

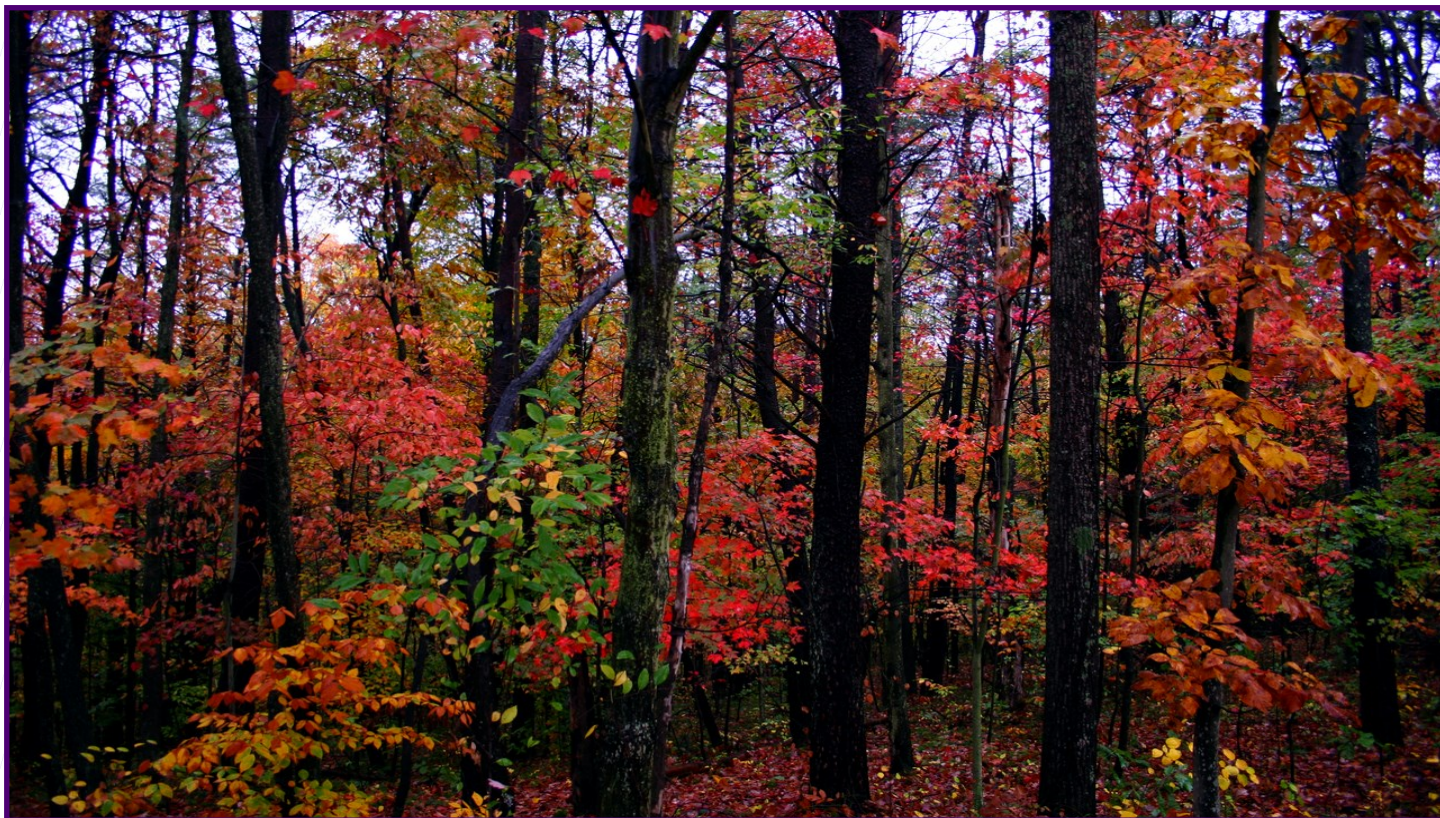


TBI

Model System Updates

Fall 2021

Volume 19
Issue 2



Brain Injury and Changes in Mood

Hello from the [University of Washington Traumatic Brain Injury Model System](#).

