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LETTER FROM THE CHAIR Michelle D. Peterson, PT, DPT, NCS

BI SIG members,

I have some exciting news. The Proponency Office for Rehabilitation and Reintegration organized a team of therapists to develop evidence-informed clinical management guidance to provide state of the art rehabilitative care for wounded warriors with concussion/MTBI. The guidance document and the toolkit are in a draft form and hope to be finalized by the end of the year. The link to this document will be placed on the website once it is officially available. The toolkit sections are listed below as well as an example of how an assessment form is arranged.

TOOLKIT SECTIONS

Occupational Therapy

- Vision Dysfunction
- Cognitive Dysfunction
- Performance of self-management, work, social roles

Physical Therapy

- Vestibular Dysfunction
- Balance Complaints
- Post Traumatic Headache
- Temporomandibular Joint Dysfunction
- Attention and Dual-Task Deficits
- Fitness
- Participation in life roles



Example "Face Sheet" for Assessment

Purpose/Description

Recommendations on Use of Instrument

Administration Protocol Equipment/Time

Groups Tested With This Measure

Interpretability NORMS MDC Responsiveness

HENRY FORD HEADACHE DISABILITY INVENTORY

PURPOSE/DESCRIPTION: The Headache Disability Inventory (HDI) is a 25-item patient self-report that measures the impact of headache on daily living. There are two scales including functional (12 items) and emotional (13 items) that combine for a maximum total score of 100 (Jacobson, et al., 1994).

RECOMMENDATIONS ON USE OF INSTRUMENT: This tool is useful for determining the overall impact of headache on a patient's activities of daily living. It should be used in conjunction with standard measures of impairment to cervical and jaw function and muscle performance (range of motion, strength, etc.). Headache severity should also be monitored including type, frequency, duration and severity of headaches (see (McDonnell, Sahrman, & Van Dillen, 2005)).

ADMINISTRATION PROTOCOL/EQUIPMENT/TIME: Paper and pencil self-test. May take up to 20 minutes to fill out. Scoring requires about 3 minutes.

GROUPS TESTED WITH THIS MEASURE: Patients of all ages with a variety of headache etiologies. The majority of studies appear to be in patients with chronic headache (Jacobson, et al., 1994; Jacobson, Ramader, Norris, & Newman, 1995).

INTERPRETABILITY:

NORMS: A higher score indicates greater disability due to headache.

- Minimum score: 0
- Maximum emotional subscale: 52
- Maximal functional subscale: 48
- Maximum score: 100

Minimal detectable change (MDC):

95% confidence level: 29 point change or greater in the total score; 18 points for the functional scale; 15 points for the emotional scale.

NOTE: this was based on a mean of 67 day retest on patients with headache (Jacobson, et al., 1994).



Example "Face Sheet" for Assessment

Interpretability
Reliability Estimates

Interpretability
Validity Estimates

References

If the patient's score is less than the MDC value, it is considered to be indistinguishable from measurement error.

Responsiveness Estimates: N/A

RELIABILITY ESTIMATES:

Internal Consistency: Correlations using Chronbach's alpha between the functional and emotional subscale and total score were both $r=0.89$ (Jacobson, et al., 1994). Tested in a sample of patients that presented to a headache clinic for evaluation of their headache.

Interrater: N/A questionnaire

Intrater: N/A questionnaire

Test-Retest: Test-retest scores in 77 patients (60 women) seen in a diagnostic headache center on two occasions separated by a mean of 67 (SD 27 days) days $r=.76$ for the functional score, .82 for the emotional score (Jacobson, et al., 1994). Reliability co-efficients were similar when tested 1 week apart (.70) show good test re-test reliability for the total score, and the two subscale scores (Jacobson, et al., 1995).

VALIDITY ESTIMATES:

Content/Face: Derived from existing scales of for hearing and dizziness disability and from a clinical expert in a headache diagnostic center (Jacobson, et al., 1994).

Criterion: Spouses of patients generally agreed with ratings of patient (Jacobson, et al., 1995); age and gender or type of headache did not significantly affect the ratings of headache disability (Jacobson 1994).

Construct: 109 patients with a mean age of 38 (s.d. 11.6) years, seen in a diagnostic headache center, evaluated their headache frequency and severity on a three-point scale. This was compared to their ratings on the HDI using an ANOVA to determine if self-perceived headache disability would increase with number of headaches and the number of severe headaches. A significant effect between headache magnitude and HDI was found for the total score; and for both subscales (Jacobson, et al., 1994).

REFERENCES:

Jacobson GP, Ramadan NM, Aggarwal SK, Newman CW. The Henry Ford Hospital Headache Disability Inventory (HDI). *Neurology*. 1994 May; 44(5):837-45.

Jacobson GP, Ramadan NM, Norris L, Newman CW. Headache disability inventory (HDI): short-term test-retest reliability and spouse perceptions. *Headache: The Journal of Head and Face Pain*. 1995 35(9):534-539.

The BI SIG continues to look to the membership for volunteers to help with its initiatives. This year, there are several opportunities to lend a helping hand (or should I say "brain.") Read on to find out if any of these projects are right for you.

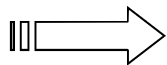
The BI SIG is planning to develop two downloadable education flyers for our website this year to assist the Neurology section with their strategic plan in the area of advocacy. One of the topics is a brochure with information about falls and how it is becoming a main etiology for brain injury and then provides fall prevention information. The other topic is a paper related to adolescents and sports concussion. The paper should outline the risks of injury to the developing brain, question of repeated concussions over time with onset of contact sports early. If you are interested in developing either of these, please contact Sara Trout at trouts@einstein.edu.

