

**Brenda Jeng, Ph.D.**  
Chicago, IL 60612  
(312) 355-0383 | bjeng@uic.edu

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## **EDUCATION**

- 2022            Ph.D. Rehabilitation Science, University of Alabama at Birmingham
- 2016            M.S. Kinesiology, Adapted Physical Activity, California State University,  
Northridge
- 2013            B.S. Kinesiology, Exercise Science, California State University, Northridge,  
*magna cum laude*
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## **RESEARCH AND PROFESSIONAL POSITIONS**

- 2022-Present    Postdoctoral Fellow, National Multiple Sclerosis Society Mentor-Based  
Fellowship (NMSS MB 2110), Department of Kinesiology and Nutrition,  
University of Illinois Chicago
- 2021-2022       Graduate Fellow, Predoctoral Fellowship (NIH F31HD101281), University of  
Alabama at Birmingham
- 2018-2020       Graduate Training Fellow, Nutrition and Obesity Research Center (NORC)  
Predoctoral Training Fellowship (NIH T32HL105349), University of Alabama at  
Birmingham
- 2017-2018       Graduate Research Trainee, Blazer Graduate Research Fellowship, University of  
Alabama at Birmingham
- 2016-2017       Clinical Research Coordinator, Center of Achievement through Adapted Physical  
Activity, Northridge
- 2014-2016       Clinical Supervisor, Center of Achievement through Adapted Physical Activity,  
Northridge
- 2012-2014       Therapeutic Exercise Staff, Center of Achievement through Adapted Physical  
Activity, Northridge
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## PUBLICATIONS

1. **Jeng B**, Šilić P, Bollaert RE, Sandroff BM, & Motl RW. Physical function across the lifespan in adults with multiple sclerosis: An application of the Short Physical Performance Battery. *Mult Scler Relat Disord*. (Accepted)
2. Soleymani H, **Jeng B**, Abdelmessih B, Cowan R, & Motl RW. Accuracy and precision of actigraphy and SMARTwheels for measuring push counts across a series of wheelchair propulsion trials in non-disabled young adults. *Int J Med Stud*. (Accepted)
3. Zheng P, Huynh TLT, Jones CD, Feasel CD, **Jeng B**, & Motl RW. Validity of the 30-Second Sit-to-Stand Test as a measure of lower extremity function in persons with multiple sclerosis: Preliminary evidence. *Mult Scler Relat Disord*. 2023 Feb 5;71:104552.
4. Silveira SL, **Jeng B**, Cutter G, & Motl RW. Diet, physical activity, and stress among wheelchair users with multiple sclerosis: Examining individual and co-occurring behavioral risk factors. *Arch Phys Med Rehabil*. 2023 Jan;S0003-9993(23)00034-5.
5. **Jeng B**, Huynh TLT, Feasel CD, & Motl RW. Oxygen cost of walking and its relationship with body composition in multiple sclerosis. *Int J Obes (Lond)*. 2022 Dec;47:138-143.
6. **Jeng B**, & Motl RW. No association between body composition and walking outcomes in multiple sclerosis. *Mult Scler Relat Disord*. 2022 Oct;68:104242.
7. **Jeng B**, Šilić P, Huynh TLT, & Motl RW. Sedentary behavior and lower-extremity physical function across the lifespan of adults with multiple sclerosis. *Int J Environ Res Public Health*. 2022;19:12466.
8. Cederberg KLJ, **Jeng B**, Sasaki JE, Schuetz ML, Mathison BG, & Motl RW. Does physical activity timing differentially correlate with symptoms of restless legs syndrome in adults with multiple sclerosis? *Sleep Med*. 2022 Aug;100:120-127.
9. Huynh T, Silveira SL, **Jeng B**, & Motl RW. Association of disease outcomes with physical activity in multiple sclerosis: A cross-sectional study. *Rehabil Psychol*. 2022 Aug;67(3):421-429.
10. Huynh T, **Jeng B**, & Motl RW. Physical activity and vascular comorbidity in Black and White persons with multiple sclerosis: A cross-sectional study. *Disabil Health*. 2022 Jul;15(3):101314.
11. Jones CD, **Jeng B**, Šilić P, & Motl RW. Do device-measured physical activity and sedentary behavior differ by depression symptom status in persons with multiple sclerosis? *Mult Scler Relat Disord*. 2022 Jul;103889.

