

# CEREBRAL HAPPENINGS

## LETTER FROM THE CHAIR

Hello Brain Injury SIG:

We were delighted with the attendance at our events at CSM in Anaheim. We spoke with many of you at the Myelin Melter and felt we had a great group for our breakfast meeting on Saturday morning. I have sent out emails to people expressing interest in becoming more interested in the SIG and would love to hear back from any of you with ideas or energy to dive into a project.

I want to say a big thank you to Megan Barber whose term on the nomination committee ended this month. We'll miss you and wish you the best in all you do.

Here is an update on our current projects:

1. **Online Journal Club:** we had our latest meeting as a collaboration with the Wheeled Mobility and Technology SIG in April and discussed an article examining 2 different manual wheelchair set ups for use with people post brain injury. The audio was not working well and we are investigating alternative platforms so that we can exchange ideas more freely.
2. **Facebook Page:** visit our Facebook page. This is a great way to reach members and provide feedback or ask clinical questions to the group. We have 615 likes now, so we are reaching a large number of you. Please feel free to initiate discussion here—it's a great forum to reach a large number of interested people.
3. **Advocacy Papers:** our latest advocacy paper on Disorders of Consciousness was written by Jennifer Fernandez and Hannah Foster is now posted on the website. If anyone is interested in contributing to the SIG by writing an advocacy paper, contact me [mbao@nc.rr.com](mailto:mbao@nc.rr.com)
4. **Elections:** voting closed on May 15 and results are in. The Academy of Neurologic Physical Therapy will be posting results soon.

## SPRING 2016 EDITION

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### Officers:

#### Chair

Mary Beth Osborne, PT, DPT, NCS  
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#### Vice Chair

Jennifer Fernandez, PT, DPT, NCS, PCS  
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#### Secretary

Carolyn Tassini, PT, DPT, NCS  
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#### Nominating Committee

Megan Barber, DPT, MSPT  
[mbarber22@hotmail.com](mailto:mbarber22@hotmail.com)

Jodi Krause, PT, DPT, NCS  
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Hannah Foster, PT, DPT, NCS, CBIS  
[hannahefoster1@gmail.com](mailto:hannahefoster1@gmail.com)

5. **Other projects:** we are looking for opportunities to offer webinars as educational opportunities to our members and are working on an online discussion group for clinicians targeted for late summer. Please contact me with ideas, feedback or any interest in helping out.

Best—Mary Beth A.  
Osborne, PT, DPT, NCS

## NEXT 2016 CONFERENCE

NASHVILLE, TN  
June 8-11, 2016



## BRAIN INJURY SIG PROJECTS

### BRAIN INJURY SIG PUBLISHES ANOTHER ADVOCACY PAPER

The BI SIG has completed another advocacy paper titled “The Role of Physical Therapy in Patients with Disorders of Consciousness,” created by BI SIG leadership team members Jennifer

Fernandez and Hannah Foster. Advocacy papers are designed to provide resources to educate patients, physicians, and therapists on various topics related to brain injury. All

published advocacy papers can be found at:  
<http://www.neuropt.org/special-interest-groups/brain-injury/new-noteworthy>

### BRAIN INJURY SIG HOSTS ANOTHER ONLINE JOURNAL CLUB

On April 7, the BI SIG partnered up with the

Assistive Technology/Seating and Mobility SIG to host

another online Journal Club, presented by the BI SIG

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Chair, Mary Beth Osborne. SIG Members attended the meeting via AnyMeeting to discuss the article by Regier et al: *Two Approaches to Manual Wheelchair Configuration and Effects on Function for Individuals with*

*Acquired Brain Injury*. Please see the link to access the abstract: <https://www.ncbi.nlm.nih.gov/pubmed/25227544>. Please stay tuned for future Journal Clubs. Announcements will be posted on the Facebook

page and the NeuroPT listserv. If you are interested in attending a journal club or presenting at a journal club, please contact Mary Beth Osborne at [mbao@nc.rr.com](mailto:mbao@nc.rr.com)