Heading into the rainy and overcast fall season is a comforting time of year for some, but for others it may bring negative changes in mood. Eating healthy, getting enough sleep, and including some kind of exercise in your routine can be helpful for managing these changes. We had the opportunity to talk with Dr. Chuck Bombardier, an investigator for the TBIMS and Rehabilitation Psychologist at Harborview Medical Center, about the role physical activity plays in managing mood. We hope you enjoy this issue!

**INSIDE
THIS
ISSUE**

Story begins on:

Physical Activity and Mood	Pg. 2
Who's Who?	Pg. 4
Shared Stories	Pg. 5
Research Updates	Pg. 7
Resources	Pg. 8

W

Physical Activity and Managing Mood

Depression is a common and often disabling problem in people who have had a TBI. Depression can be more than feeling sad or down. According to the *Diagnostic and Statistical Manual of Mental Disorders-5*, which contains the criteria for diagnosing mental health conditions, major depressive disorder is defined as having a depressed mood or a loss of interest or pleasure in usual activities which impact function AND at least five of the below symptoms, most of the day, most days of the week, for at least two weeks:

- Fatigue
- Changes in sleep
- Changes in appetite and weight
- Feelings of guilt or letting others down
- Being slowed down or antsy
- Difficulty concentrating
- Thoughts of death or self-harm

Depression occurs in up to 53% of people with TBI during the first year after injury and can negatively impact functioning and quality of life. The two traditional pillars of treatment are antidepressant medications and counseling. Counseling focused on helping people engage in pleasant or meaningful activities and change negative thinking patterns are especially helpful. However, a third treatment for



depression that has been shown to be effective and popular is exercise.

Exercise is the Swiss Army tool of life. It can be used to help just about everything. For this article we use the word exercise to mean any physical activity that you do that gets your body moving, including things you do as part of your normal life (for example walking or rolling to work or the store) or things you do in your free time (like go for a walk or work out in your home). Exercise improves mood, sleep, energy and endurance, pain, and even thinking abilities.

Exercise is most helpful when it is moderately hard, meaning it gets you breathing harder and your heart rate up. It is also good to shoot for at least 150 minutes per week of moderately intense exercise, which can be done in bouts throughout the week. However, research has shown that pretty much any increase in exercise can improve our overall health, thinking and emotions. The current mantra is “sit less, move more.” You don’t have to go to a gym to exercise. Walking or wheeling around the neighborhood, doing your home exercise program or housework or yardwork in a way that gets you breathing harder and sweating a little are all ways to exercises. Do what works best for you.



SIT LESS, MOVE MORE !

Continued on next page

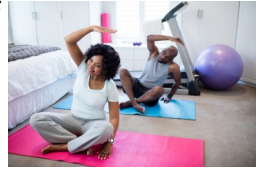
Physical Activity and Managing Mood (cont.)

For those with smartphones, there are tons of free or cheap apps that can guide you through an exercise program. There are workout apps proven to have positive health benefits that take as little as seven minutes per day (search for “7-minute workout”). One cool new resource in the rehabilitation world: [Exercise is Medicine](#). This site has a ton of exercise advice and links to resources for people with chronic health conditions.

Now, back to depression. First, we know that exercise is an ideal option for treatment of depression for people with TBI. One study found that 89% of people who had depression and TBI said they would engage in exercise to treat their depression. Second, we know exercise is an effective treatment for depression. A recent review of 25 exercise trials showed that exercise had a large antidepressant effect on people with depression, including full-on major depressive disorder. The effects were the same regardless of whether the participant was male or female, young or old, very depressed or only mildly depressed and taking antidepressants already or not. The length of the trial also did not matter—whether it was 4, 8, 12, or 16-weeks long. The exercise treatment was more effective if the exercise was moderate to heavy intensity, individual rather than group-based, and supervised by someone else.

If you are not sure whether exercise is for you, take 5 minutes to write down all the potential benefits you could get from becoming more active and post it where you see it often.

While there is not a lot of information on exercise as a treatment for depression in people with TBI, a study at the



University of Washington from 2008 showed that those who exercised at least 90 minutes per week had significantly improved mood over a 10-week period. We don't know for sure, but we think exercise works because it helps so many other conditions that seem to contribute to depression such as pain, poor sleep, fatigue, and lack of pleasure.