12. Silveira SL, **Jeng B**, Cutter G, & Motl RW. Perceptions of Physical Activity Guidelines among wheelchair users with multiple sclerosis. *Mult Scler J Exp Transl Clin*. 2022 May;8(2): 20552173221097580.
13. Huynh T, Silveira SL, **Jeng B**, & Motl RW. Physical activity and vascular comorbidity in black and white persons with multiple sclerosis: a cross-sectional study. *Disabil Health*. 2022 Mar;101314.
14. **Jeng B**, Cederberg KLJ, Huynh TLT, Šilić P, Jones CD, Feasel CD, Sikes EM, Baird JF, Silveira SL, Sasaki JE, & Motl RW. Social Cognitive Theory variables as correlates of physical activity in fatigued persons with multiple sclerosis. *Mult Scler Relat Disord*. 2022 Jan;57:103312.
15. Cederberg KLJ, **Jeng B**, Sasaki JE, & Motl RW. Physical activity and sedentary behavior timing in fatigued and non-fatigued adults with multiple sclerosis. *Arch Phys Med Rehabil*. 2022 Jan;S0003-9993(22)00018-1.
16. **Jeng B**, Cederberg KLJ, Lai B, Sasaki JE, Bamman M, & Motl RW. Wrist-based cut-points for physical activity intensity in persons with Parkinson's disease. *Gait Posture*. 2022 Jan;91:235-9.
17. Silveira SL, **Jeng B**, Cutter G, & Motl RW. Diet quality assessment in wheelchair users with multiple sclerosis. *Nutrients*. 2021 Dec;13(12):4352.
18. Cederberg, KLJ, **Jeng B**, Sasaki JE, Sikes EM, Silveira SL, Cutter G, & Motl RW. Demographic, clinical, and symptomatic correlates of subjective sleep quality in adults with multiple sclerosis. *Mult Scler Relat Disord*. 2021 Oct;55:103204.
19. Kidwell A, Cederberg KLJ, **Jeng B**, Sasaki JE, Trost Z, & Motl RW. Perceived injustice in multiple sclerosis: An initial exploratory study. *Rehabil Psychol*. 2021 Aug;66(3):335-343.
20. Silveira SL, Cederberg KLJ, **Jeng B**, Sikes EM, Sandroff BM, Jones CD, & Motl RW. Do physical activity and social cognitive theory variable scores differ across symptom cluster groups in multiple sclerosis? *Disabil Health*. 2021 Jun;29:101163.
21. Cederberg KLJ, **Jeng B**, Sasaki JE, Sikes EM, Cutter GR, & Motl RW. Physical activity and self-reported sleep quality in adults with multiple sclerosis. *Disabil Health*. 2021 Jun;11:101133.
22. Cederberg KL, **Jeng B**, Lai B, Sasaki JE, Bamman M, & Motl RW. Accuracy and precision of wrist-worn actigraphy for measuring steps taken during over-ground and treadmill walking in adults with Parkinson's disease. *Parkinsonism and Relat Disord*. 2021 Jul;88:102-107.

