PWR!Moves® Therapist Certification Workshop

Date

June 24-25, 2023

Location

Delivered via Zoom Arizona Time zone

Workshop Fee

\$650 per person

Discounts available for groups of 2 or more



What you will learn?

- How you can use PWR!Moves to target specific Parkinson's symptoms, including rigidity, bradykinesia, incoordination, and reduced self-awareness
- ♦ How each of the Basic 4 PWR!Moves® provides you a PD-specific means of targeting general fitness problems related to flexibility, strength, coordination, balance, and posture
- How to implement Exercise 4BrainChange techniques to achieve optimal performance and learning for your clients with Parkinson disease
- How to develop treatment plants which integrate PWR!Moves and progressive aerobic training tailored to individuals with different disease severities

Who is eligible?

- Physical Therapists, Physical Therapy Assistants
- Occupational Therapists, Occupational Therapy Assistants
- ◆ PT, PTA, DPT, OT, OTA students



Are continuing education hours offered?

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

Earn15 -17.5 contact hours



PWR!Moves® Therapist Certification Virtual Workshop Agenda: Day 1

| My Time | AZ Time | Topic |
|---------|----------|---|
| | 8:00 am | Introduction and review of workshop materialsAbout PWR! |
| | 8:30 am | Hot topics in Parkinson disease (PD) |
| | 9:00 am | Review Basal Ganglia Circuits & Symptoms Exercise as medicine: Indications |
| | 9:45 am | Break |
| | 10:00 am | Exercise as medicine: Practice essentials—Exercise |
| | 10:50 am | Exercise as medicine: Practice essentials—PD Specific |
| | 11:00 am | Group Practicum: Level 1 Deconstructing Function Basic 4 PWR!Moves in Standing, Sitting, All Fours, Prone & Supine Prepare, Activate, and add Boosts Connect to PD symptoms Connect to functional application PWR!Moves Optimizing Quality |
| | 12:45 pm | Long Break |
| | 1:30 pm | Faculty Demonstrations with people with Parkinson's (PWP) Basic 4 PWR!Moves • Live demonstrations of faculty working with people with PD • Use handout to document treatment of volunteers |
| | 2:40 pm | Group Discussion and Breakout Session Debrief live demonstrations In breakout groups, use clinical decision making skills in groups |
| | 3:45 pm | Break |
| | 4:00 pm | Group Practicum Level 2 Action Sequences Intro to Level 2 Basic 4 Flow Mobility: Overground, Vertical and Multidirectional |
| | 5:35 pm | Group Practicum: Functionality Flows |
| | 6:00 pm | End of Day 1 |



PWR!Moves® Therapist Certification Virtual Workshop Agenda: Day 2

| My Time | AZ Time | Topic |
|---------|----------|---|
| | 8:00 am | Share your PWR! Pearls from Day 1 |
| | 8:15 am | Applying Learning Essentials to PWR!Moves—Exercise4BrainChange |
| | 9:15 am | Group Practicum: Review PWR!Moves Level 1 & Level 2 • Flows and Boosts • Advanced Positions |
| | 10:00 am | Group Practicum & Faculty Demonstrations: Level 3 Functional Mobility |
| | 10:45 am | Break |
| | 11:00 am | Group Practicum: Mobility Progressions Overground Mobility/Functional Agility |
| | 11:25 am | Group Practicum: Video Case Studies Apply Retrain Functional Mobility (RFM) Model Assignment #1: Advanced PD Assignment #2: Early PD |
| | 12:30 pm | Long Break |
| | 1:30 pm | Discussion on Dosage. Assessments and Plans of Care |
| | 2:45 pm | Learning Essentials: Emotional Engagement |
| | 3:00 pm | 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 |



Course Description

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 (not necessarily the intensity) 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 (PWP) 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.

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 progressions across disease severity. Finally, the curriculum is evidenced-informed and designed to be updated when new research becomes available.

To guide physical therapists into how to retrain and sustain 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 and sustain functional mobility framework, therapists will learn to skillfully apply evidencedinformed learning techniques to exploit goal-directed and habitual pathways to increase success in real-life functional mobility conditions.

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



Methods of Instruction

- Lectures with integrated polls and response to chat.
- Interactive practicums with faculty whole group instruction to practice the PWR!Moves
 fundamentals that includes 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



Course Objectives and Goals

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. 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.
- 10. Effectively apply Exercise for Brain Change techniques to achieve optimal motor/cognitive challenge for your clients with Parkinson disease.
- 11. Develop treatment plans which integrate PWR!Moves[®] and progressive aerobic training tailored to individuals with PD with different disease severities.
- 12. 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, MS, PhD

Dr. Becky Farley is a physical therapist, neuroscientist, Parkinson exercise specialist, as well as the 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, with an emphasis on 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, MPT Board Certified Neurologic Clinical Specialist

Shelley Hockensmith is a physical therapist with nearly 20 years of experience in outpatient neurological rehab settings. She graduated from the University of Evansville with her MPT in 2003 and in 2008 became a Board Certified Neurologic Clinical Specialist re-certifying in 2018. She has experience in private practice as well as 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 also was fortunate to work in a specialized vestibular and

balance disorder clinic as both clinician and coordinator with a team of audiologists and physical therapists. 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.