What is the take-home message here? If you feel your mood is not as

good as it could be, take a minute to think about exercise. *What do you already do to stay active? What might you be willing to do to become more active?* If you are not interested in exercising more, think about what you could be missing. If you are not sure whether exercise is for you, take five minutes to write down all the potential benefits you could get from becoming more active and post that list where you can see it often. If you are ready to start exercising more now, fill out the [7 - Item Physical Activity Readiness Questionnaire](#) to ensure you are safe to do more and consider talking to your doctor about how to get started. Check your local YMCA, or community pool. Many offer discounts or sliding scales.

(Find some physical activity resources on last page.)

Who's Who?



Kayli Gimarc, MD has joined us at the University of Washington as our new Brain Injury Medicine Rehabilitation Fellow. For the next year, Dr. Gimarc will be rotating between Harborview, UW

Medical Centers, and Seattle Children's Hospital. In addition to seeing individuals with brain injuries of all different severities and types. She is also assisting with teaching resident physicians on the rehabilitation medicine inpatient and consult teams.

Dr. Gimarc grew up in Michigan where she received her undergraduate degree and medical degree from Michigan State University. She moved to Seattle to complete her

residency in Physical Medicine & Rehabilitation at the University of Washington. She is thrilled to be continuing her training at UW as a fellow in Brain Injury Medicine, and enjoys helping patients work toward their functional goals both in and out of the hospital. Her clinical interests include spasticity and tone, headache, mood disorders, and sleep management.

Outside of work, you can find Dr. Gimarc embarking on a long hike or trail run in the Cascades. She also enjoys camping and taking care of her many houseplants.



Seasonal Cranberry and Apple Cider Pilaf

3 tbsp. olive oil, divided
1 small cinnamon stick
2 large garlic cloves, chopped
2 cup wild rice blend
1/4 cup flat leaf parsley, chopped

1/2 cup fresh apple cider
1/2 cup dried cranberries
2 onions, chopped
2 tbsp. white wine vinegar
4 scallions, salt and pepper to taste

Heat 1 tbsp. oil in medium saucepan over medium heat. Add cinnamon stick and garlic and stir about 1 minute until fragrant. Add rice to coat. Add cider and 2 1/2 cups water. Season with salt and pepper and bring to a boil; reduce heat to low, cover and cook until rice is tender about 15-17 min. Add cranberries during last 10 minutes of cooking. Meanwhile, heat remaining 2 tbsp. oil over medium heat. Add onions. Cook, stirring occasionally until onions are tender. Add garlic and cook 1-2 minutes, then add vinegar and parsley. Combine with rice mixture and serve.

Shared Stories

Relearning to Climb Post-TBI: Nearing my 10-year TBI Anniversary

by Christian Rusby

This February will mark the 10-year anniversary of my traumatic brain injury (TBI). Like all survivors, we find ways to build upon our successes to incrementally gain abilities and find more joy in our lives.



I felt like much of the eye-catching snow-covered visible part of life that I was building, had disappeared.

For me, this looked like the proverbial mountain, but that mountain's top that I was climbing toward disappeared in a "volcanic eruption" with a TBI-- and ultimately looked more like Mount St Helens after it's eruption in 1980! Like the 15% of Mount St Helens top that was missing after the eruption, my own life's mountain reshaped. I have spent this time afterward redefining what success looks like. As a TBI survivor I have used this time to make the most of the resources and potential I was able to retain after the TBI. It can certainly seem daunting just to regain stability, juggling rehabilitation doctor appointments, managing social support services, let alone a focus on

meaningful employment, dating or even just having fun with friends.

Much of the life that I had, faded away as I couldn't think as sharply as I had pre-injury. As with this mountain analogy, I felt like much of the eye-catching snow covered visible part of life that I was building had disappeared.

Being a brain injury survivor has challenged me in ways that have been incredibly frustrating: I felt that I had lost the ability to relate socially because I was so focused on the daily rehabilitation struggle and recovery of what I valued most; I would get mad because I would lose focus or not finish simple tasks that I would hardly have to think about before; I would often grasp-for words or ideas that used to come quickly before my injury; Having diplopia (double-vision or eyes drifting apart into separate images) made activities THAT much more difficult; Balance difficulties put extra strain on an existing knee injury, which resulted in needing to have 20% of the padding removed in my right knee, and; With my right side paralysis, I spent months in a wheelchair before moving to a walker, and ultimately struggling to walk unassisted when leaving the hospital

Continued on next page

Do you have a story you would like to share? Do you have questions about TBI?

