

Competency Framework for Exercise Professionals

These expectations collectively outline how exercise professionals design and deliver exercise leadership to people with Parkinson's.

These expectations are divided into five domains intended to aid interpretation. Each describes important components that, in combination with their existing expertise, help exercise professionals achieve competence when working with people with Parkinson's.

Parkinson's Disease: Foundational Information on the Diagnosis, Treatment, and the Role of Exercise

- 1. Apply their basic understanding of Parkinson's to discuss the range of symptoms and treatments with a person with Parkinson's and their care partners.
- 2. Understand the impact of a Parkinson's diagnosis and treatment on quality of life, and the potential for exercise to enhance a range of health and quality of life outcomes for people with Parkinson's.
- 3. Awareness of basic effects and complications of common treatments used for Parkinson's and co-morbid conditions that impact a person with Parkinson's disease such as their physiological response to, or ability to participate in exercise.
- 4. Understand how Parkinson's disease, as well as other co-morbidities, can increase an individual's risk of injury and other complications from exercise.

Screening for People with Parkinson's Disease to Participate in Exercise

- 1. Select health-risk screening and physical assessments as appropriate for the exercise plan.
- 2. Evaluate the screening results to determine if a person with Parkinson's is presumed reasonably safe to participate in the exercise program prior to conducting any physical assessments (relevant to the program).
- 3. Identify and/or create appropriate exercise options/plans for people with Parkinson's considering their abilities (e.g., motor, non-motor), safety and health risks, practical feasibility (e.g., location, economics, stage of the disease), and personal goals.

3 Group/Individual Exercise Design for People with Parkinson's Disease

- 1. Design exercise plans by:
 - a. selecting and ordering exercises with disease-specific considerations (e.g., extended warm-up, range of motion, attention to heart rate, recovery time).
 - b. incorporating the domains of fitness in accordance with the Parkinson's Exercise Guidelines.
 - c. considering other Parkinson's-related factors (e.g., cognitive/emotional, functional skills, ADLs) and challenges (e.g., stooped posture, balance/weight-shifting, axial rotation, transitions/multi-directional stepping, gait, rigidity, non-motor symptoms).

- 2. Select appropriate equipment based on the exercise plan and implement safety protocols as needed given Parkinson's-specific safety risks.
- 3. Understand how to modify class design considering instructor/exercise client ratios and accommodations for disease progression (e.g., participation of care partners) including the accommodation of several ability levels within the same class.
- 4. Respond to medical and safety incidents occurring during class, including distinguishing between emergency and non-emergency situations.

4 Exercise Leadership for People with Parkinson's Disease: Human Behavior and Counseling

- 1. Demonstrate exercise activities for people with Parkinson's including teaching, cueing and modeling exercises, modifying exercises through progressions and regressions while monitoring and adjusting for potential safety risks.
- 2. Adapt exercise instruction as necessary for individual or class sessions (e.g., speak louder, demonstrate several modifications of the same exercise, use expanded cueing and modeling techniques).
- 3. Identify teachable moments for people with Parkinson's and take that opportunity to provide appropriate information and education.
- 4. Apply strategies that promote behavior change (e.g., goal setting, motivation, sense of membership, sense of community, social support) to facilitate engagement and program adherence.
- 5. Recognize when changes in the health status (motor or non-motor symptoms, injuries, surgeries) of a person with Parkinson's warrant a referral to another member of the interprofessional care team or to a more appropriate exercise or movement option.
- 6. Mitigate legal risk and apply their understanding of responsibilities as an exercise professional (e.g., liability insurance, waivers, staying within scope of practice, incident reporting, when medical clearance is required or needs to be revisited).

5 Interprofessional Communication and Program Development

- 1. Understand how to build and maintain an interprofessional care network of individuals who work with people with Parkinson's and understand the scope of practice of each type of professional.
- 2. Encourage people with Parkinson's to visit their physical therapist on a regular basis for initial and re-evaluation.
- 3. Encourage people with Parkinson's to seek appropriate care from physicians and other members of the interprofessional care team as appropriate given their Parkinson's-specific motor and non-motor symptoms, and general health concerns.
- 4. Understand how to incorporate care partners and other assistants into the exercise plan to increase success and safety.

These competencies have been released as a pre-print and are currently undergoing scientific peer review. Updates will be posted as the competencies and supporting manuscript are refined for publication.

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