

PWR!Moves®

Therapist Certification Workshop

Date

February 14-15, 2026

Location

Delivered via Zoom

EARLY START / Eastern Time

Workshop Fee

\$695 per person

Discounts available for groups of 2 or more



What will you learn?

- How each of the Basic 4 PWR!Moves® provides you a PD-specific method of deconstructing and then retraining complex everyday movements (functions / ADL)
- How you can use PWR!Moves® to target specific Parkinson's symptoms, including rigidity, bradykinesia, incoordination, and reduced self-awareness
- How to implement Exercise4BrainChange® principles to achieve optimal performance, intensity and motor-cognitive challenge for your clients with Parkinson disease
- How to develop individualized treatment plans across disease severity which integrate progressive aerobic exercise with skilled exercise to enhance neuroplasticity, learning and the loss of automaticity (functional mobility).

Who is eligible?

- Physical Therapists, Physical Therapy Assistants
- Occupational Therapists, Occupational Therapy Assistants
- PT, PTD, PTA, OT, OTD, OTA students

For additional information see the
PWR! Workshop registration page



501(C)3 Non-Profit Organization

Are continuing education hours offered?

For details see the continuing education information page at
<https://www.pwr4life.org/ceu-information/>

Earn 14 -16.5 contact hours



PWR!Moves® Therapist Certification

Workshop Agenda: Day 1

My Time	Eastern Time	Topic
	8:00 am	<ul style="list-style-type: none"> Workshop Logistics, Getting to Know You, Materials and Daily Agenda Overview Introduction to PWR!Moves® Curriculum Goals and Retrain Functional Mobility Framework
	8:25 am	Designing and Implementing PD-specific Interventions <ul style="list-style-type: none"> Understanding Basal Ganglia Circuits and Symptoms Practice Essentials <ul style="list-style-type: none"> PD-Specific Skill Training - PWR!Moves® Multi-Symptom targeted approach
	9:15 am	Group Practicum: Level 1 Deconstructing Function <ul style="list-style-type: none"> Basic 4 PWR!Moves® in Standing, Sitting, All Fours, Prone & Supine Prepare, Activate, Boosts Connect to PD symptoms Connect to functional application
	10:00 am	Break
	10:15 am	Group Practicum: Level 1 Deconstructing Function <ul style="list-style-type: none"> PWR!Moves® Optimizing Quality
	11:15 pm	Long Break
	12:00 pm	Faculty Demonstrations with People with Parkinson's (PWP) – Level 1 <ul style="list-style-type: none"> Live demonstrations of faculty working with people with PD Use handout to document treatment of volunteers
	1:10 pm	Group Discussion and Breakout Session – Level 1 <ul style="list-style-type: none"> Debrief live demonstrations In breakout groups, use assignments to demonstrate clinical decision-making and share solutions with whole group
	2:20 pm	Break
	2:35 pm	Group Practicum: Level 2 Flows <ul style="list-style-type: none"> Debrief Level 1 / Intro to Level 2 Basic PWR!Moves® Flows Overground Flows (Walk, Sit, Floor) Vertical Mobility Flows (Transitions)
	4:10 pm	Group Practicum: Level 2 Mobility Flows (cont.) <ul style="list-style-type: none"> Introduction to Multidirectional Flows (Stand, Sit) Functionality Flows
	4:35 pm	Group Breakout Session – Level 1-2 Progressions <ul style="list-style-type: none"> In breakout groups, use assignments to demonstrate clinical decision-making and share solutions with whole group
	4:55 pm	End of Day 1 Review
	5:00 pm	End

