Health Services & Systems Research Category
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A Randomised Controlled Trial of Screening, Risk Modification and Physical Therapy to Prevent Falls among the Elderly Recently Discharged from the Emergency Department to the Community

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Aims: Falls are the leading cause of injury among the elderly, but falls can be prevented and predicted. Translating this understanding into an integrated clinical and public health programme is a critical challenge. We hypothesised that an evidence-based program of screening, risk modification and physical therapy in the community would reduce the falls incidence among high-risk elderly Singaporeans recently discharged from the Emergency Department (ED).

Methodology: The Steps to Avoid Falls in the Elderly (SAFE) study is a multi-centre, two arm, parallel group, randomised controlled trial. Study participants were randomly assigned into either the control or the intervention group. The study intervention provided an exercise program at home or in a group setting in the community for three months. The primary outcome measure was the number of fallers during the nine-month study period. All analyses performed were on an intention-to-treat basis. This study is registered with the U.S. Clinical Trials Registry, number NCT01713543.

Result: At the end of the study period, 37.9% and 30.5% in the control and the intervention group fell at least once, respectively, which was not statistically significantly different. The intervention group had significantly fewer individuals with injurious falls and less decrease in physical performance. Multivariate analyses indicated a strong interaction effect between the presence of critical comorbidities and intervention group. Accounting for this effect, the intervention program significantly reduced the number of fallers.

Conclusion: In this heterogeneous population, the proportion of fallers during the study period was not significantly lower in the intervention group than the control group. Secondary analyses strongly suggest that individuals with irreversible comorbidities may not benefit from the SAFE-type program; however, individuals with less comorbidity may substantially benefit. This study informed decision makers in development of falls prevention policies and programmes at both clinical and community levels.