23. Silveira SL, **Jeng B**, Gower BA, & Motl RW. Feasibility, acceptability and preliminary validity of self-report dietary assessment in adults with multiple sclerosis: Comparison with doubly labeled water measured total energy expenditure. *Nutrients*. 2021 Apr;13(4):1198.
24. Silveira SL, Cederberg KLJ, **Jeng B**, Sikes EM, Sandroff BM, Jones CD, & Motl RW. Symptom clusters and quality of life in persons with multiple sclerosis across the lifespan. *Qual Life Res*. 2021 Apr 30(4):1061-1071.
25. Rice IM, **Jeng B**, Silveira SL, & Motl RW. Push-rate threshold for physical activity intensity in persons who use manual wheelchairs. *Am J Phys Med Rehabil*. 2021 Mar;100(3):292-296.
26. Jung T, Katase A, Wagatsuma M, Fujii T, Jung Y, **Jeng B**, Chaparro G. The influence of concurrent cognitive tasks on motor performance in people with traumatic brain injury: a pilot study. *Physiother Theory Pract*. 2020 Nov;9:1-8.
27. **Jeng B**, Cederberg KL, Lai B, Sasaki JE, Bamman M, & Motl RW. Accelerometer output and its association with energy expenditure in adults with Parkinson's disease. *PLOS One*. 2020 Nov 11;15(11):e0242136.
28. **Jeng B**, Sasaki JE, Cederberg KL, Lai B, Bamman MM, & Motl RW. Oxygen cost of walking in persons with Parkinson's disease with mild-to-moderate disability. *Gait Posture*. 2020 Aug 11;82:1-5.
29. **Jeng B**, Cederberg KL, Lai B, Sasaki JE, Bamman M, & Motl RW. Step-rate threshold for physical activity intensity in persons with Parkinson's disease. *Acta Neurol Scand*. 2020 Aug;142(2):145-150.
30. Neal WN, Cederberg KL, **Jeng B**, Sasaki JE, & Motl RW. Is symptomatic fatigue associated with physical activity and sedentary behaviors among persons with multiple sclerosis? *Neurorehabil Neural Repair*. 2020 Jun;34(6):505-511.
31. Cederberg KL, **Jeng B**, Sasaki JE, Braley T, Walters A, & Motl RW. Restless legs syndrome and health-related quality of life in adults with multiple sclerosis. *J Sleep Res*. 2020 Jun;29(3):e12880.
32. Cederberg KLJ, **Jeng B**, Sasaki JE, & Motl RW. Restless legs syndrome, sleep quality, and perceived cognitive impairment in adults with multiple sclerosis. *Mult Scler Relat Disord*. 2020 May;18(43):102176.
33. Lai B, Sasaki JE, **Jeng B**, Cederberg KL, Bamman MM, & Motl RW. Accuracy and precision of three consumer-grade motion during overground and treadmill walking in people with Parkinson disease: cross-sectional comparative study. *JMIR Rehabil Assist Technol*. 2020 Jan;7(1):e14059.