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Workshop Agenda: Day 2

My Time	Eastern Time	Topic
	8:00 am	Share your PWR! Pearls from Day 1
	8:10 am	Applying Exercise4BrainChange® Principles to PWR!Moves®
	9:25 am	Group Practicum: Review PWR!Moves® Level 1 & Level 2 <ul style="list-style-type: none"> Prepare, Activate, Flows, and Boosts Advanced Positions
	10:10 am	Group Practicum & Faculty Demonstrations <ul style="list-style-type: none"> Boost Progressions (i.e., Breathe, Hands, Eyes, Voice, Face)
	10:35 am	Break
	10:50 am	Group Practicum: Level 3 Task-Specific Progressions <ul style="list-style-type: none"> Positional / Vertical / Overground
	11:45 am	Long Break
	12:30 pm	Group Practicum: Level 1-2-3 Progressions = Putting it Together <ul style="list-style-type: none"> Live Faculty Demonstrations OR Video Case Studies Implementing the Retrain Functional Mobility Model in Rehabilitation with Specific Goals
	1:30 pm	Discussion on Dosage and Assessment
	2:05 pm	Video Case Studies <ul style="list-style-type: none"> Longitudinal Plan of Care Advanced Examples of Intervention
	2:45 pm	Exercise4BrainChange® Principles: Emotional Engagement
	3:05 pm	<ul style="list-style-type: none"> Rehabilitation to Community and Back: New Paradigms Building your local PWR!Moves® networks as a PWR!Moves® Certified Professional
	3:20 pm	Q & A
	3:30 pm	End of Day 2

Module	Time to Complete*
About PWR!	25 minutes
Hot Topics – Part 1	15 minutes
Hot Topics – Part 2	15 minutes
Exercise as Medicine for PD – Indications Part 1	15 minutes
Exercise as Medicine for PD – Indications Part 2	15 minutes
Exercise as Medicine for PD Practice Essentials Part 1	25 minutes
Exercise as Medicine for PD Practice Essentials Part 2	35 minutes

****Total anticipated completion time 2.5 hours***

- You may complete this prework in multiple sittings and it is designed to be flexible to fit your schedule.
- There will be brief knowledge checks embedded within this presentation
- The PWR!Moves® Therapist workshop is a CE course, and you will be asked to complete any part of the prework that is missing before PWR! can issue your certificate of completion.

The PWR!Moves® curriculum is an extension of Dr. Farley's pioneering research in whole-body amplitude training using a singular attentional focus to target bradykinesia. But now, therapists will use different methods of instruction for a multi-symptom approach. Whole-body movement training is replaced with targeted whole-body functional skill-training with the goal to preserve functional mobility, functional fitness and participation. Instead of a strict protocol, therapists will be able to design and implement a flexible intervention framework that allows for clinical reasoning, personalization, adaptation and learning principled motor-cognitive progressions across disease severity. Finally, the curriculum is evidenced-informed and designed to be updated when new research becomes available.

To guide physical therapists in how to develop comprehensive plans of care that retrain functional mobility we have created a motor learning framework with three training levels that progress in difficulty and complexity (i.e., part to whole practice) and provide different methods of instruction to address multiple symptoms of PD. In Level 1, functional mobility is deconstructed into four fundamental skills (Basic 4 | PWR!Moves®) that address motor control deficits related to axial extension, weight shifting, axial mobility, and transitions. The focus is on two instructional methods: Prepare, the mindful rehearsal of each of these skills in different positions using whole-body large amplitude movements to target rigidity; and activate, the progression of these skills into high-effort repetitive "exercise" to target bradykinesia and strength. In Level 2, the focus shifts to rebuilding action sequences using these basic skills to simulate meaningful multidirectional overground movements and transitions (mobility) and daily physical activities (functionalities); an instruction method we call Flow to target incoordination and balance. In Level 3, therapists use Level 1 & 2 skills to target goals and to retrain personalized functional mobility goals determined in their rehabilitation plan of care. Throughout the part to whole, retrain functional mobility framework, therapists will learn to skillfully apply evidenced- informed learning techniques to exploit goal-directed and habitual pathways to increase success in real-life functional mobility conditions.

Recent advances in Parkinson disease (PD) basic and clinical science research suggest both physical rehabilitation and exercise have symptomatic benefits, increase the efficacy of antiparkinsonian medication, and result in motor and cognitive improvements. However, maintenance of physical activity and exercise habits is necessary to slow the motor and cognitive deterioration and lower mortality. Our goal is to prepare PD-specialized physical and occupational therapists to collaborate with their local PD-specialized exercise professionals and to include them as part of their clients' healthcare team to keep persons with PD moving back and forth from rehab to exercise and back to rehab for life. We believe that by focusing on the same fundamental PD-specific skills and methods of training in rehab and group exercise, it may be possible to extend the benefits of rehabilitation and reap the additive and complementary benefits of group exercise programs necessary to slow motor and cognitive deterioration and lower mortality.

