Published Study Results: IM for Rehab of Blast Related TBI

Course Description:
Dr. Nelson will present the findings of a recently completed randomized controlled, trial of Interactive Metronome (IM) therapy in the treatment of persisting cognitive symptoms following blast-related traumatic brain injury in a sample of active duty Soldiers. Soldiers were randomly assigned to receive either standard rehabilitation care, or standard care plus Interactive Metronome therapy. Initial findings show that IM therapy significantly improved Attention, Immediate Memory, and Delayed Memory functioning. Indicators of neuroplastic change suggest that brain changes due to IM therapy account for large portions of the variance in neuropsychological test performance. Six month follow-up data are currently being collected. Preliminary results were published in the journal *Neuropsychology* in 2013 with additional publications pending completion of the study and further analysis of electro-cortical and follow-up data. *This course is not offered for contact hours/CEUs.*

Target Audience:
This course welcomes the following professionals who have completed the Interactive Metronome Certification Course.

- Speech and Language Pathologist
- Speech and Language Pathology Assistant
- Audiologist
- Occupational Therapist
- Occupational Therapy Assistant
- Physical Therapist
- Physical Therapy Assistant
- Athletic Trainer
- Licensed Medical, Rehabilitation or Mental Health Professional
- Music Therapist
- Educator

Instructional Level:
Introductory

Learning Outcomes:
Upon completion of this course, participants will be able to:

- Explain the effects of blast related traumatic brain injuryon daily function;
- Discuss specific cognitive functions affected by IM therapy;
- Discuss brain changes related to IM therapy;
- Explain brain-behavior relationships involved in IM therapy.

*Note: This course covers information that pertains to licensed therapists and therapy assistants. OTA and PTA professionals must practice IM under the supervision of a licensed OT or PT.

Specific Learning Outcomes for Speech-Language Pathologists & Audiologists:

- Explain the effects of blast related traumatic brain injury on cognitive-communicative and social/behavioral skills;
- Discuss specific cognitive-communicative functions affected by IM therapy;
- Discuss brain changes related to IM therapy;
- Explain brain-behavior relationships involved in IM therapy.

*Note: This course covers information that pertains to licensed therapists and therapy assistants. SLPA professionals must practice IM under the supervision of a licensed SLP.

Instructor:
Lonnie Nelson, Ph.D.
Dr. Nelson earned his Ph.D. in Clinical Psychology from the University of Arizona in 2004. He completed a postdoctoral fellowship in Rehabilitation Psychology at the University of Washington Harborview Medical Center in 2005. He has worked with the Defense and Veterans Brain Injury Center as a Research Neuropsychologist since 2007. His primary research interests are in the domain of neuroplasticity, neural repair, and health promotion. He is currently an Acting Assistant Professor at the University of Washington School of Public Health, Department of Health Services.

Disclosures:
Instructor Financial Disclosure(s): Dr. Nelson first presented on this topic during the IM Conference 2012 & was compensated for travel & lodging expenses by Interactive Metronome, Inc. He did not receive any form of compensation for the presentation of the same content again in this course. Dr. Nelson does not receive royalties or any form of compensation for the continued publication of this course and does not sell or receive compensation for the sale of Interactive Metronome products.

Instructor Nonfinancial Disclosure(s): Dr. Nelson has conducted independent research on the use of Interactive Metronome technology for blast-related traumatic brain injury. Interactive Metronome provided training and material support for the research, but did not provide funding.

Course Content Disclosure:
The Interactive Metronome, Inc. has developed and patented a licensed technology trademarked as the Interactive Metronome®. (U.S. Patents #4,919,030; #5,529,498; #5,743,744; #6,719,690; other U.S. and foreign patents pending) Interactive Metronome, Inc. is the sole source of the following products: Interactive Metronome®, Gait Mate® and IM Home®. The purpose of this course is solely educational. Because there are no other like-kind products available, this course will only cover information that pertains to the effective and safe use of the above-named products and is not intended to promote the business or product in any way.

Course Origination Date*: 11/13/2013
*Course content is reviewed annually to make sure it remains current and relevant to the practice of Interactive Metronome.

Agenda (60 minutes):
- Speaker introduction & disclosure
- Study design and inclusion/exclusion criteria
- Measures
- Sample Descriptive Statistics
- Intervention and Adherence to Protocol
- Neuropsychological Outcomes
- Electrocortical Markers of Neuroplastic Change
- Summary
- Q&A
- Online post-test & course evaluation

Instructional Methods:
LECTURE, PPT

Contact Hours/CEUs:
This course is not offered for contact hours/CEUs.