

POSTER ABSTRACT

Reducing falls through a multifactorial intervention in frail older adults.

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Introduction

Frail elders are at higher risk of falls, with associated morbidity and mortality. Our objective was to reduce the percentage of falls in frail older people after a multifactorial and systemic intervention.

Theory/Methods

Design: before-after quasi-experimental study, with own individual as control. Scope: patient's living place, in the metropolitan area of Buenos Aires city. Recruitment period: from 01/10/2017 to 31/04/2018. Baseline assessment and 3-month follow-up. Inclusion criteria: ≥ 65 years with criteria of frailty according to the treating physician. Exclusion criteria: rejection of intervention or dying patient. Description of the intervention: a health and social-care counsellor systematically evaluated different dimensions for falls prevention and intervened according to need in each case in: environmental safety, prescription and training in the use of walking aids, strengthening exercises, improvement of the patient's network of care, and medication reconciliation. The change in the percentage of people with falls in the last month (McNemar) was analyzed by intention to treat.

Results

We included 108 persons. Average age was 85.2 years (SD 6.2). Women: 79.6%. Average Barthel: 50.5 (SD 35.9). Severe or total dependence: 56.8%; dementia: 29.6%; living in nursing homes: 30.5%; polypharmacy: 82.4%. High risk of falls was present in 79.6% (95% CI 71.1-86.1). In the initial evaluation, 33.3% had fallen in the last month (95% CI 25.2-42.7). After the intervention, 13.9% (95% CI 8.6-18.6), $p < 0.001$. Previous falls rate was 50/100 persons (SD 87); posterior rate was 11/100 persons (SD 34), $p < 0.001$.

Discussion

This study had a pragmatic design, with very few exclusion criteria that allowed the inclusion of a representative sample of the reference population of frail older adults. In addition, it had multifactorial interventions that are feasible to deliver in many contexts, without relying on costly or difficult to access resources.

Conclusions

This multifactorial and systemic intervention in frail elders showed a reduction of people with falls of 41.7%, and a reduction of falls rate of 78%.

Lessons learned

This study shows that a multifactorial intervention for frail older adults to reduce falls in Latin America is feasible and effective.

Limitations

The quasi-experimental design can have biases that could justify the observed differences. However, all process measures (improvements in environment, care, medication reconciliation, and exercise, walking and use of supports) were positive, which reinforces the plausibility that at least part of the outcomes were indeed due to the interventions.

Suggestions for future research

A multicenter randomized controlled trial that includes this intervention in one treatment arm. Possibly with other arms that compares it with usual care, and the multifactorial intervention with medication management combined.