

Fall 2021

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

Alison Yang SPT

Holly Roberts PT, PhD
University of Puget Sound

Follow this and additional works at: <https://soundideas.pugetsound.edu/ptsymposium>



Part of the [Physical Therapy Commons](#)

Recommended Citation

Yang, Alison SPT and Roberts, Holly PT, PhD, "Influences of Balance Confidence, Fear of Falling, and Fall History on Physical Activity Levels in Community-Dwelling Older Adults" (2021). *Physical Therapy Research Symposium*. 65.

<https://soundideas.pugetsound.edu/ptsymposium/65>

This Poster is brought to you for free and open access by the Physical Therapy, School of at Sound Ideas. It has been accepted for inclusion in Physical Therapy Research Symposium by an authorized administrator of Sound Ideas. For more information, please contact soundideas@pugetsound.edu.

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

Alison Yang, SPT and Holly Roberts, PT, PhD

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 (PASE_i) 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)

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

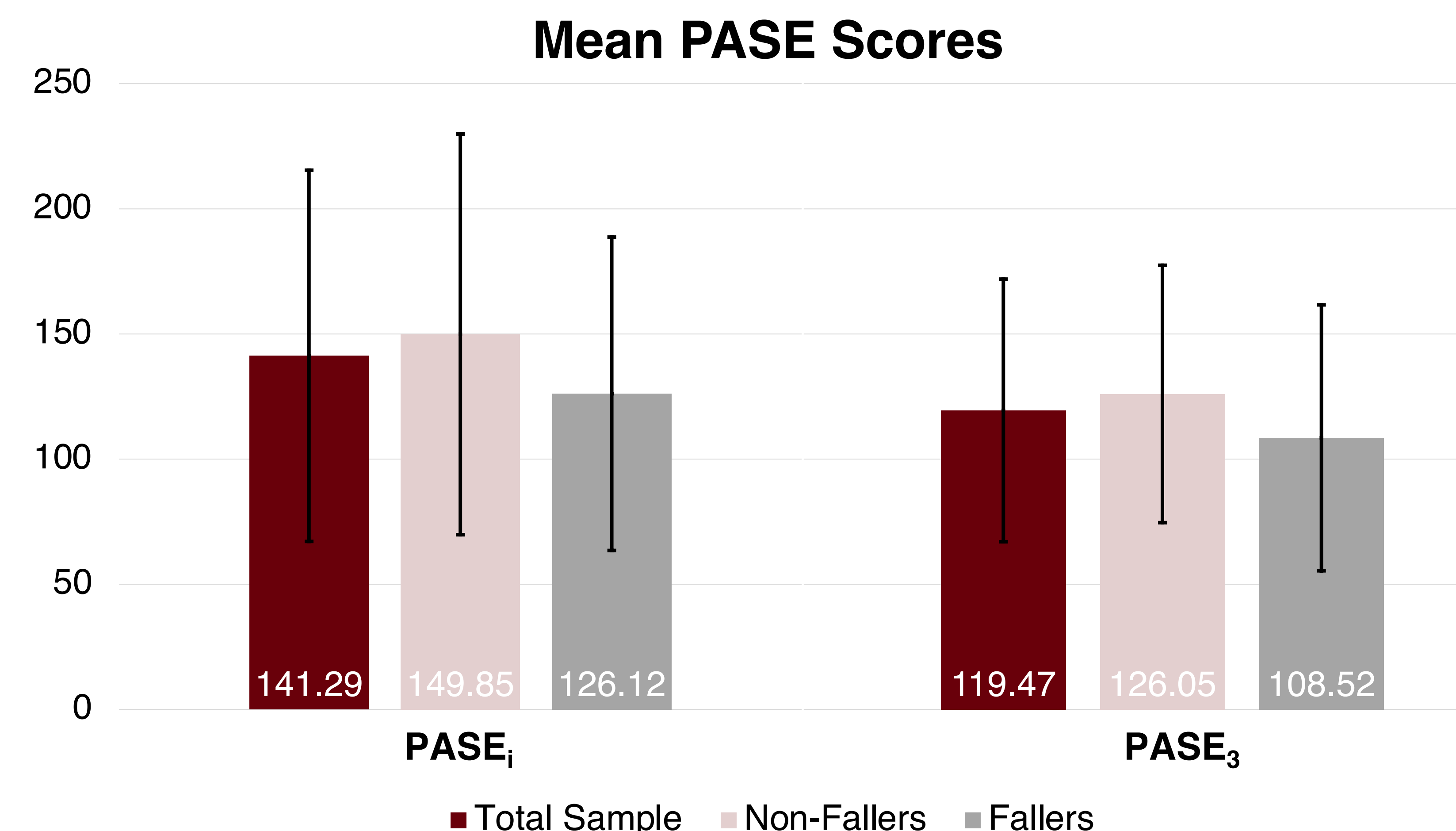


Table 2: Correlations Between PASE Scores and Patient-Reported Outcome Measures (r)

| | ABC | FFABQ | Fall Status |
|-------------------|--------------------|---------------------|-------------|
| PASE _i | 0.398 ^a | -0.362 ^b | -0.148 |
| PASE ₃ | 0.384 ^a | -0.349 ^b | -0.202 |

Key: ^ap<0.001, ^bp=0.001

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

1. Liu M, Hou T, Li Y, et al. Fear of falling is as important as multiple previous falls in terms of limiting daily activities: a longitudinal study. *BMC Geriatr.* 2021;21(1):350. doi:10.1186/s12877-021-02305-8
2. Watson KB. Physical Inactivity Among Adults Aged 50 Years and Older — United States, 2014. *MMWR Morb Mortal Wkly Rep.* 2016;65(36):954–958.
3. Lajoie Y, Gallagher SP. Predicting falls within the elderly community: comparison of postural sway, reaction time, the Berg balance scale and the Activities-specific Balance Confidence (ABC) scale for comparing fallers and non-fallers. *Archives of Gerontology and Geriatrics.* 2004;38(1):11-26.
4. Talley KMC, Wyman JF, Gross CR, Lindquist RA, Gaugler JE. Change in Balance Confidence and Its Associations With Increasing Disability in Older Community-Dwelling Women at Risk for Falling. *J Aging Health.* 2014;26(4):616-636.
5. Whipple MO, Hamel AV, Talley KMC. Fear of Falling Among Community-Dwelling Older Adults: A Scoping Review to Identify Effective Evidence-Based Interventions. *Geriatr Nurs N Y N.* 2018;39(2):170-177
6. Jefferis BJ, Iliffe S, Kendrick D, et al. How are falls and fear of falling associated with objectively measured physical activity in a cohort of community-dwelling older men? *BMC Geriatr.* 2014;14:114. doi:10.1186/1471-2318-14-114