The BI SIG is interested in working together with the Neurology section and APTA in the PTNow portal project. What is PTNow Portal? Say you have a patient with a condition you rarely see. You need to research approaches to managing this type of patient. You have access to the Internet and a world of information -- but you *don't* have time to filter through it all. With optimized search technology and section-generated content, PTNow will be an entry point to summarized information and clinical applications, a direct route to pre-filtered destinations, and a gateway to sections. We need portal themes as well as authors. Please contact Carolyn Tassini at ow25@aol.com to participate.

We are still recruiting volunteers from all states to serve as the BI SIG key contact. The key contact person will allow the BI SIG to determine needs, trends and practice issues across the country. For example, the BI Chair is often contacted by consumers requesting information about TBI rehabilitation in their home state. The key contact might be able to provide some of that information. Different states are often looking for different CEU topics. This information could be relayed to the key contact and brought forward to develop CSM or local programming. We were able to get the key contact map up and running last year. We are in the process of updating it and fixing a few glitches. Check it out at our website, <http://www.neuropt.org/go/special-interest-groups/brain-injury>. Contact Michelle Peterson at Michelle.Peterson@va.gov to become your state key contact.

Thank you,
Michelle Peterson
BI SIG Chair

**CSM 2011
New Orleans
FEBRUARY 9-12, 2011**



For hotel information please click on this link
[Hotel info](#)

CONFERENCE PROGRAMMING

Expanding Neurologic Expertise: Advanced Practice in Vestibular Physical Therapy

[Tuesday, Feb 08](#) - 8:00:AM - 5:30:PM [Wednesday, Feb 09](#) - 8:00:AM - 5:30:PM

Therapeutic Management of Neurologic Gait Dysfunction: Integrating Observation, Clinical Evaluation, and Biomechanical Research to Guide Evidence-Based Practice

[Tuesday, Feb 08](#) - 1:00:PM - 5:00:PM [Wednesday, Feb 09](#) - 8:30:AM - 5:00:P

Thursday Feb. 10, 2011

12:30 PM - 2:15 PM

[Assessment & Treatment Planning for Individuals with Disorders of Consciousness: Brain Injury SIG Session](#)

2:30 PM - 4:15 PM

[Neurologic Residency Roundtable](#)

Friday Feb. 11, 2011

4:00 PM - 5:15 PM

[American Board of Physical Therapy Specialties \(ABPTS\): Enhancing Professional Development through Certification](#)

8:00 AM - 11:00 AM

[Transforming Ourselves - Transforming Our World: Teaching Social Responsibility](#)

Saturday Feb. 12, 2011

8:00 AM - 10:00 AM

[Neurology Practice Issues Forum: Practice Based Evidence: What Is It and What Role Does It Play in Neurologic Physical Therapy?](#)

8:00 AM - 10:45 AM

[Brain Power: Strategies to Target Brain Activation for Improved Motor Control](#)

3:00 PM - 4:30 PM

[Wiihab in Action: Improving Quality of Life and Participation for Adults with Lifelong Disabilities](#)

[For all Neurology courses press Control + click to follow link:](#)

**CSM 2011
New Orleans
FEBRUARY 9-12, 2011**

A Big thank you to the BI SIG sponsored speakers at CSM 2010!

Please refer to the below article

Physical Therapy Recommendations for Service Members with Mild Traumatic Brain Injury. Weightman M, Bolgla R, McCulloch K, Peterson M.



GET INVOLVED!

There will be open positions in the Brain Injury Special Interest group for 2011! Are you interested? Contact us before CSM!

- Chair**
- Nominating Committee**
- News Letter Editor**

Contact one of our nominating committee members below!

Sarah Trout, PT, NCS

Aimee E. Perron, PT, DPT, NCS

Carolyn G. Tassini, PT

Literature Update!

Check out the May-June 2010 issue of *The Journal of Head Trauma Rehabilitation* for a fantastic grouping of articles regarding Higher Level Mobility after Traumatic Brain Injury (vol. 25, No. 3). The issue was edited by Karen McCulloch, PT, PhD, NCS and features several wonderful articles including:

Balance, Attention, and Dual-Task Performance During Walking after Brain Injury: Associations with Falls History. McCulloch K, Buxton E, Hackney J, Lowers S.

Evaluation of a Conceptual Framework for Retraining High-Level Mobility Following Traumatic Brain Injury: Two Case Reports. Williams G, Schache A.

Endurance Training and Cardiorespiratory Conditioning After Traumatic Brain Injury. Mossberg K, Amonette W, Masel B.

The relationship Between Aerobic Exercise and Cognition: Is Movement Medicinal? Lobjovich J.

A Case-Oriented Approach Exploring the Relationship Between Visual and Vestibular Disturbances and Problems of Higher-Level Mobility in Persons with Traumatic Brain Injury. Peterson M.

Physical Therapy Recommendations for Service Members with Mild Traumatic Brain Injury. Weightman M, Bolgla R, McCulloch K, Peterson M.

Prepared by Carolyn G. Tassini, PT



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We're on the Web!

Click on link below

www.neuropt.org

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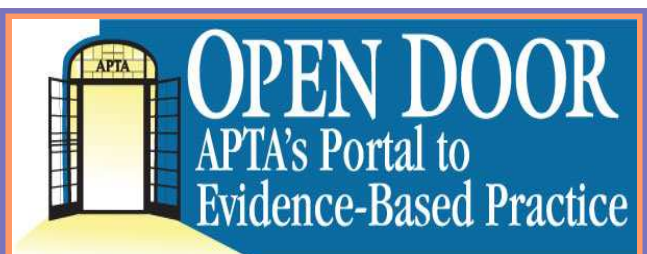
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