

## Activities Most Avoided Because of Fear of Falling Avoidance Behavior in People With Parkinson's Disease

John V. Rider, PhD, OTR/L, CEAS<sup>1</sup>, Jason K. Longhurst, PT, DPT<sup>2</sup>, James W. Navalta, PhD<sup>3</sup>, Daniel L. Young, PT, DPT<sup>3</sup>, Merrill R. Landers, PT, DPT<sup>3</sup>

<sup>1</sup>Touro University Nevada, Henderson, Nevada, United States; <sup>2</sup>Saint Louis University, St. Louis, Missouri, United States; <sup>3</sup>University of Nevada, Las Vegas, Las Vegas, Nevada, United States

DOI: 10.5014/ajot.2022.76S1-PO2

Date presented: March 31, 2022

Primary Author and Speaker: John V. Rider, johnny.rider@gmail.com

**PURPOSE:** To determine what activities are most avoided due to fear of falling avoidance behavior (FFAB), if any demographic factors are associated with FFAB, and if avoidance behavior influences fall risk among individuals with Parkinson's disease (PD). FFAB has been shown to lead to negative downstream consequences of physical and psychological decline. Identifying the most commonly avoided activities and associated factors may play a key role in designing interventions to mitigate maladaptive FFAB and prevent further functional decline.

**DESIGN:** A cross-sectional analysis of 174 individuals with PD. FFAB was measured with the Modified Fear of Falling Avoidance Behavior Questionnaire (mFFABQ).

**METHOD:** Participants with a clinical diagnosis of PD were recruited as a sample of convenience from the Cleveland Clinic Lou Ruvo Center for Brain Health in Las Vegas, NV. Participants were excluded if they could not read or speak English, had a significant cognitive impairment (<18 on the Montreal Cognitive Assessment), or had any non-PD-related comorbidities that significantly impaired balance. Participants completed the mFFABQ (a 14-item scale measuring avoidance behavior due to fear of falling). FFAB is a separate construct from falls efficacy or balance confidence, allowing for an analysis of the extent to which fear of falling has direct implications on activity restriction. Descriptive statistics were used to examine the most avoided activities, statistical analyses were used to examine the relationship of FFAB with demographic variables (age, gender, disease severity, and fall history), and logistic regression was used to determine the relationship between avoided activities and falls.

**RESULTS:** The most frequently avoided activities were Walking in dimly lit, unfamiliar places, Walking on different surfaces, Lifting and carrying objects, Walking in crowded places, and Recreational and leisure activities. There were no significant relationships between total mFFABQ scores and age, gender, or disease severity. Fallers in the past month or past year had higher FFAB scores ( $p < .029$ ). Avoiding walking (aOR = 2.07), getting out of chairs (aOR = 1.96), and preparing meals (aOR = 2.12) were associated with increased odds of falling. Avoiding going up and downstairs (aOR = .58) and showering/bathing (aOR = .48) were associated with decreased odds of falling.

**CONCLUSION:** Individuals with PD avoid walking in compromised situations and engaging in recreational and leisure activities due to fear of falling. Knowledge of the most avoided activities can be used to improve group and standardized interventions targeting individuals with PD. Although fallers reported higher levels of FFAB compared to nonfallers, individuals without falls still reported FFAB, indicating that occupational therapists (OTs) should address FFAB in the early stages of PD and regardless of fall history. While FFAB for certain activities was associated with increased odds of falling, protective forms of FFAB (e.g., when physiological risk matches perceived risk) may be associated with decreased odds of falling. Further research is needed to understand why individuals with PD may avoid certain types of activities, if disparities exist between perceived and physiological fall risk, the role of maladaptive and adaptive FFAB in fall prevention, and interventions to mitigate maladaptive FFAB.

**IMPACT STATEMENT:** FFAB is common among individuals with PD and the avoidance of certain activities may influence fall risk. OTs should screen for FFAB in the early stages of PD and if a person reports avoiding activities due to FFAB, they should be assessed for safety within that activity to determine if the FFAB is protective (adaptive) or maladaptive.

### References

- Delbaere, K., Close, J., Brodaty, H., Sachdev, P., & Lord, S. (2010). Determinants of disparities between perceived and physiological risk of falling among elderly people: cohort study. *BMJ*, *341*(4), c4165. <https://doi.org/10.1136/bmj>
- Huang, Y., Canning, C., Song, J., Clemson, L., & Allen, N. (2021). How does perceived fall risk influence decisions about whether to undertake activities in people with Parkinson's disease and their care partners? A qualitative study. *Disability and Rehabilitation*, 1-9. <https://doi.org/10.1080/09638288.2021.1955983>
- Landers, M., Durand, C., Powell, D., Dibble, L., & Young, D. (2011). Development of a scale to assess avoidance behavior due to a fear of falling: the Fear of Falling Avoidance Behavior Questionnaire. *Physical Therapy*, *91*(8), 1253-1265. <https://doi.org/10.2522/ptj.20100304>
- Landers, M., Jacobson, K., Matsunami, N., McCarl, H., Regis, M., & Longhurst, J. (2021). A vicious cycle of fear of falling avoidance behavior in Parkinson's disease: A path analysis. *Clinical Parkinsonism & Related Disorders*, *4*, 100089. <https://doi.org/10.1016/j.prdoa.2021.100089>