Upon successful completion of this workshop, participants will be certified as PWR!Moves® Certified Therapists for three years.

- Lectures that allow time for questions and response to chat, participants share take-home points with each other on Day 2 AM to highlight what was most significant to their practice
- Interactive practicums with faculty whole group instruction to practice the PWR!Moves® fundamentals that include face to face demonstrations and feedback (via zoom) with time for integrated questions and answers throughout the practicum.
- Interactive faculty instruction to show modifications (adaptations, progressions) with time for Q&A and feedback
- Faculty debriefs with chat and time to answer questions and discuss highlights.
- Live demos of faculty working with volunteers with PD of varying disease severity
- Faculty debrief of the volunteer demo to problem-solve, discuss clinical reasoning for intervention rationale and patient management, identify symptoms and modifications performed, and allow time for Q&A
- Break out session to learn from peers while problem solving their “next day” treatment session. Each group will report their consensus treatment ideas and provide their rationale to the whole group for further discussion and problem solving
- Pre-recorded videos of PWP to illustrate different constructs and treatment ideas
- Pre-recorded video cases (n=4) showing therapists implementing the curriculum with people with PD

Upon completion of the course, participants will be able to:

1. Discuss recent hot topics in Parkinson disease related to etiology, heterogeneity, and prevalence.
2. Recognize motor and non-motor symptoms and how they interfere with function and present barriers to all types of physical activity.
3. Explain the significance of exercise that targets prevention, disease correction, disease-modification vs. symptoms of PD.
4. Summarize recent advances in basic and clinical neuroscience that have brought exercise to the forefront in PD treatment as it relates to progressive aerobics and PD-specific skill training.
5. Explain how the Basic 4 PWR!Moves® target motor control skills become impaired in people with PD and interfere with functional mobility.
6. Perform the Basic 4 PWR!Moves® in 5 positions: prone, supine, all fours, sitting, standing and be able to adapt and progress while optimizing quality of practice.
7. Describe how the curriculum may be personalized to differentially target multiple PD symptoms, including rigidity, bradykinesia, incoordination, attention and executive function.
8. Effectively use PWR!Moves® Boosts with PWP as a stand-alone tool or as a component integrated into interventions along with other PWR!Moves® exercises.
9. Effectively apply Exercise4BrainChange® principles to achieve optimal motor/cognitive challenge for your clients with Parkinson disease.
10. Develop treatment plans which integrate PWR!Moves® and progressive aerobic training tailored to individuals with PD with different disease severities.
11. Explain the significance of implementing the PWR!Moves® curriculum as a foundation for shared goals and bi-directional referrals for life.



Becky G. Farley, PT, MSPT, PhD

Dr. Becky Farley is a physical therapist, neuroscientist, Parkinson exercise specialist, Chief Scientific Officer and Founder of Parkinson Wellness Recovery | PWR!. She received a PhD in Neuroscience from the University of Arizona, a Master of Science in Physical Therapy from the University of North Carolina, and a Bachelor of Physical Therapy from the University of Oklahoma. She is a published author on exercise for people with Parkinson disease and gives public and medical seminars worldwide. Her postdoctoral research investigated the muscle activation deficits underlying bradykinesia in people with PD. She was awarded, and completed, an R21 NIH-funded randomized clinical trial to establish the benefits of LSVT BIG®, the first

whole-body, amplitude- focused, physical and occupational therapy exercise approach for individuals with PD. Dr. Farley also created PWR! Moves, a more flexible Parkinson-specific exercise approach that directly targets the training of amplitude into building blocks of function. Each building block counteracts a primary motor control deficit shown by research to interfere with everyday mobility. Dr. Farley has been training therapists and fitness professionals for the last 14 years and is now focusing on publishing data from the Tucson-based PWR!Gym and integrating new research into PWR!Moves® workshops and PWR!Gym programs. She believes lifelong access to integrated rehabilitation and community exercise and wellness programming is necessary to optimize and perpetuate functional mobility benefits and to slow disease progression.



