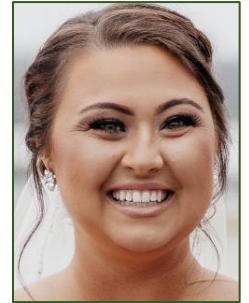


The Brainiac Newsletter

Winter 2022/Spring 2023 [CMH SIG Website](#)

Greetings from Our Cognitive and Mental Health SIG Chair: Alex Alexander, PT, DPT, GCS



Hello Members of CMH SIG,

As the holiday season comes to a close, I just wanted to extend a warm wish to everyone. I hope everyone had time to enjoy with their family and rest and relax and come back rejuvenated to kick things off after the new year with CMH SIG.

I want to extend a welcome to our new Vice Chair, Rashelle Hoffman, PT, DPT, PhD. Rashelle has been a part of the CMH SIG for many years and is a Board-Certified Geriatric Clinical Specialist in Geriatric Physical Therapy. She is an assistant professor at Creighton University. We are excited to have her on board and look forward to all the knowledge and expertise she has to share.

We have had one of our taskforces hard at work working on a cognitive toolkit and it has been approved as a CSM lecture in February of 2023 in San Diego, CA. It is entitled Identifying, Testing, and Adapting Treatment for Individuals with Cognitive Impairment. I am excited for this group to present and share their knowledge with colleagues and bring more awareness to cognitive impairment and specifically, testing and intervention.

Lastly, CMH SIG has a new email! All future correspondence will come from our new SIG email of cognitiveandmentalhealthsig@gmail.com. If you have any questions, concerns, ideas, etc, please don't hesitate to email and of course you can always email me!

Warmly,
Alex Alexander, PT, DPT, GCS
CMH SIG Chair



Passing of the torch...

Welcome to our newest CMH SIG officer:

Rashelle Hoffman, PT, DPT, PhD, GCS

- Dr. Hoffman is an Assistant Professor from Creighton University & a member of the CMH SIG Cognitive Examination Taskforce.
- Thank you to Christy Ross, PT, DPT, GCS for 6 years of service as Vice Chair!



CSM 2023 Presentations and Poster Abstracts: Spotlight on cognitive and mental health related topics

Presentations

Thursday, February 23: 3:00 PM – 5:00 PM

The ABCs of Dementia: ADRD, FTD, LBD, NPH – Which Therapy Approach is Effective?

Nicole Dawson, PT, PhD, GCS; Laura White, PT, MSPT, DScPT; Christy Ross, PT, DPT, GCS; and Morris "Rick" Beato, PT, DPT

**This Presentation is also available On-Demand*

Friday, February 24: 11:00 AM – 1:00 PM

Novel Behavioral Interventions Targeting Cognitive-Motor Neuroplasticity In Older Adults

Tanvi Bhatt, PT, PhD, Susan Hughes, David Marquez and Ulf Bronas

Saturday, February 25: 11:00 AM – 1:00 PM

"Identifying, Testing, and Adapting Treatment for Individuals with Cognitive Challenges"

Christine Childers, PT, PhD; Rasheda Hoffman, PT, DPT, PhD, GCS; Christy Ross, PT, DPT, GCS; and Samantha Stryke, PTA, CBIS, CSRS

Platform Presentations

Performance During Attention-Demanding Walking Conditions in Older Adults With and Without a Fall History

Pei-Chun Kao, Michaela A. Pierro, Daniela M. Gonzalez

Clinician Perspectives on Identifying and Assessing Pain for Community-Dwelling Older Adults With Dementia

Annalisa Na, Justine S. Sefcik, Amy Kwok, Ishan Shah, Molly Hanna Drazin, Emily Gavin, Laura Gitlin

Effect of Dual Tasking During Reactive Balance Control in Older Adults With Mild Cognitive Impairment

Lakshmi Kannan, Jessica Pitts, Tanvi Bhatt

Poster Presentations

Understanding Cognitive Domain Contribution to Reactive Balance Control in Older Adults

Upasana Sahu, Lakshmi Kannan, Rudri Milind Purohit, Jessica Pitts, Tony Szturm, Tanvi Bhatt

Effects of Tai Chi on Depression and Anxiety in Older Adults – a Systematic Review

Gary L. Pina, Bieu Cung, Hao Liu

Characterizing Aging-Related Effects on Balance, Navigation, and Cognitive Performance

Katie Carter, Emma Hilten, Monica Marie Ferrer, Anisha Vasu Kanukolanu, Yasmine Bassil, Michael Robert Borich

*Check out these links for more info on CSM 2023 available through APTA Geriatrics:

CSM Presentations: <https://aptageriatrics.org/csm/>

Platforms: https://journals.lww.com/jgpt/Fulltext/2023/01000/CSM_2023_Platform_Abstracts.12.aspx

Poster Abstracts: https://journals.lww.com/jgpt/Fulltext/2023/01000/CSM_2023_Poster_Abstracts.11.aspx

APTA Combined Sections Meeting
Feb. 23-25, 2023 / San Diego, CA



CMH SIG Cognitive Examination Toolkit is Now Available!