34. Cederberg KLJ, **Jeng B**, Sasaki JE, Braley TJ, Walters AS, & Motl RW. Physical activity, sedentary behavior, and restless legs syndrome in persons with multiple sclerosis. *J Neurol Sci*. 2019 Dec;407: 116531.
35. Motl RW, Sasaki JE, Cederberg KL, & **Jeng B**. Validity of sitting time scores from the International Physical Activity Questionnaire-Short Form in multiple sclerosis. *Rehabil Psychol*. 2019 Nov;64(4):463-468.
36. Baird JF, Cederberg KLJ, Sikes EM, Silveira SL, **Jeng B**, Sasaki JE, Sandroff BM, & Motl RW. Physical activity and walking performance across the lifespan among adults with multiple sclerosis. *Mult Scler Relat Disord*. 2019 Oct;35, 36-41.
37. Motl RW, Sasaki JE, Cederberg KL, & **Jeng B**. Social-cognitive theory variables as correlates of sedentary behavior in multiple sclerosis: Preliminary evidence. *Disabil Health*. 2019 Oct;12(4):622-627.
38. Baird JF, Cederberg KLJ, Sikes EM, **Jeng B**, Sasaki JE, Sandroff BM, & Motl RW. Changes in cognitive performance with age in adults with multiple sclerosis. *Cogn Behav Neurol*. 2019 Sep;32(3):201-7.
39. **Jeng B**, Sasaki JE, Cederberg KL, & Motl RW. Sociodemographic and clinical correlates of device-measured sedentary behavior in multiple sclerosis. *Disabil Rehabil*. 2019 May 16;1-7.
40. **Jeng B** & Motl RW. Oxygen cost of walking in multiple sclerosis: review and future directions. *Curr Trends Neurol*. 2018;12:23-30.
41. **Jeng B**, Sandroff BM, & Motl RW. Energetic cost of walking and spasticity in persons with multiple sclerosis with moderate disability. *NeuroRehabilitation*. 2018 Oct;43(4)483-89.
42. **Jeng B**, Sandroff BM, & Motl RW. Energetic cost of walking and its physiological correlates in persons with multiple sclerosis who have moderate mobility disability. *Arch Phys Med Rehabil*. 2018 Oct;99(10):2038.
43. Lim H, **Jeng B**, Azurdia D, & Jung T. Influence of water depth on energy expenditure during aquatic walking in people post-stroke. *Physiother Res Int*. 2018 May;23(3):e1717.
44. **Jeng B**, Fujii T, Lim H, Vrongistinos K & Jung T. Cardiorespiratory responses to pool floor walking in people post-stroke. *Arch Phys Med Rehabil*. 2018 Oct;99(3):542-7
45. Lai B, **Jeng B**, Jung T, & Vrongistinos K. Post-exercise hypotensive responses following an acute bout of aquatic and overground treadmill walking in people post-stroke: a pilot study. *Top Stroke Rehabil*. 2015 Jun;22(3):231-8.

**Manuscripts Under Review**



The major goal is to examine lower-limb muscle blood flow and oxygenation as possible modifiable correlates of oxygen cost of walking for identifying specific underlying mechanisms that contribute to physiological walking efficiency among persons with multiple sclerosis.

Score: 31      Percentile: 38<sup>th</sup>

MS220190

PI: Jeng, B.

Not Funded

DoD MSRP-EIRA

Title: Vascular Dysfunction and Walking Efficiency in Multiple Sclerosis

The major goal is to compare vascular function between persons with multiple sclerosis and controls and examine the role of vascular function in poor walking efficiency in persons with multiple sclerosis.

Score: 1.6 (0.1)

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## ABSTRACTS AND CONFERENCE PRESENTATIONS

1. **Jeng B**, DuBose NG, Martin TB, Šilić P, Flores VA, Zheng P, & Motl RW. Physical activity levels in multiple sclerosis: An updated systematic review and quantitative synthesis. Podium presentation at 36<sup>th</sup> Annual Meeting of Consortium of Multiple Sclerosis Centers, Aurora, CO, May 2023. (Accepted)
2. **Jeng B**, Sasaki JE, Cederberg KL, Lai B, Bamman MM, & Motl RW. Wrist-based accelerometer cut-points for quantifying moderate-to-vigorous physical activity in Parkinson's disease. Poster presentation at ActiGraph Digital Data Summit, FL, USA, Nov 2022.
3. **Jeng B**, Cederberg KJ, Huynh TLT, Silic P, Feasel CD, Jones CD, Sikes EM, Baird F, Silveira SL, Sasaki JE, & Motl RW. Social-cognitive correlates of physical activity in fatigued and non-fatigued persons with multiple sclerosis. Podium presentation at 35<sup>th</sup> Annual Meeting of Consortium of Multiple Sclerosis Centers, Orlando, FL, Oct 2021.
4. **Jeng B**, Sasaki JE, Cederberg KL, Lai B, Bamman MM, & Motl RW. Weight status and oxygen cost of treadmill walking in persons with Parkinson's disease. Poster presentation at ObesityWeek, NV, USA, Nov 2019.
5. **Jeng B**, Sandroff BM, & Motl RW. Energetic cost of walking and spasticity in persons with multiple sclerosis with moderate disability. Poster presentation at 7<sup>th</sup> Annual Symposium, University of Alabama at Birmingham Center for Exercise Medicine, AL, USA, Sept 2019.
6. **Jeng B**, Sasaki JE, Cederberg KL, & Motl RW. Sociodemographic and clinical correlates of device-measured sedentary behavior in multiple sclerosis. Poster presentation at 33<sup>rd</sup> Annual Meeting of Consortium of Multiple Sclerosis Centers, WA, USA, May 2019.
7. **Jeng B**, Sandroff BM, & Motl RW. Energetic cost of walking and spasticity in persons with multiple sclerosis with moderate disability, 6<sup>th</sup> Annual Symposium. Poster