Jennifer Bazan-Wigle, PT, DPT, CEEAA®

Jennifer Bazan-Wigle has worked in neurological rehabilitation for the entirety of her physical therapy career. She is currently a physical therapist at Parkinson Wellness Recovery's PWR!Gym in Tucson, AZ, where she specializes in one-on-one rehabilitation and group exercise instruction with people with Parkinson disease. Since 2013, she has focused on honing her expertise in treating the movement disorder and Parkinson's population, emphasizing freezing of gait and advanced PD. Jennifer is a PWR! Moves Certified Therapist, PWR!Moves® Certified Instructor, and a Certified Exercise Expert for the Aging Adult (CEEAA). Jennifer has delivered community, academic, and peer-reviewed presentations on Parkinson disease in the

US and internationally. As an integral part of the NeuroFit faculty, Jennifer has worked closely with Dr. Becky Farley to develop course content for PWR!Moves® Therapist and Instructor Training and Certification Workshops, and has delivered over 70 continuing education workshops, across the US and world. In doing so, Jennifer has helped thousands of physical therapists, occupational therapists, and fitness professionals implement evidence-based rehabilitation and group exercise for people with Parkinson disease.



Shelley Hockensmith, PT, DPT

Shelley Hockensmith is a physical therapist with over 20 years of experience in outpatient neurological rehab settings. She graduated from the University of Evansville with her MPT in 2003 and earned her transitional DPT from A.T. Still University in 2025. Shelley has been a Board Certified Neurologic Clinical Specialist since 2008. She has experience in private practice and hospital-based multi-disciplinary neurologic teams working with people with neurological disorders such as stroke, multiple sclerosis, brain injuries, spinal cord injuries, and movement disorders. She developed an interest in vestibular rehab and was fortunate to work with a team of audiologists and physical therapists in a

specialized vestibular and balance disorder clinic. As an avid believer in the power of exercise for people with Parkinson Disease, she became certified in LSVT BIG in 2007, attended one of the first PWR!Moves workshops, and eventually began working at the PWR!Gym in 2019 as a PWR! Moves Certified Therapist. She joined the PWR!Moves faculty in 2022.

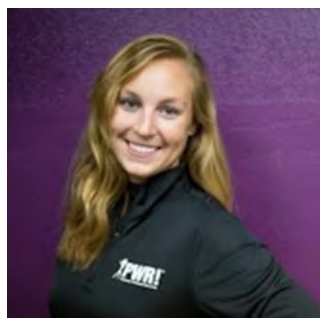


Maria Allen, PT

Certificate of Advanced Competency in Home Health

Maria has over 35 years of experience as a physical therapist treating people with neurological disorders, primarily severe brain injury, stroke, and vestibular dysfunction. She began to focus on working with the Parkinson's population in 2011. After earning her LSVT BIG certification, she became a PWR!Moves® Certified Therapist in 2013 and PWR!Moves® Certified Instructor in 2014. She began attending Parkinson disease related conferences, including Allied Team Training for Parkinson's (ATTP) in 2014, the 19th International Congress of Parkinson's Disease and Movement Disorders in 2015, and the World Parkinson

Congress in 2016. She had the privilege of volunteering at the PWR! Retreat in both 2015 and 2016. She developed and currently serves as Coordinator of a multidisciplinary Parkinson Wellness Program for a home health company serving the Central Coast area of California, which now serves over 260 PWP each year. She recently earned her Certificate of Advanced Competency in Home Health. She has been assisting with PWR!Moves® Therapist and Instructor Training and Certification Workshops since 2016. As a Home Health Consultant for PWR!, she has been instrumental in the development and teaching of our home health focused PWR!Moves® Therapist Training and Certification Workshops across the country. In March 2019, she joined the NeuroFit faculty to teach PWR!Moves® Therapist Workshops with more regularity. While not traveling the US teaching, Maria works closely with her local Parkinson Disease community and serves as the Board Advisor and Education Chair for the Central Coast Parkinson Association and as an Advisor for a group of Cal Poly, San Luis Obispo students-turned-entrepreneurs who are developing a new device for freezing of gait.



