

## Health Services & Systems Research Category

### Best Poster

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### Falls Efficacy, Postural Balance, and Risk for Falls in Older Adults with Falls-related Emergency Department Visits

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**Aims:** Falls are a common reason for older adults attending the emergency department (ED), and older adults with a falls-related ED visit have increased risk for subsequent falls, hospital readmission, functional decline, and mortality. Accordingly, identifying the risk factors for falls in this clinical population is crucial. Although the risk for falls in older adults has been associated with falls efficacy and postural balance, the available evidence is limited and mixed. We examined the interaction between falls efficacy and postural balance and its association with future falls. We also investigated the association between falls efficacy and gait limitations.

**Methodology:** In this prospective cohort study nested within a randomised controlled trial, falls efficacy, measured by the Modified Falls Efficacy Scale (MFES), and standing postural balance, measured using computerised posturography on a balance board, were obtained from 247 older adults with a falls-related ED visit. Six-month prospective fall rate and habitual gait speed at 6 months post-baseline assessment were also measured.

**Result:** In multivariable proportional odds analyses, adjusted for 6 potential confounders (age, sex, fall history, number of comorbidities, baseline Short Physical Performance Battery scores, and treatment group assignment), falls efficacy modified the association between postural balance and fall risk (interaction  $P=0.014$ ): increasing falls efficacy accentuated the increased fall risk related to poor postural balance. Low baseline falls efficacy was strongly predictive of worse gait speed (0.11m/s [0.06 to 0.16] slower gait speed per IQR decrease in MFES;  $P<0.001$ ).

**Conclusion:** Older adults with high falls efficacy but poor postural balance were at greater risk for falls than those with low falls efficacy; however, low falls efficacy was strongly predictive of future gait decline. These findings are important because managing the "over-confident" and "under-confident" older adults requires different strategies. Further research into these subgroups of older adults is warranted.