Do you have any feedback about this newsletter?

We would love to hear from you! Please email our team.

Email: uwtbi@uw.edu

Shared Stories (cont.)

some 4.5 months later.



Just like Mount St. Helens, my injury left a different mountain elevation profile to encourage different aspects of my new life.

My life will never be exactly what

it would have been before my injury. Aspects look different today and my life looks different as well. What remains is still the foundation of strength, learning and community that I had built up to the point of injury.

What I have also noticed is the richer ecology at the edges that were created! I have taken greater time to build the long-term rewarding positive aspects of my life at these margins rather than pushing so hard to simply get higher.

No longer do we simply look like every other big mountain, but have more interesting detailed edges just like Mount Saint Helens.

Now I find myself using electronic technology so I can participate with others using programs like maps, calendar reminders, as well as needing to double-check lists to look for things I need before I checkout. These sorts of difficulties are becoming easier and easier as I continue to retrain after injury. Life is constantly changing and we must continually adapt to maintain the parts we love most.

Life is about enjoying, and improving upon previous successes and building those communities of people we love and just like the different life

returning to the margins of Mount St. Helens, we survivors will simply return differently than we looked before our injuries having retained the 85% of the magnificent mountain. No longer do we simply look like every other big mountain, but have more interesting detailed edges just like Mount St. Helens.

Upcoming Brain Health & Wellness Classes

- **October 13th, 1-2PM:** “Connect People with Research after TBI” Megan Moore, PhD, MSW and Leslie Kempthorne will present on how you can get connected.
- **November 10th, 12-1PM:** “Navigating DVR” (Division of Vocational Rehabilitation) presented by Bob Fraser, PhD founder of Neurological Vocational Services. Dr. Fraser will discuss employment.
- **December 8th, 11-12:30PM:** “Advocacy” Silas James, MPA will join us again talking about the ways that you can advocate and feel empowered in many different situations.



Register [online](#), call 206-467-4800 or email Kylie at kyliejou@biawa.org for more information.



Research Updates

The TBI Model System Celebrating 34 Years!

Over the past 30+ years, more than 18,000 individuals with TBI who have been admitted to an inpatient rehabilitation facility have contributed data to the largest longitudinal study of TBI in the world. Participants and caregivers have also contributed to hundreds of multi-center and single-center research projects, improving the outcomes of individuals at all stages of recovery and independence.

Accomplishments

Individuals with TBI who enroll and continue to participate in the TBIMS have contributed to an incredible amount of information that has shaped TBI rehabilitation, follow-up care and community resources as we know them today. For example:

- TBIMS is the largest, prospective, multicenter, longitudinal database representative of preinjury, injury, acute care, rehabilitation and outcomes of 150,000+ adults with moderate to severe TBI in the U.S.

- Clinical practice guidelines for treating post-traumatic seizures, spasticity, post-traumatic agitation, post-traumatic headache and disorders of consciousness in people with brain injury including novel therapies and treatment approaches for improving recovery after TBI State-of-the-art diagnostic tools and outcome assessments

- Nearly 1,000 peer-reviewed manuscripts, guides and fact sheets for patients, families, caregivers and professionals

- User-friendly, web-based resources for individuals with brain injury, caregivers and professionals

Thank you to all of you who have participated over the years —you have a big impact!

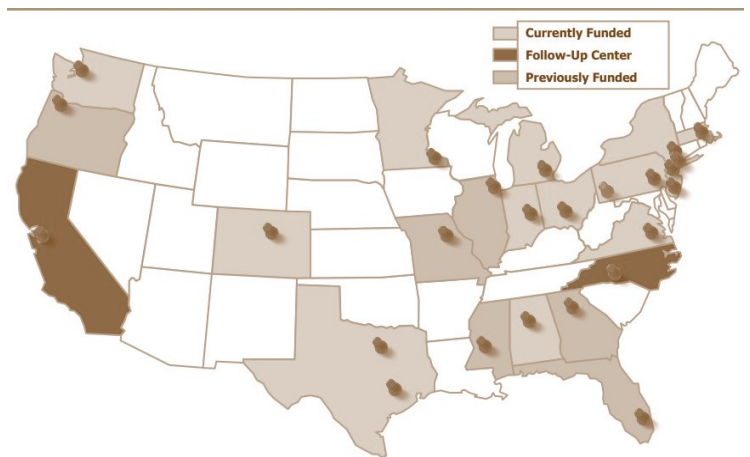


Are you enrolled in the TBIMS and interested in participating in other studies?