Emily Borchers PT, DPT

Emily Borchers is a physical therapist with almost 10 years of experience working with people with Parkinson disease throughout her career. After graduating from the Ohio State University with her DPT in 2014, she began working as a physical therapist at the PWR! Gym in Tucson, AZ where she developed a passion for helping people with Parkinson disease. In her 7 years of working at the PWR! Gym, she specialized in providing one-on-one rehabilitation and group exercise instruction for people with Parkinson disease, assisted with research conducted at the PWR! Gym including a peer-reviewed publication and was Physical Therapy Manager where she learned how to navigate Medicare reimbursement issues to

meet the ongoing rehabilitation needs of people with Parkinson disease. Emily also has experience working with people with Parkinson disease and other neurological conditions including stroke, brain injury, and spinal cord injury in the inpatient rehab setting as part of an interdisciplinary team. She now works at Banner Alzheimer's Institute in Tucson, AZ where she continues to develop her skills in working with people with Parkinson disease and other cognitive diseases including Alzheimer's and Lewy Body Dementia for outpatient rehabilitation services. She joined the PWR! Faculty in 2023. Emily is passionate about empowering people with Parkinson disease and implementing a proactive approach to ongoing rehabilitative and exercise services for improved quality of life.



Kristina Dorkoski, PT, DPT, CEEAA® Board Certified Neurologic Clinical Specialist

Dr. Kristina Dorkoski is a physical therapist, Board-Certified Neurologic Clinical Specialist, Certified Exercise Expert for Aging Adults, Professional Yoga Therapist, and certified Pilates instructor. Dorkoski specializes in the rehabilitation of adults with Parkinson's disease and vestibular dysfunction. With over 20 years of clinical experience, she serves as lead therapist and mentor on the neurologic team at Allied Services Heinz Rehab outpatient center in Wilkes-Barre, PA. Dorkoski's treatment philosophy is to provide evidence-based, "whole person" care. She enjoys coupling this approach with the advanced technologies available

at her facility. Dorkoski earned her BS in health science and MS in physical therapy from Misericordia University, doctorate in physical therapy from Temple University, and Certificate in Vestibular Rehabilitation from the American Physical Therapy Association. She is an LSVT BIG® and PWR! Moves® Certified Therapist and past PWR! Retreat volunteer. Dorkoski is a long-term adjunct faculty member at Misericordia University, where she instructs neuromuscular labs and a special practices course on the use of Pilates and Medical Therapeutic Yoga® in rehabilitation. Dorkoski has taught continuing education courses for the Pennsylvania Physical Therapy Association and appeared as an expert panelist on public television programs. Additionally, Dorkoski is a 2022 Parkinson's Foundation Community Grant awardee and facilitates her local Parkinson's support group.



Claire Cronenweth PT, DPT, NCS

Claire is a Board Certified Neurologic Clinical Specialist PT with a passion for helping people with Parkinson's disease. She earned her doctorate in physical therapy from University of Southern California in 2017, and has worked with people with Parkinson's Disease since that time. Claire completed the Schmidt Movement Disorders Fellowship through Re+Active Physical Therapy in 2019, where she developed expert skills and strategies to help people with Parkinson's Disease and other complex movement disorders including Dystonia and FND.

After completion of her fellowship training she earned her Neurologic Clinical Specialist Certification and has since dedicated her career and business to helping people with Parkinson's Disease stay mobile and active through evidence-based exercise and interventions. Her experience spans from outpatient clinics to mobile outpatient care, home health, and teaching PD specific group exercise classes for all levels of the disease process. Claire currently lives in Denver where she runs her own business seeing individuals with Parkinson's Disease and leading group classes.



Rachel Gibson, PT, DPT, NCS

Board Certified Neurologic Clinical Specialist

Rachel has been a physical therapist working primarily with neurological patients for four years. She graduated from Indiana University Indianapolis with her Doctorate of Physical Therapy in 2021 and went on to complete a neurologic residency through Ohio Health and Ohio University after graduation. Since completing her residency and passing her Neurologic Clinical Specialist exam, she has worked for UC Health as an outpatient physical therapist in Cincinnati, OH with special clinical interests including working with people with Parkinson's disease, people with vestibular diagnoses, and people with ALS. She is currently

the co-chair of the UC Health vestibular therapy shared governance and is a physical therapist representative for the ALS multidisciplinary clinic. She is certified as an American Physical Therapy Association clinical instructor. She enjoys donating her time at the UC Health stroke support group hosting large and small group discussions related to life changes post-stroke. She originally certified as a PWR!Moves Certified Therapist in 2022 and re-certified in 2025. She is passionate about the tangible influence that exercise can make in the lives of people with Parkinson's and is eager to share the impact that can be made across all stages of the disease. She is excited to be a new member of the PWR! Faculty (2025.)



