marc A. Silva, Co-Principal Investigator



Group photo from the DOD 11-year Report to Congress on the Long Term Effects of TBI Stakeholder and Research Working Meeting, held December 2019 in Tampa, FL.

The meeting focused on presenting research findings from the I-MAP and 15 Year Longitudinal, congressionally-mandated TBI Studies. The meeting aimed to develop key points, and draft recommendations with stakeholder input for legislative, programmatic, or administrative actions required to improve the long term care, rehabilitation programs, and services for members of the Armed Forces with TBI.

## New Research - Sleep Apnea

**Are you a Veteran with TBI that was diagnosed with Sleep Apnea?**

If so, we want to talk with you about a research study that is focused on helping Veterans with TBI who are treating their sleep apnea with CPAP, BiPAP, or APAP. The information from this study will be used to help other Veterans with chronic health conditions.

If you are considering participating in this study, or if you just want to learn more about it, contact the director of the study, Dr. Marc Silva, at (813) 972-2000 ext. 5613, or (toll free) 888-716-7787 ext. 5613.

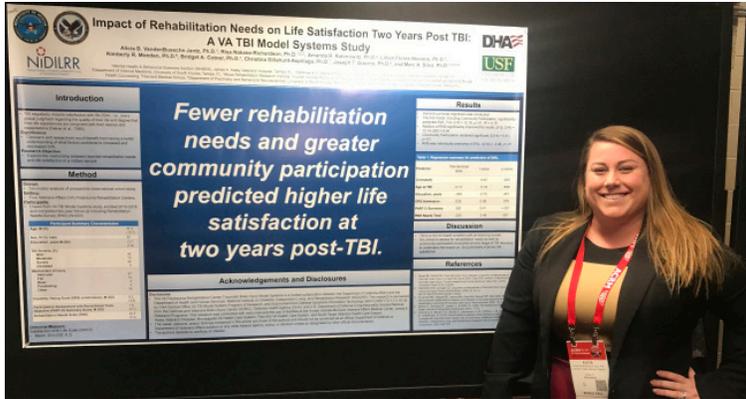
**Study Title:** Intervention to Improve Sleep Apnea Treatment Adherence in Veterans with Traumatic Brain Injury

USF IRB # Pro00041471 ClinicalTrials.gov ID: NCT04221009

## Want to be added to our newsletter mailing list?

Email [TampaTBIMS@VA.GOV](mailto:TampaTBIMS@VA.GOV) and include your name, address, and phone number and we will add you to our next mailing!

# Rehabilitation Needs and Life Satisfaction



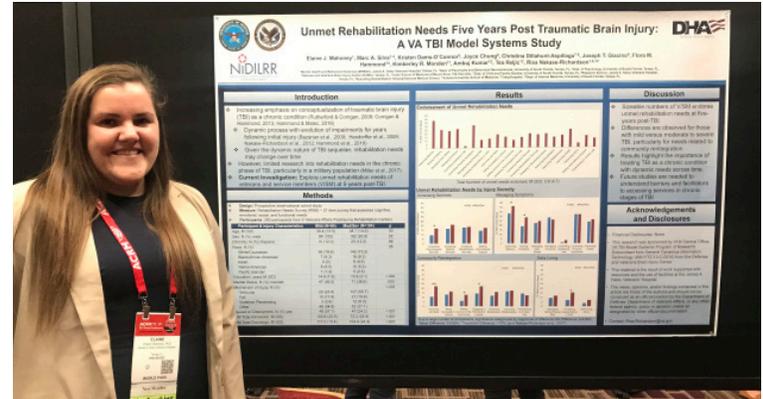
Dr. Alicia VandenBussche Jantz presenting on rehabilitation needs and life satisfaction at the 2019 ACRM conference in Chicago, IL

Prior research suggests that persons with TBI experience reduced life satisfaction. Life satisfaction refers to a person's judgment about the quality of his/her life. Or if a person's experiences match what s/he wants and expects out of life.<sup>1</sup> Scientists have learned that life satisfaction is unstable for many survivors in the years following TBI.<sup>2</sup> Lower life satisfaction has been attributed to poorer functional independence and lower community reintegration<sup>3</sup> which are key treatment targets during TBI rehabilitation. Unfortunately, many TBI survivors have unmet rehabilitation needs. Dr. VandenBussche Jantz and colleagues<sup>4</sup> studied the impact of unmet rehabilitation needs on life satisfaction among TBI survivors who were two years from their injury. Predictably, having a greater number of unmet rehabilitation needs was associated with poorer life satisfaction. Dr. VandenBussche Jantz<sup>4</sup> also examined the impact of specific needs, such as help with memory, managing money and bills, and coordinating health care services. Curiously, no specific rehabilitation need had a significant impact on life satisfaction. This suggests a cumulative impact of unmet needs is more important than any specific need type in determining life satisfaction during the chronic phase of TBI recovery.

