Influences of Balance Confidence, Fear of Falling, and Fall History on Physical Activity Levels in Community-Dwelling Older Adults

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Introduction

- Up to 35% of adults over age 65 report engaging in no physical activity beyond work
- Few studies have examined the relationship between balance confidence, fear of falling, history of falls, and physical activity levels
- **Purpose**: To determine the relationships between scores of physical activity levels and balance confidence, fear of falling, and fall history in community-dwelling older adults

Methods

- Participants initially completed the Activities-specific Balance Confidence Scale (ABC), Fear of Falling Avoidance Behaviors Questionnaire (FFABQ), Physical Activity Scale for the Elderly (PASE), and a self-reported fall history
- Participants completed a PASE monthly for 3 months
- Pearson correlation coefficients (r) were calculated between the ABC and FFABQ scores and the initial (PASEι) and 3-month mean (PASE3) PASE scores
- Independent t-tests and Mann-Whitney U tests were used to compare PASE scores between fallers and non-fallers

Results

**Table 1: Participant Characteristics at Baseline (Mean ± SD)**

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Non-Fallers (n=55)</th>
<th>Fallers (n=33)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (y)</td>
<td>76 ± 7.28</td>
<td>76 ± 6.02</td>
</tr>
<tr>
<td>Falls in the past 12 months</td>
<td>0</td>
<td>2.64 ± 3.01</td>
</tr>
<tr>
<td>Use of Single Point Cane (n, %)</td>
<td>4, 4.5%</td>
<td>5, 5.7%</td>
</tr>
<tr>
<td>ABC Score (%)</td>
<td>87.51 ± 13.32</td>
<td>86.01 ± 14.06</td>
</tr>
<tr>
<td>FFABQ Score</td>
<td>5.44 ± 6.69</td>
<td>9.91 ± 12.73</td>
</tr>
</tbody>
</table>

**Table 2: Correlations Between PASE Scores and Patient-Reported Outcome Measures (r)**

<table>
<thead>
<tr>
<th></th>
<th>ABC</th>
<th>FFABQ</th>
<th>Fall Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>PASEι</td>
<td>0.398a</td>
<td>-0.362p</td>
<td>-0.148</td>
</tr>
<tr>
<td>PASE3</td>
<td>0.384a</td>
<td>-0.349p</td>
<td>-0.202</td>
</tr>
</tbody>
</table>

Key: *p<0.001, **p<0.01

Discussion

- Increased balance confidence and reduced fear of falling were moderately correlated with higher physical activity levels
- Limitations include a small sample size, which targeted participants in a small geographical area, and a short follow-up

Clinical Relevance

- Influences on physical activity levels are multifactorial
- Administering the ABC and/or FFABQ to older adults can better inform plans of care when prescribing physical activity
- Clinicians should consider interventions to increase balance confidence and decrease fear of falling when encouraging older adults participate in physical activity

References