Parkinson Wellness Recovery | PWR! Faculty



Angee Ludwa, PT, MPT

Angee Ludwa is a physical therapist with an extensive professional tenure spanning over 26 years, predominantly within the domain of outpatient neurological care. Her expertise encompasses the comprehensive treatment of individuals diagnosed with various conditions, including Traumatic Brain Injury (TBI), Stroke, Multiple Sclerosis (MS), and Movement Disorders. Since 2007, Angee has directed her career focus towards the specialized care of individuals with Parkinson's disease. Notably, she has initiated and overseen the establishment of multiple Parkinson's disease-specific programs within her local community. Angee holds certifications in LSVT BIG and PWR! Moves, and she has actively contributed to the PWR! retreat as a volunteer for

several years. Angee has undertaken the Allied Team Training for Parkinson's course (ATTP) and assumed the role of Ambassador for the Davis Phinney Foundation since 2019. Committed to community engagement, she teaches various community-based exercise classes virtually and in person including PWR! and RSB. Recently, she assumed the role of Director of Exercise at the Michigan Parkinson Foundation on a part-time basis, concurrently serving on their Professional Advisory Board. In addition to her administrative role, Angee remains steadfast in her commitment to providing personalized care to individuals with Parkinson's disease in their homes. Notably, her dedication to this cause has been further fueled by personal experience when her mother was diagnosed with Parkinson's in 2020. This personal connection serves as a driving force, compelling Angee to continually expand her knowledge and share her expertise with others in the Parkinson's community.