presentation at University of Alabama at Birmingham Center for Exercise Medicine, AL, USA, Sept 2018.

8. **Jeng B**, Sandroff BM, & Motl RW. Energetic cost of walking and spasticity in persons with multiple sclerosis with moderate disability, 2<sup>nd</sup> Annual Symposium. Poster presentation at University of Alabama at Birmingham Center for Disability Health and Rehabilitation Science, AL, USA, June 2018.
9. **Jeng B**, Sandroff BM, & Motl RW. Energetic cost of walking and its physiological correlates in multiple sclerosis. Poster presentation at 32<sup>nd</sup> Annual Meeting of Consortium of Multiple Sclerosis Centers, TN, USA, May 2018.
10. **Jeng B**, Sandroff BM, & Motl RW. Energetic cost of walking, peak power output, and peak oxygen consumption in people with multiple sclerosis. Poster presentation at 5<sup>th</sup> Annual Symposium, University of Alabama at Birmingham Center for Exercise Medicine, AL, USA, Sept 2017.
11. **Jeng B**, Fujii T, Owens M, Tolentino D, Narasaki-Jara M, & Jung T. Aquatic walking in individuals post-stroke. Podium presentation at North American Federation of Adapted Physical Activity, AB, CAN, Sept 2016.
12. **Jeng B**, Lim H, Fujii T, Todd T, Narasaki-Jara M, Vrongistinos K, & Jung T. Energy expenditure of aquatic walking in individuals post-stroke. Poster presentation at 63<sup>rd</sup> Annual Meeting, American College of Sports Medicine, MA, USA, Jun 2016.
13. Lai B, **Jeng B**, Narasaki-Jara M, Vrongistinos K, & Jung T. Post-exercise hypotensive responses following a single bout of aquatic and overground treadmill exercise in people post-stroke. Poster presentation at 5<sup>th</sup> International State-of-the-Art Congress: Rehabilitation: Mobility, Exercise & Sports, Groningen, the Netherlands, May 2014.

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## TEACHING EXPERIENCE

2018	Guest Lecturer, Department of Physical Therapy, University of Alabama at Birmingham Topics in Rehabilitation Science
2016-2017	Instructor, Department of Kinesiology, California State University, Northridge Applications of Motor Behavior Principles Adapted Therapeutic Exercise Principles and Applications and Lab Biomechanics Lab
2014-2016	Teaching Assistant, Department of Kinesiology, California State University, Northridge



Adapted Therapeutic Exercise  
Adapted Aquatic Exercise  
Adapted Therapeutic Exercise Principles and Applications Lab  
Applications of Motor Behavior Principles Lab

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## **CERTIFICATIONS/SPECIALIZED TRAINING**

Neurostatus Level C Certification (Expanded Disability Status Scale), American Heart Association Basic Life Support (CPR and First Aid) Certification, NIH CITI Human Subjects & Rigor, Reproducibility & Transparency, Parvo Medics TrueOne 2400, Vyair Medical Oxycon, COSMED K4b2 and K5, GE Lunar Prodigy Primo dual-energy x-ray absorptiometry, ActiGraph ActiLife, Hitachi ALOKA Alpha 7, QUIPU Cardiovascular Suite, Finapres Finometer PRO, SPSS Statistics, SAS, RStudio, Endnote

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