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.





Melanie Lomaglio, PT, DPT, MSc Board Certified Neurologic Clinical Specialist

Dr. Melanie Lomaglio brings 25 years of experience to her patients at The Parkinson's Health Center at STARS Rehab. She graduated from McGill University in 1997 with a Bachelor of Science in Physical Therapy, the University of British Columbia in 2005 with a Master of Science in Neurological Rehab, and completed her Doctor of Physical Therapy degree from the University of St. Augustine in 2017. In 2009 her and her husband founded STARS Rehab in St. Augustine, Florida, in 2019 Melanie founded The Parkinson's Health Center focused on

specialized rehabilitation, and in 2022 she founded the non-profit ReBloom Center to improve the lives of people with Parkinson's disease through group exercise. In 2010, Melanie became a Board Certified Neurologic Clinical Specialist (re-certified in 2019). Dr. Lomaglio also has 12 years of teaching experience as an Assistant Professor within the neurologic curriculum of an entry-level doctoral of Physical Therapy program, she participates in research, and has published and presented her work on an international level. Her professional mission is to improve the quality of life of people living with Parkinson's Disease through movement, community and empowerment. Melanie is a 2020, 2021and 2022Parkinson's Foundation Community Grant winner and in addition to providing individual rehab and group wellness, she facilitates the St. Augustine Parkinson's support group.



Anna McIntyre, DPT

Anna McIntyre graduated from George Mason University in 2011 with a Bachelors degree in Exercise Science and earned her Doctor of Physical Therapy degree from Marymount University in 2016. She works at STARS Rehab in the Parkinsons Health Center, exclusively treating people who have Parkinson's Disease as well as atypical parkinsons such as Progressive Supranuclear Palsy, Multiple System Atrophy, and Lewy Body Dementia. She also provides in-person and online PWR! Moves classes through the Park Avenue Project Grant for all ability levels for people with Parkinson's and is a Rock Steady Boxing affiliate and coach. Anna is extremely passionate about patient care and rebuilding her patient's lives through movement, community, and empowerment.



George P Hebbler, PT, DPT

George "Paul" Hebbler graduated from Louisiana State University in 2009 with a Bachelors of Science in Psychology then went on to attend and graduate from The University of St Augustine for Health Sciences with his Doctor of Physical Therapy degree in 2013. He has experience in both outpatient and short term rehabilitation settings and since 2019, has worked at STARS Rehab in St Augustine, FL where he provides outpatient physical therapy for patients with both orthopedic and neurologic diagnoses with focus on Parkinson's Disease. He coaches non-contact boxing at a Rock Steady Boxing Affiliate, teaches adaptive group yoga and PWR!Moves exercise classes online and in-person, and volunteers in a

community support group for people with Parkinson's Disease and Parkinsonisms. Paul is passionate about patient care and using exercise and community development to help his patients to live fulfilling and empowered lives.

Foundational References



- 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 Parkinsons disease. *Parkinsonism & Related Disorders*. 2016;24:56-62. doi:10.1016/j.parkreldis.2016.01.015
- 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
- Farley BG, Fox CM, Ramig LO, Mcfarland DH. Intensive Amplitude-specific Therapeutic Approaches for Parkinsons Disease. *Topics in Geriatric Rehabilitation*. 2008;24(2):99-114. doi:10.1097/01.tgr.0000318898.87690.0d
- 5. 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
- 6. 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
- 7. Hirsch MA, Farley BG. Exercise and neuroplasticity in persons living with Parkinson's disease. *Eur J Phys Rehabil Med*. 2009;45(2):215-229.
- 8. Marinelli L, Quartarone A, Hallett M, Frazzitta G, Ghilardi MF. The many facets of motor learning and their relevance for Parkinsons disease. *Clinical Neurophysiology*. 2017;128(7):1127-1141. doi:10.1016/j.clinph.2017.03.042
- 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
- 10. Nonnekes J, Nieuwboer A. Towards Personalized Rehabilitation for Gait Impairments in Parkinson's Disease. *Journal of Parkinsons Disease*. 2018;8(s1). doi:10.3233/jpd-181464
- 11. Sacheli MA, Murray DK, Vafai N, et al. Habitual exercisers versus sedentary subjects with Parkinsons Disease: Multimodal PET and fMRI study. *Movement Disorders*. 2018;33(12):1945-1950. doi:10.1002/mds.27498
- 12. 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
- 13. Schenkman M, Moore CG, Kohrt WM, et al. Effect of High-Intensity Treadmill Exercise on Motor Symptoms in Patients With De Novo Parkinson Disease. *JAMA Neurol*. 2017;80045. doi:10.1001/jamaneurol.2017.3517
- 14. 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