We are recruiting for the Late Effects of Traumatic Brain Injury—the LE-TBI study. LE-TBI is focused on improving understanding the long-term effects for people with TBI and includes MRI scanning, a blood draw and making your wishes known about brain donation.

Please contact Meghan at (206) 685-1512 to learn more.

late effects of
traumatic
brain injury
project





TBIMS Staff

Project Director:

Jeanne Hoffman, PhD

Investigators:

Chuck Bombardier, PhD
Cherry Junn, MD
Jesse Fann, MD, MPH
Sylvia Lucas, MD, PhD
Amy Starosta, PhD

Research Staff:

Jason Barber, MS
Kayla Cayton
Mary Curran, MSW
Meghan Gill
Silas James, MPA
Melissa Mayes, MSW
Taylor Obata
Laurie Peabody
Erica Wasmund

Contact Us:

uwtb@uw.edu
206-543-7012



@UWTBIMS

www.facebook.com/
UWTBIMS



Resources for Physical Activity

FLASH (Fun Leisure Access Savings and Health) —

<https://www.agingkingcounty.org/help-information/disabilities/>

Discount and ID card for adults with disabilities in King County. The FLASH Card provides discounts on goods and services from businesses, recreational facilities and events.

Outdoors for All — <https://outdoorsforall.org/>

The Outdoors for All Foundation transforms lives through outdoor recreation, delivering adaptive and therapeutic recreation for children and adults with disabilities. Outdoors for All's programs includes snowboarding, snowshoeing, skiing, cycling, hiking, river rafting, kayaking, day camps, rock-climbing, and more!

Access Pass to National Parks — <http://store.usgs.gov/pass/access.html>

A free, lifetime pass - available to residents of the United States that have been medically determined to have a permanent disability - that provides access to more than 2,000 recreation sites.



ADA-Accessible Hikes — <https://www.wta.org/hiking-info/children/kids-hikes/ada-accessible-hikes>

Wheelchair Accessible Trails — <http://www.trailink.com/stateactivity/wa-wheelchair-accessible-trails.aspx>

YMCA of Greater Seattle—<https://www.seattleyymca.org/> The Y is Seattle's founding nonprofit organization, offering health, hope, and opportunity.

The [Brain Injury Alliance of Washington](#) (BIAWA) offers [helpful information and resources](#), including how to attend an online support group, as well as a podcast to offer educational topics, comfort and strategies to get through this time. Contact the **BIAWA Resource Line 1-877-982-4292**



**Latest Podcast
Episode—
[LISTEN HERE](#)**



UW TBIMS Equity Statement

The Traumatic Brain Injury Model System team does research to improve the health of people who have had traumatic brain injuries. Structural racism, which is any policy or procedure that contributes to inequality, can make people sicker - especially people who are Black, Indigenous, and other People of Color, as well as LGBTQ+ communities, people with low income and those with disabilities. We are committed to improving the lives and well-being of people who have experienced traumatic brain injuries, and that includes using our research to increase awareness of the effects of racism.



TBIMS Updates

Volume 19, Issue: 2

The contents of this newsletter were developed under a grant from the [National Institute on Disability, Independent Living, and Rehabilitation Research](#) (NIDILRR grant number 90DPTB0008). NIDILRR is a Center within the Administration for Community Living (ACL), Department of Health and Human Services (HHS).



If you would like to be added to the e-mail list for future publications and upcoming events, please email uwtbi@uw.edu. In the subject line, please type "subscribe newsletter." If you wish to be taken off our subscription list you may also email uwtbi@uw.edu and type "unsubscribe newsletter" in the subject line.

University of Washington Traumatic Brain Injury Model System

1959 NE Pacific St. • Box 356490 • Seattle, WA • 98195

Main office: 206-685-1082

Email: uwtbi@uw.edu

www.tbi.washington.edu

