Translating Research into Exercise4BrainChange® Approaches for individuals with Parkinson disease.
Real World Rehabilitation and Community Implications

Target Audience Required for Certification
Physical/Occupational Therapists, Physical/Occupational Therapist Assistants
(Limited spots available for students enrolled in a Master or Doctoral Program)

Approved for 14 contact hours/1.4 CEU’s:
- Arizona Physical Therapy Association (16-0707)
- Arkansas State Board of Physical Therapy
- California Physical Therapy Association (CPTA #16-299)
- Florida Physical Therapy Association (26-459054)
- Kansas Physical Therapy Association
- Kentucky Physical Therapy Association (PENDING)
- Maryland Board of Physical Therapy Examiners
- American Physical Therapy Association of Massachusetts (MA-15-11-4)
- Minnesota Board of Physical Therapy (#6045)
- Montana Chapter of the American Physical Therapy Association
- New Jersey Board of Physical Therapy (2016-066)
- Ohio Physical Therapy Association (17S6030)
- Ohio Occupational Therapy Association (160113)
- Oklahoma State Board of Physical Therapy (PENDING)
- South Carolina Physical Therapy Association (03-16-17-01)
- Texas Physical Therapy Association (62192TX)
- Virginia Physical Therapy Association (P1718)
- Virginia Occupational Therapy Association (01-2017-01)
- Wisconsin Physical Therapy Association (WPTA # 16496)

Approved for 15 contact hours/1.5 CEU’s:
- Pennsylvania State Board of Physical Therapy (#PTCE007954)

Registration Fees
$550 per person
$300 Graduate Student Fee (CANNOT be combined with any group discounts)
Group Discounts: $500 per person for 2-4; $475 per person for 5+ (students cannot be part of group discounts)
$50 Late Fee (if registering after registration deadline – check availability)

Implementing Exercise4BrainChange® NOW
Join the PARKINSON EXERCISE REVOLUTION! Give People PWR over their Parkinson disease!

For more information call Vanessa at 520-591-5346, or to register, visit www.pwr4life.org
Upcoming Workshops:

Aug. 5-6, 2017  HealthSouth Rehab Hospital of Plano, 2800 W. 15th St. Plano, TX 75075
Aug. 12-13, 2017  HealthSouth Rehab Hospital of Western MA, 222 State Street, Ludlow, MA 01056
Sep. 30-Oct. 1, 2017  HealthSouth AnMed Rehab Hospital, 1 Springback Way, Anderson, SC 29621
Nov. 11-12, 2017  HealthSouth, 1504 SW 8th Ave., Topeka, KS 66606

Registration Information:

For General Registration:
Please go to http://www.pwr4life.org/pwr-workshops/ and select the workshop you would like to register for. Fill out registration form and payment information. You will then be emailed a confirmation of registration as well as workshop pre-readings.

For Group Registration:
Please have one person go to http://www.pwr4life.org/pwr-workshops/ and select the workshop you would like to register for, under group registration information fill out a 'Group/Organization Name' everyone else in the group will receive an email with this same name. This is needed for anyone in the group to use and get the discount. Everyone must still register and pay individually.

CANCELLATION POLICY

IF PARTICIPANT CANCELS;
With written or phone notification of cancellation, tuition will be refunded minus the following cancellation fees:
4 weeks prior to workshop date: $75.00
2 weeks prior to workshop date: $150.00
Less than 2 weeks of workshop date: $300.00

IF PARKINSON WELLNESS RECOVERY CANCELS;
Full tuition will be refunded. PWR! is not responsible for the refund of travel or hotel expenses under any circumstances.