References:

1. Diener E, Emmons R, Larsen J, Griffin S. The Satisfaction With Life Scale. *J Pers Assess.* 1985; 49(1), 71-75.
2. Juengst SB, Adams LM, Bogner JA, et al. Trajectories of life satisfaction after traumatic brain injury: Influence of life roles, age, cognitive disability, and depressive symptoms. *Rehabil Psychol.* 2015; 60(4): 353-364. doi: 10.1037/rep0000056
3. Corrigan JD, Bogner JA, Mysiw WJ, Clinchot D, Fugate L. Life satisfaction after traumatic brain injury. 2001; *J Head Trauma Rehabil.* 16(6), 543-555.
4. VandenBussche Jantz AB, Nakase-Richardson R., Rabinowitz AR, et al. Impact of rehabilitation needs on satisfaction with life: A VA TBIMS study. *Archives Phys Med Rehabil.* 2019; 100(12): e205.

# Unmet Rehabilitation Needs at 5-years post TBI



Dr. Elaine Mahoney presenting on rehabilitation needs 5 years post TBI at the 2019 ACRM conference in Chicago, IL

Individuals with TBI report cognitive, physical, emotional, and social symptoms for years after their initial injury. However, most individuals only receive rehabilitation services for a short period of time. Because of this, individuals are likely continuing to experience difficulties and not receiving the help they need. Dr. Mahoney and colleagues discovered that nearly two-thirds of Veterans and Service Members who are 5 years post TBI reported at least one unmet rehabilitation need. The most common needs reported included improving memory, controlling physical symptoms, and managing their emotions. The research then took it one step further. Researchers looked at variables that might make it more likely that someone would have unmet rehabilitation needs at 5 years after their injury. Surprisingly, the severity of the injury did not predict who would have a higher number of needs. The strongest predictor of having more unmet rehabilitation needs was report of greater environmental barriers. These barriers included things like the availability of transportation, access to information about resources, and the attitudes of people in society. This research emphasizes that TBI should be considered a chronic condition and that rehabilitation services may be required many years after the initial injury. Knowing the environmental barriers that people face may also help identify those who are at particular risk for having unmet needs.





Photos above and below are from the DOD 11-year Report to Congress on the Long Term Effects of TBI Stakeholder and Research Working Meeting December 2019 in Tampa, FL. Members from the Defense and Veterans Brain Injury Center, 15 year Study at Walter Reed National Military Medical Center, VA TBI Model Systems at the 5 Polytrauma Rehabilitation Centers (Tampa, FL, Palo Alto, CA, Richmond, VA, Minneapolis, MN, San Antonio, TX), Veteran and Caregiver stakeholders, as well as professional stakeholders from the James A. Haley Veterans' Hospital, US Special Operations Command, Moss Rehabilitation and Research Institute, VA Central Office, TIRR Memorial Hermann and Baylor, Defense Health Agency, University of Washington, University of Colorado, Rehabilitation Hospital of Indiana, Icahn School of Medicine, VA Sunshine Healthcare Network (VISN 8), Ohio State University, and University of Michigan were in attendance.



Johanna Smith (DVBIC Longitudinal Studies Program Analyst) and Dr. Amanda Garcia (DVBIC Neuropsychologist)

Group listening to a presentation at the DOD 11-year Report to Congress on the Long Term Effects of TBI Stakeholder and Research Working Meeting



# Rehabilitation Needs of Veterans and Service Members with TBI - A Qualitative Study

Veterans and Service Members (V/SMs) with TBI or their family members on their behalf were interviewed about their rehabilitation needs as part of the I-MAP longitudinal study. They identified they received the following types of rehabilitation post-TBI:

- Physical Therapy
- Medicines/Polypharmacy
- Speech Therapy
- Occupational Therapy (V/SMs with Disorders of Consciousness (DOC) and Severe TBI)
- Psychology/Neurology (V/SMs with Moderate and Mild TBI)

V/SMs with DOC/Severe TBI received four main types of rehabilitation: physical therapy (56%), medicine/polypharmacy (36%), occupational

therapy (31%), and speech therapy (28%). V/SMs with Moderate/Mild TBI received five main types of rehabilitation: physical therapy (40%), medicine/polypharmacy (33%), exercise at home or during their time at PTRP (20%), psychology/neurology (20%), and speech therapy (20%).

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“They want to make sure that you’re a functioning person when you leave there (rehabilitation).”

-V/SM with Severe TBI

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During the interviews, V/SMs with DOC/Severe TBI (or their family members) identified wanting more physical therapy (19%); however, overall, the majority of V/SMs with TBI interviewed did not describe rehabilitation needs that they felt were unmet.

## TBI Resources

### Make the Connection

Veteran and Service Members connection to the resources, tools, and support you need:

[MakeTheConnection.net](http://MakeTheConnection.net)

### National Resource Directory

Get resources for education and training, transportation and travel, family and caregiver support, employment, housing, and more:

[NRD.Gov](http://NRD.Gov)

### Mild TBI Symptom Management Fact Sheet

These fact sheets provide coping and recovery tips to help patients manage mild TBI symptoms such as neck pain, headaches, and dizziness.

[DVBIC.DCOE.Mil/Fact-Sheets](http://DVBIC.DCOE.Mil/Fact-Sheets)

### National Call Center for Homeless Veterans

1.877.424.3838

### Military and Veteran Crisis Line

1.800.273.8255, Press 1 to Connect

### Wounded Warrior Resource Center (MOS)

1.800.342.9647



Meet your TBI Model Systems follow-up data collectors!  
L-R: Jordan Moberg, Amanda Royer, Erin Brennan

## Contact Information

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\*Photos courtesy of James A. Haley Veterans' Hospital and TBI Model Systems Staff



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