1. Ahlskog JE. Aerobic Exercise: Evidence for a Direct Brain Effect to Slow Parkinson Disease Progression. *Mayo Clinic Proceedings*. 2018;93(3):360-372. doi:10.1016/j.mayocp.2017.12.015
2. Alberts JL, Phillips M, Lowe MJ, et al. Cortical and motor responses to acute forced exercise in Parkinson's disease. *Parkinsonism & Related Disorders*. 2016;24:56-62. doi:10.1016/j.parkreldis.2016.01.015
3. Domingos J, Dean J, Fernandes JB, Massano J, Godinho C. Community Exercise: A New Tool for Personalized Parkinson's Care or Just an Addition to Formal Care? *Front Syst Neurosci*. 2022;16(June):1-8. doi:10.3389/fnsys.2022.916237
4. Farley BG, Koshland GF. Training BIG to move faster: the application of the speed-amplitude relation as a rehabilitation strategy for people with Parkinson's disease. *Experimental Brain Research*. 2005;167(3):462-467. doi:10.1007/s00221-005-0179-7
5. Farley BG, Fox CM, Ramig LO, McFarland DH. Intensive Amplitude-specific Therapeutic Approaches for Parkinson's Disease. *Topics in Geriatric Rehabilitation*. 2008;24(2):99-114. doi:10.1097/01.tgr.0000318898.87690.0d
6. Ferrazzoli D, Ortelli P, Cucca A, Bakdounes L, Canesi M, Volpe D. Motor-cognitive approach and aerobic training: a synergism for rehabilitative intervention in Parkinson's disease. *Neurodegener Dis Manag*. 2020;10(1):41-55. doi:10.2217/nmt-2019-0025
7. Ferrazzoli D, Ortelli P, Madeo G, Giladi N, Petzinger GM, Frazzitta G. Basal ganglia and beyond: The interplay between motor and cognitive aspects in Parkinson's disease rehabilitation. *Neuroscience & Biobehavioral Reviews*. 2018;90:294-308. doi:10.1016/j.neubiorev.2018.05.007
8. Frazzitta G, Maestri R, Bertotti G, et al. Intensive Rehabilitation Treatment in Early Parkinson's Disease. *Neurorehabilitation and Neural Repair*. 2014;29(2):123-131. doi:10.1177/1545968314542981
9. Harpham C, Gunn H, Marsden J, Connolly L. Co-Creating a Feasible, Acceptable and Safe Home-Based High-Intensity Interval Training Programme for People with Parkinson's: The HIIT-Home4Parkinson's Study. *Int J Environ Res Public Health*. 2023;20(9). doi:10.3390/ijerph20095671
10. Hortobágyi T, Sipos D, Borbély G, et al. Detraining Slows and Maintenance Training Over 6 Years Halts Parkinsonian Symptoms-Progression. *Front Neurol*. 2021;12(November):1-13. doi:10.3389/fneur.2021.737726
11. Hirsch MA, Farley BG. Exercise and neuroplasticity in persons living with Parkinson's disease. *Eur J Phys Rehabil Med*. 2009;45(2):215-229.
12. Huang X, Dong K, Gan C, Xu Z, Lei D, Dong X, Liu H, Chen X. Effect of Rhythmically Cued Exercise Interventions on Functions in Patients With Parkinson Disease: A Meta-Analysis. *Phys Ther*. 2024 Mar 1;104(3):pzad158. doi: 10.1093/ptj/pzad158. PMID: 37962936.
13. Johansson ME, Cameron IGM, Van der Kolk NM, et al. Aerobic Exercise Alters Brain Function and Structure in Parkinson's Disease: A Randomized Controlled Trial. *Ann Neurol*. 2022;91(2):203-216. doi:10.1002/ana.26291
14. Langeskov-Christensen M, Franzén E, Grøndahl Hvid L, Dalgas U. Exercise as medicine in Parkinson's disease. *J Neurol Neurosurg Psychiatry*. 2024;95(11):1077-1088. Published 2024 Oct 16. doi:10.1136/jnnp-2023-332974
15. Leech KA, Roemmich RT, Gordon J, Reisman DS, Cherry-Allen KM. Updates in Motor Learning: Implications for Physical Therapist Practice and Education. *Phys Ther*. 2022;102(1):pzab250. doi:10.1093/ptj/pzab250
16. Marinelli L, Quartarone A, Hallett M, Frazzitta G, Ghilardi MF. The many facets of motor learning and their relevance for Parkinson's disease. *Clinical Neurophysiology*. 2017;128(7):1127-1141. doi:10.1016/j.clinph.2017.03.042
17. Moriarty TA, Mermier C, Kravitz L, Gibson A, Beltz N, Zuhl M. Acute Aerobic Exercise Based Cognitive and Motor Priming: Practical Applications and Mechanisms. *Frontiers in Psychology*. 2019;10. doi:10.3389/fpsyg.2019.02790
18. Oosterhof TH, Schootemeijer S, de Vries NM. Clinical Trial Highlights – Interventions Promoting Physical Activity in Parkinson's Disease. *J Parkinsons Dis*. 2023;13(3):311. doi:10.3233/JPD-239001
19. Radder DLM, Lígia Silva de Lima A, Domingos J, et al. Physiotherapy in Parkinson's Disease: A Meta-Analysis of Present Treatment Modalities. *Neurorehabil Neural Repair*. 2020;34(10):871. doi:10.1177/1545968320952799
20. Sacheli MA, Murray DK, Vafai N, et al. Habitual exercisers versus sedentary subjects with Parkinson's Disease: Multimodal PET and fMRI study. *Movement Disorders*. 2018;33(12):1945-1950. doi:10.1002/mds.27498
21. Sacheli MA, Neva JL, Lakhani B, et al. Exercise increases caudate dopamine release and ventral striatal activation in Parkinson's disease. *Mov Disord*. 2019;34(12):1891-1900. doi:10.1002/mds.27865
22. Schootemeijer S, Darweesh SKL, De Vries NM. Clinical Trial Highlights - Aerobic Exercise for Parkinson's Disease. *J Parkinsons Dis*. 2022;12(8):2297-2306. doi:10.3233/JPD-229006

23. Sturkenboom IHWM, Talebi AH, Maas BR, de Vries NM, Darweesh SKL, Kalf JG. Specialized Allied Health Care for Parkinson's Disease: State of the Art and Future Directions. *J Parkinsons Dis.* 2024;14(s1):S193-S207. doi: 10.3233/JPD-230307. PMID: 39031380; PMCID: PMC11380253.
24. Wulf G, Lewthwaite R. Optimizing performance through intrinsic motivation and attention for learning: The OPTIMAL theory of motor learning. *Psychonomic Bulletin & Review.* 2016;23(5):1382-1414. doi:10.3758/s13423-015-0999-9

PWR! uses the latest research to inform our programs, workshops, and resources. The full body of research referenced during the workshop is updated regularly and can be viewed at:

pwr4life.org/parkinson-research