Background

- Exercise is an important component in the treatment of Parkinson’s disease (PD).
- It can be difficult for people with PD (PwP) to find an appropriate exercise class given the variety of classes available.
- Safety and efficacy of the class depend on the instructor's skill in working with PwP.
- There is no quality assurance for exercise professionals to ensure they are teaching effective programs for PwP.

Completed and Ongoing Methodology

- On March 5-6th, the Parkinson’s Foundation convened thought leaders in exercise for PwP (Fig 1). These experts discussed:
  1. Recommended exercise guidelines
  2. Models of education for exercise professionals
  3. Delivery models that integrate community exercise with traditional interprofessional care

- Post convening, a Leadership Committee (LC) was formed including key stakeholders from the PD exercise, physical therapy, and exercise communities. The LC is engaging a psychometrician methodological consultant to assist with development.

- Developing the exercise competencies include gathering data from surveys, focus groups and a job task analysis.

- The convening should be completed in late 2021 (Fig 2.).

Purpose

Seven Key Take-aways from the Exercise Convening

1. PwP should find ways to exercise regularly, targeting aerobic fitness, strengthening, flexibility, as well as balance, agility and dual tasking.

2. Skilled and knowledgeable exercise professionals provide personal training and/or group exercise instruction for PwP, along with social support and motivation. They have a wide range of backgrounds, from high school diplomas to doctorate degrees.

3. Exercise professionals may have more contact with PwP than the traditional interprofessional healthcare team, providing great opportunity for positive impact on quality of life.

4. Competencies for exercise professionals should be established based on the knowledge, skills and abilities considered to be essential entry-level performance. Knowledge includes exercise guidelines (See Table) developed through rigorous research review on the frequency, intensity, time, type, volume and progression of exercise.

5. Stakeholders should develop common language regarding guidelines and competencies to reduce variability in the delivery of exercise.

6. Establishing exercise competencies will provide PwP peace of mind knowing their exercise instructor understands the needs of PwP.

7. PwP participate in exercise through research grants, community grants, non-profit organizations and/or paid programs. Evidence-based guidelines and competencies may aid in opportunities for insurance reimbursement for exercise classes or PwP.

Recommended Exercise Guidelines

<table>
<thead>
<tr>
<th>F.I.T.T.</th>
<th>V.P.</th>
<th>Key Findings</th>
<th>Flexibility</th>
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<tbody>
<tr>
<td>Frequency</td>
<td>Intensity &amp; Volume</td>
<td>Time &amp; Type</td>
<td>Flexibility</td>
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<tr>
<td>2-3 days/week</td>
<td>Moderate intensity: 40-80% HRR (or VO2), RPE of 13-15</td>
<td>2-3 days/week focused workout, with daily integration as possible.</td>
<td>Full extension, flexion, or rotation to the point of slight discomfort. Progress as patient can tolerate.</td>
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<tr>
<td>2-3 days/week</td>
<td>High intensity: 80-90% HRR, RPE of 16-18</td>
<td>30-60 minutes per workout. Build to 2-3 hours/week.</td>
<td>All major muscle groups first thing in the morning, before bed, or after exercise. Dynamic stretching prior to intense aerobic and strengthening exercise. Include diaphragmatic breathing and meditation.</td>
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<td>1-2 sets of 8-10 repetitions</td>
<td>Major muscle groups of the upper and lower body using weight machines, resistance bands, or body weight. Focus on core to build stability and core strength.</td>
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<td>4-6 hours/day</td>
<td>Multidirectional stepping, weight shifting, reaching, large amplitude movements, functional agility (e.g. stepping over obstacle, backwards, for floor, sit-to-stand)</td>
<td>All major muscle groups first thing in the morning, before bed, or after exercise. Dynamic stretching prior to intense aerobic and strengthening exercise. Include diaphragmatic breathing and meditation.</td>
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