The *NEW Cognitive/Mental Health Toolkit* can help you identify domains of cognition that might be affected, how to screen for them, and how to adapt treatment to serve your clients.

This toolkit has been developed by the CMH SIG Cognitive Examination Taskforce members:

- Christine Childers, PT, PhD
- Rashelle Hoffman, PT, DPT, PhD, GCS
- Samantha Stryke, PTA, CBIS, CSRS
- Christy Ross, PT, DPT, GCS

What the toolkit provides:

- Extensive list of cognitive screening tools and examinations
- Outline of the 6 neurocognitive domains
- How each domain are manifested in clients with neurodegenerative disease and/or have personality or psychological disorders
- A guideline of which domain is most affected in certain diagnoses
- Specific questions to ask clients to investigate possible cognitive domain impairments
- Advice on adaptations to treatment and communication styles based on the affected domain.

This toolkit should be used as a starting point for clinicians to choose appropriate screenings for their clients.

*Check out the new Cognitive Examination Toolkit here: <https://aptageriatrics.org/sig/cognitive-and-mental-health-toolkit/>



Academic Liaison Corner
Disease Spotlight:
Vascular Dementia

Nguyen et
al 2021

Sachdev
2014

Core Features:

- Vascular Dementia is generally considered 2nd most common subtype of neurocognitive disorders
- Vascular cognitive impairment is a term that includes a range of cognitive disorders with cerebrovascular pathology contribution, ranging from mild cognitive impairment to Vascular Dementia
- Prevalence: About 15-20% of all neurocognitive disorder cases
- Types of Vascular Dementia: Mixed Dementia, Subcortical Vascular Dementia, Multi-Infarct Dementia
- Risk factors / Medical History: history of high blood pressure, elevated lipids, cerebrovascular disease, diabetes, or myocardial infarctions, transient ischemic attack, or cerebrovascular accidents
- Risk for developing vascular dementia doubles every 5 years over 65 years old
- Progression of cognitive decline: May appear stepwise, occurring in subtle and often abrupt, rather than gradual, change. Cognitive domain impairments depend on stroke location.
- Symptom presentation (may vary): Confusion, problem solving issues, memory impairment, speech difficulty, mood changes – depression, impaired balance & movement
- Possible gait impairment presentation: Small step gait, or magnetic, apraxic-ataxic or parkinsonian gait; unsteadiness and frequent unprovoked falls

Physical Therapy for Gait, Balance, and Cognition in Individuals with Cognitive Impairment: A Retrospective Analysis



★ Longhurst J, Phan J, Chen E, Jackson S, Landers MR. Physical Therapy for Gait, Balance, and Cognition in Individuals with Cognitive Impairment: A Retrospective Analysis. *Rehabil Res Pract.* 2020;2020:8861004. Published 2020 Nov 3. doi:10.1155/2020/8861004

Objectives

The purpose of this study was to determine if a pragmatic physical therapy (PT) program was associated with improved cognition, gait, and balance in individuals with cognitive impairment. This study investigated these associations for individuals with Alzheimer disease (AD), vascular dementia (VaD), dementia with Lewy bodies (DLB), and mild cognitive impairment (MCI) in order to better characterize outcomes to PT for each diagnostic group.

Methods

Data before and after one month of physical therapy were extracted from patient records (67 with AD, 34 with VaD, 35 with DLB, and 37 with MCI). The mean number of PT sessions over a month was 3.4 (± 1.8). Outcomes covered the domains of gait, balance, and cognition with multiple outcomes used to measure different constructs within the balance and gait domains.

Results

All groups showed improvements in balance and at least one gait outcome measure. Those with MCI improved in every measure of gait and balance performance. Lastly, cognition as measured by Montreal Cognitive Assessment improved in individuals in the AD, VaD, and MCI groups.

Conclusion

While this retrospective analysis is not appropriate for causal inference, results of one month of physical therapy were associated with decreases in gait, balance, and cognitive impairment in individuals with AD, VaD, DLB, and MCI. *Clinical Implications.* While physical therapy is not typically a primary treatment strategy for individuals with cognitive impairment, the results of this study are consistent with the literature that demonstrates improvement from physical therapy for other neurodegenerative diseases. Further clinical and research exploration for physical therapy as a primary treatment strategy in these populations is warranted.



We would love to hear about your good news, too!

To be included in the next edition of *The Brainiac*, for discussion suggestions for the newsletter, or to assist in its development, please send your information to:

Alex Alexander – Chair cognitiveandmentalhealthsig@gmail.com
Rashelle Hoffman – Vice Chair Rashellehoffman@creighton.edu
Christy Ross – Brainiac Newsletter Rossc5@ccf.org