For questions contact Vanessa at 520-591-5346
or email vanessa@pwr4life.org
PWR! Therapist Course Description:

Recent advances in basic and clinical science research suggest exercise and learning approaches may protect, repair, and optimize function in persons with Parkinson disease (PD). To be effective, proactive rehabilitation paradigms are needed that deliver ongoing programming for life, starting at diagnosis, and that are guided by the essential principles of learning and neuroplasticity. Participants will be introduced to a comprehensive research-based framework called Exercise4BrainChange® to guide clinicians in HOW to implement essential principles of learning and neuroplasticity identified in the literature to real world practice NOW. For each construct, techniques will be described that advocate forced use, progressive difficulty, reinforcement, active engagement, empowerment, attention to action, sensory awareness training, and neural readiness (aerobic conditioning/mental imagery). Each of these constructs is founded upon research in the fields of exercise science, motor control, and motor learning. This framework will be integrated with an understanding of the pathophysiology of Parkinson’s disease for greater specificity of training.

PWR!Moves® are building blocks for everyday movement and involve the performance of whole body large amplitude “big” movements in multiple postures (prone/supine/all 4’s/sitting/standing). The Basic 4 PWR!Moves® (UP/ROCK/TWIST/STEP) are taught as essential FUNctional exercises to target the primary symptoms of PD (bradykinesia/rigidity/incoordination). They provide the repetition and specificity of training for people with PD and can be scaled up/down across disease severity, integrated into function/ADL/lifestyle, implemented across disciplines (OT/PT/SPL) and settings (therapy/community), and reinforced in other research exercise programming (treadmill, cycling, pole walking, yoga, boxing, dance, Tai Chi). Exercise4BrainChange® framework applied to PWR!Moves® allows for a comprehensive PD-specific approach that can target the multiple motor/sensory/cognitive/emotional symptoms of PD.

Participants will have the opportunity to practice PWR!Moves® incorporating E4BC® techniques while getting feedback from PWR! Faculty. They will also watch live demos of PWR!Moves® progressions and treatment with volunteers with PD working with PWR! Faculty. Video cases and an interactive format will be used to discuss treatment plan essentials, to introduce specific exercises and various progressions, and to illustrate the real world implementation of this framework across disease severity. Participants will be able to develop comprehensive neuroplasticity-principled PD-specific treatment plans that take into account other evidence-based approaches, disease severity, symptoms, co-morbidities, preferred forms of exercise and activity, capacity for learning, and age.

The clinical translation of neuroplasticity-principled approaches for people with PD is dependent upon overcoming many challenges. Environments for learning are needed that embrace an atmosphere of empowerment, motivation, social enrichment, and FUNction! Regional networks of PWR! exercise experts are needed to advocate for early assessment and intervention, ongoing exercise, enrichment, and coordination with existing community fitness resources and local Parkinson foundations. We will describe how a Model Community NeuroFitness Center for people with Parkinson disease may offer a potential solution through partnerships with healthcare systems, Parkinson Foundations and through the training of local networks of PWR! PD exercise experts.
Objectives/Goals:

1. Discuss recent advances in Parkinson disease etiology, pathophysiology, and diagnostic criteria.

2. Recognize motor and non-motor symptoms and how the interfere with function and present barriers to participation.

3. Summarize recent advances in basic and clinical neuroscience that have brought exercise (aerobics and skill acquisition) to the forefront in PD as it relates to optimal brain function and skill acquisition.

4. Explain the significance of targeting the training of amplitude into function (PWR!Moves®) as the foundation for a comprehensive PD-specific program.

5. Perform the Basic 4 | PWR!Moves® in 5 positions: floor prone/supine, all4’s, sitting, standing and explain how they target foundational skills that become impaired in people with PD and how that interferes with function.

6. Vary the goal of how the Basic 4 | PWR!Moves® are instructed and explain how that may differentially target multiple symptoms of PD (rigidity, bradykinesia, incoordination, automaticity).

7. Describe how working on each of the Basic 4 | PWR!Moves® provides a PD-specific approach to targeting general fitness problems related to flexibility, strength, coordination, balance, and posture.

8. Demonstrate how PWR!Boosts can be a stand-alone program or integrated into PWR!Moves® exercises and discuss why they are important for PWP.

