

Title: Risk factors associated with near-falls and falls in community-dwelling older adults: a preliminary report of a longitudinal cohort study

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Introduction: Falls are well known to be a common cause of different adverse events, such as hip fracture, long hospital stay, and early death, in older populations. Although the risk factors for falls in older adults have been widely investigated, only few studies evaluated the risk factors for a fall-related “precursor”, near-falls, and its relationship with falls in older adults.

Objectives: To investigate the factors associated with prospective near-falls and falls over 12 months in community-dwelling older adults.

Methods: Demographics, fear of falling, balance confidence, physical performance, cognitive function, and psychological conditions of participants were assessed at baseline. The participants' incidence of near-falls and falls were monitored and recorded over 12 months. Logistic regression was used to evaluate the association between the outcomes and near-falls and falls.

Results: 101 participants have finished the 12-month follow-up so far. 20% and 45% of the participants have ≥ 1 falls and near-falls respectively over 12 months. Taking ≥ 5 medications (Odd ratios [OR] = 3.38, $p = 0.033$); and fear of falling (OR = 1.08, $p = 0.041$) significantly predicted falls. A history of falls (OR = 3.67; $p = 0.003$), having multiple near-falls in 1 month (OR = 6.00, $p = 0.029$), and anxiety symptoms (OR = 1.09, $p = 0.021$) significantly predicted near-falls.

Conclusion: The preliminary results show that the risk factors for near-falls and falls in community-dwelling older adults are potentially different. Further study using more sample is therefore indicated to fully understand the factors contributing near-falls in older adults.