## ABSTRACT OF THE QUARTER

The BI SIG has started an *Abstract of the Quarter* project last year. Each quarter (January, April, July, and October), the SIG will send an abstract featuring brain injury-relevant topics to

facilitate evidence-based practice. The most recent abstract was sent to BI SIG members via email and was titled *Characteristics and Concerns of Caregivers of Adults with Traumatic Brain*

*Injury*. Link: <https://www.ncbi.nlm.nih.gov/pubmed/27022956>. Stay tuned for the next abstract, which will be available in July 2016.

## CONCUSSION CORNER

### ***Managing Patients with Prolonged Recovery Following Concussion***

Persistent symptoms following concussion can be debilitating for patients and challenging for clinicians; however, evidence-based approaches to symptom management are emerging. The presentation of post-concussion syndrome can be variable among patients. Given this variability, a thorough history and physical examination are necessary to tailor an individualized treatment approach. Pharmacological interventions can be considered when prolonged symptoms are negatively affecting quality of life. This article reviews evidence available to guide such treatment decisions.

Miller P, Reddy C. Managing patients with prolonged recovery following concussion. *Phys Med Rehabil Clin N Am*. 2016;27(2):455-74

Link: <https://www.ncbi.nlm.nih.gov/pubmed/27154856>

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***Aerobic Exercise for Adolescents with Prolonged Symptoms after Mild Traumatic Brain Injury: An Exploratory Randomized Clinical Trial***

**Objective:** To describe the methodology and report primary outcomes of an exploratory randomized clinical trial (RCT) of aerobic training for management of prolonged symptoms after a mild traumatic brain injury (mTBI) in adolescents.

**Setting:** Outpatient research setting.

**Participants:** Thirty adolescents between the ages of 12 and 17 years who sustained a mTBI and had between 4 and 16 weeks of persistent symptoms.

**Design:** Partially blinded, pilot RCT of subsymptom exacerbation aerobic training compared with a full-body stretching program.

**Main Measures:** The primary outcome was postinjury symptom improvement assessed by the adolescent's self-reported Post-Concussion Symptom Inventory (PCSI) repeated for at least 6 weeks of the intervention. Parent-reported PCSI and adherence are also described.

**Results:** Twenty-two percent of eligible participants enrolled in the trial. Repeated-measures analysis of variance via mixed-models analysis demonstrated a significant group  $\times$  time interaction with self-reported PCSI ratings, indicating a greater rate of improvement in the subsymptom exacerbation aerobic training group than in the full-body stretching group ( $F = 4.11$ ,  $P = .044$ ). Adherence to the home exercise programs was lower in the subsymptom exacerbation aerobic training group compared with the full-body stretching group (mean [SD] times per week = 4.42 [1.95] vs 5.85 [1.37],  $P < .0001$ ) over the duration of the study.

**Conclusions:** Findings from this exploratory RCT suggest subsymptom exacerbation aerobic training is potentially beneficial for adolescents with persistent symptoms after an mTBI. These findings and other recent research support the potential benefit of active rehabilitation programs for adolescents with persistent symptoms after an mTBI. Larger replication studies are needed to verify findings and improve generalizability. Future work should focus on determining the optimal type, timing, and intensity of active rehabilitation programs and characteristics of individuals most likely to benefit.

Kurowski B, Hugentobler J, Quatman-Yates C, et al. Aerobic exercise for adolescents with prolonged symptoms after mild traumatic brain injury: an exploratory randomized clinical trial. *J Head Trauma Rehabil.* 2016; [Epub ahead of print]

Link: <https://www.ncbi.nlm.nih.gov/pubmed/27120294>



## Like us on Facebook!

**Brain Injury Special Interest Group of the Neurology Section of the APTA**

We will communicate various SIG happenings including journal clubs and other activities via our Facebook page.