9. Demonstrate effective use of modeling, mental imagery, attentional focus, external cues, instruction, reward-based and task-specific feedback to achieve optimal engagement for optimal performance and learning.

10. Explain the significance of implementing PWR!Moves® as a foundation for PD-specific exercise across settings (therapy/community) that can be a stand-alone program, or integrated into task-specific training or other research-based community exercise programming (treadmill, cycling, pole walking, yoga, boxing, dance, Tai Chi).

11. Develop a comprehensive treatment plan for individuals with different disease severity using video case studies that is consistent with PWR!LIFE essentials and the European Guidelines.

12. Implement PWR!Moves® exercise progressions using video cases to illustrate real world implementation of Exercises4BrainChange® framework across disease severity.

13. Discuss the unmet needs in PD rehabilitation and possible solutions to their resolution through novel paradigms and community partnerships.
# PWR! Therapist Workshop

Translating Research into Exercise4BrainChange™ Approaches for Individuals with Parkinson Disease: Real World Rehabilitation and Community Implications

## PWR! THERAPIST WORKSHOP SCHEDULE - DAY 1

<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
</tr>
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<tbody>
<tr>
<td>7:30 am</td>
<td>Registration</td>
</tr>
<tr>
<td>8:00 am</td>
<td>Rationale for PWR!4LIFE Exercise4BrainChange® Model</td>
</tr>
<tr>
<td></td>
<td>• What you do? How you Practice.</td>
</tr>
<tr>
<td>9:30</td>
<td>Overview of Parkinson disease (PD)</td>
</tr>
<tr>
<td>10:45</td>
<td>BREAK</td>
</tr>
<tr>
<td>11:00</td>
<td>Basic 4</td>
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<tr>
<td>11:30</td>
<td>Basic 4</td>
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<tr>
<td></td>
<td>• Basic 4</td>
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<tr>
<td></td>
<td>• Boosts integrated/alone</td>
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<tr>
<td>12:30 pm</td>
<td>LUNCH (on your own)</td>
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<tr>
<td>1:30</td>
<td>Basic 4</td>
</tr>
<tr>
<td></td>
<td>• prepare/activate/flow/boosts</td>
</tr>
<tr>
<td>2:30</td>
<td>Basic 4</td>
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<tr>
<td></td>
<td>• Basic 4</td>
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<tr>
<td></td>
<td>• Prepare/Activate/FLOW/Boosts/Adaptations</td>
</tr>
<tr>
<td>3:30</td>
<td>BREAK</td>
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<tr>
<td>3:45</td>
<td>Basic 4</td>
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<tr>
<td></td>
<td>• PWR! Walking - Evolution Flows - Variations</td>
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<td></td>
<td>• Simple equipment to enhance quality of movement/success</td>
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<tr>
<td>4:30</td>
<td>Basic 4</td>
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<tr>
<td></td>
<td>• Task-Specific/Functional application demo</td>
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<tr>
<td></td>
<td>• Integrate PWR!Moves into an assigned Task-specific/Functional Activity</td>
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<tr>
<td>5:00</td>
<td>Basic 4</td>
</tr>
<tr>
<td></td>
<td>• Task-specific applications/Discussions</td>
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<tr>
<td>6:00 pm</td>
<td>End of Day 1</td>
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</tbody>
</table>

## PWR! THERAPIST WORKSHOP SCHEDULE - DAY 2

<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
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</thead>
<tbody>
<tr>
<td>8:00 am</td>
<td>Evidence for Learning in PD? How to optimize learning in PD?</td>
</tr>
<tr>
<td>9:30</td>
<td>BREAK</td>
</tr>
<tr>
<td>9:45 am</td>
<td>Demo for PWP –Personalized PWR! E4BC Program</td>
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<tr>
<td></td>
<td>• Exercise/Task-specific/Functional PWR!Moves Progressions</td>
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<tr>
<td></td>
<td>• Equipment and E4BC Principles to enhance learning</td>
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<tr>
<td>11:15</td>
<td>Basic 4</td>
</tr>
<tr>
<td>11:45</td>
<td>LUNCH (on your own)</td>
</tr>
<tr>
<td>12:30 pm</td>
<td>PWR! E4BC Program Discussion</td>
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<tr>
<td></td>
<td>• Sample video cases/HEP plans/assessment</td>
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<tr>
<td>1:30</td>
<td>CONT. Evidence for Learning in PD? How to optimize learning in PD?</td>
</tr>
<tr>
<td>2:00</td>
<td>Implications for our healthcare delivery paradigm</td>
</tr>
<tr>
<td>3:15 pm</td>
<td>End of Day 2 – THE END!</td>
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<tr>
<td></td>
<td>Course Feedback Forms/Certificates of completion and Database forms</td>
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</tbody>
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Faculty:
Becky G. Farley, PhD, MS, PT

Dr. Farley 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 has over 30 years of experience in neurological rehabilitation, and is currently the CEO/Founder of the nonprofit Parkinson Wellness Recovery | PWR, and a Physiology Associate at the University of Arizona. During her post-doc, Dr. Farley studied bradykinesia, developed the LSVT® BIG exercise program, and completed an NIH funded randomized clinical trial documenting its’ short-term efficacy (3-months).

Dr. Farley is now training clinicians and fitness professionals to be PD-exercise experts to ensure the foundations of large amplitude FUNCTIONal training and other essential research-components are implemented into a comprehensive PD-specific exercise and integrated throughout the Parkinson’s community. She is advocating that local PD-exercise experts join forces to allow people with PD to have access to comprehensive neuroplasticity-principled exercise programming for life, beginning at diagnosis. This is the type of paradigm shift that is necessary to truly slow disease progression. On February 2012, the doors to the first PWR Gym®, a Model Community Neuro Fitness Center for people with Parkinson disease, were opened in Tucson, AZ to truly implement Exercise AS Medicine.

Jennifer Bazan-Wigle, PT/DPT

Dr. Jennifer Bazan-Wigle began her first career with a Bachelor’s of Science in Education from Northern Arizona University teaching science for the Department of Defense Schools in the Netherlands, South Korea, Japan, and Germany and for the Miami-Dade School District in Miami, FL. In 2010, Jennifer graduated with a Doctor of Physical Therapy from Nova Southeastern University in Ft. Lauderdale, FL. Her primary area of physical therapy practice has focused on neurological rehabilitation. She is currently the Lead PWR Gym Physical Therapist and participates in research, community presentations and continuing education courses as part of the PWR Faculty.

Claire McLean, DPT, NCS

Dr. Claire McLean is a Board Certified Neurologic Clinical Specialist. She graduated with a doctorate in physical therapy from the University of Southern California and has specialty training through the University of Southern California/Rancho Los Amigos Neurologic Physical Therapy Residency program. At Hoag Hospital, an NPF Care Center, Dr. McLean works in the outpatient rehabilitation clinic primarily with clients with neurologic dysfunction with an emphasis on Parkinson’s disease and other movement disorders. She is on an interdisciplinary assessment and intervention team for patients prior to, and after receiving DBS surgery. Dr. McLean also coordinates and instructs multiple community exercise classes for individuals with PD following physical therapy.

Dr. McLean also is an Adjunct Faculty member instructing in USC’s entry-level doctorate program. She has instructed in continuing education courses on the topics of self-efficacy and executive function training for patients with neurologic dysfunction as well as for the LSVT® BIG program. Dr. McLean has research experience working as an intervention therapist on the LEAPS (Locomotor Experience Applied Post-Stroke) trial, and on multiple studies investigating the effect of exercise in people with Parkinson disease. She was the primary blinded evaluator for the California sites of the ICARE (Interdisciplinary Comprehensive Arm Rehabilitation Evaluation) trial.
References: