

Reducing Falls in Residential Aged Care: A Ward-Based Multifactorial Intervention

Postgraduate sample · Australian academic standard

Background

Falls are the leading cause of injury-related hospitalisation among older Australians, and residents of aged care facilities fall at roughly twice the rate of older adults living in the community. Cognitive impairment, polypharmacy and reduced mobility are consistent contributors. The Aged Care Quality and Safety Commission monitors falls as a mandatory quality indicator, and falls prevention sits within the National Safety and Quality Health Service Standards overseen by the Australian Commission on Safety and Quality in Health Care. Single-strategy programmes, such as exercise alone, have produced only modest results in this setting, which has directed attention towards multifactorial interventions that target several risk factors at once.

Aim and Research Question

The project aimed to evaluate whether a ward-based multifactorial falls intervention could reduce the resident fall rate in a metropolitan residential aged care facility across six months. The research question asked: does a bundled intervention combining individual risk screening, pharmacist-led medication review, vitamin D supplementation, staff education and environmental modification lower the fall rate compared with the preceding six-month period?

Methods

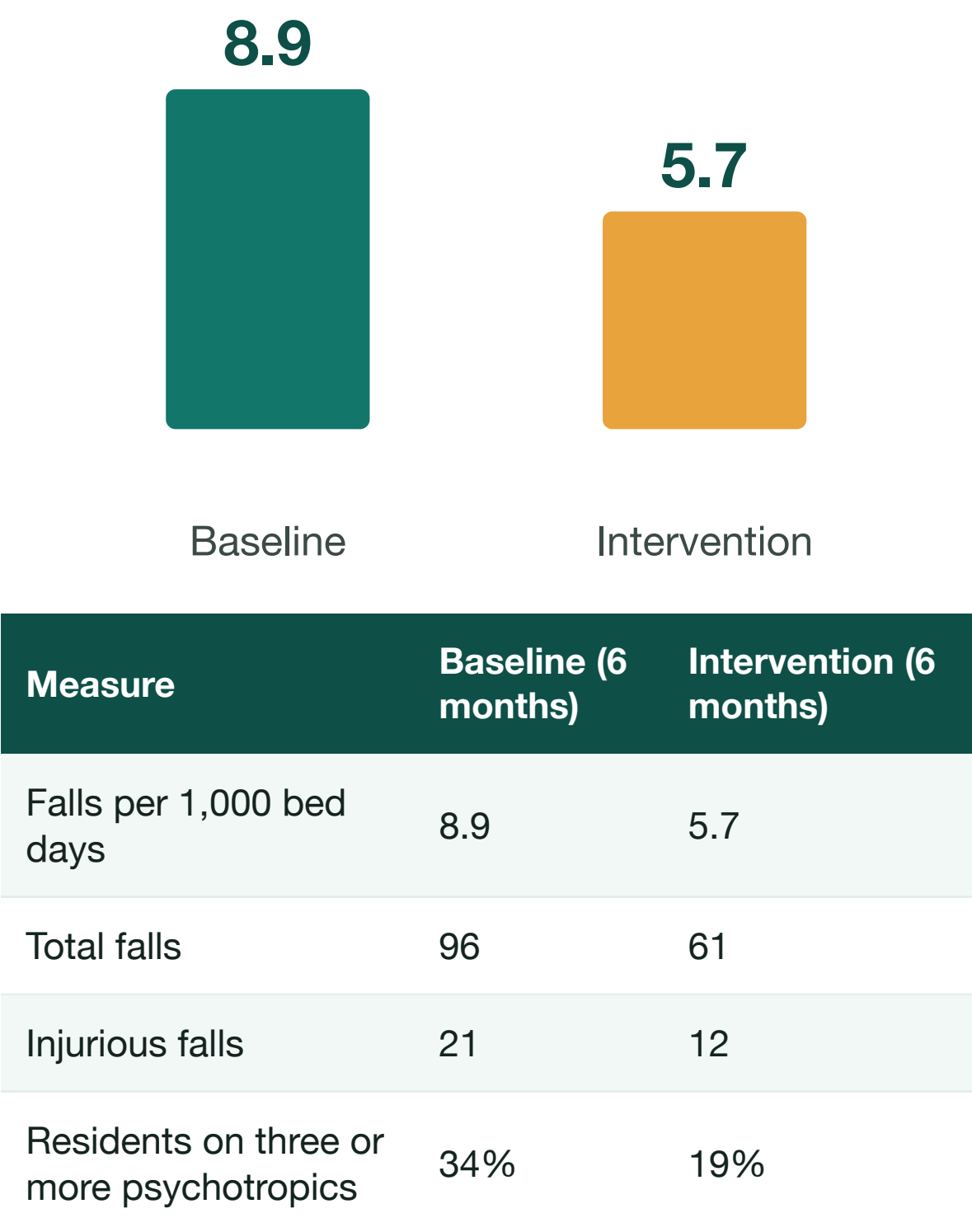
A pre-post quasi-experimental audit was conducted across two 30-bed wards, involving 58 residents with a mean age of 84 years. The intervention bundle was delivered over six months and comprised:

- Falls risk screening on admission and monthly, using the Ontario Modified STRATIFY tool.
- Pharmacist-led medication review, prioritising the deprescribing of psychotropics.
- Vitamin D supplementation where clinically indicated.
- A four-module staff education programme covering safe transfers, footwear and observation.
- An environmental audit covering lighting, floor clutter and bed height.

The primary outcome was falls per 1,000 occupied bed days, extracted from mandatory incident reports. Data were analysed as an incidence rate ratio with a 95% confidence interval, with a chi-square test for injurious falls. Facility and university ethics approval were obtained before commencement.

Results

The fall rate declined by 36% between the baseline and intervention periods.



- