

**FALL RISK AND FITNESS AMONG OLDER ADULTS ENROLLED IN BALANCE AND STRENGTH TRAINING CLASSES**

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**Background** The fall risk profile of older adults who participate in community balance/strength classes for fall prevention is not well described.

**Aims/Objectives/Purpose** We examined fall risk and fitness in older adults taking N'Balance™, an 8-week community-based balance/strength programme.

**Methods** All 241 first-time participants aged 60+ in 34 consecutive N'Balance programmes held in the study community completed surveys, and staff-administered 30-second chair stand and 8-foot up-and-go tests, during the first and last class. 89% consented to release results to investigators. We calculated fall risk and fitness estimates with Wald 95% CIs. We analysed before-after changes using paired-t or Wilcoxon signed-rank test.

**Results/Outcomes** Mean participant age was 75.7 years; 82.1% were female, 96.7% had secondary or higher education, and 26.1% (95% CI 20.5% to 32.7%) had BMI $\geq$ 30. Half (48.1%; 41.3%, 54.9%) had fallen at least once in the past year. Overall, 79.9% (73.9%, 84.8%) had at least one important fall risk (age $\geq$ 75, fairly-to-very concerned about falling, frequent 'near falls', or fall history). At post-test (83% response), frequency of 'near' falls decreased significantly ( $Z=-6.816$ ,  $p<0.001$ ); fear of falling (Short Fall Efficacy Scale-International) declined by 0.8 points ( $p<0.001$ ), 30-second

chair stand improved by 1.7 stands ( $p < 0.001$ ), and 8-foot up-and-go improved by 1.1 s ( $p < 0.001$ ).

**Significance/Contribution to the Field** Most older adults in community balance/strength classes are at high risk of falls, indicating that such classes are successfully reaching those in need of fall prevention. The N'Balance programme decreased self-reported 'near' falls and fear of falling, and improved fitness; controlled evaluation of its effect on falls is needed.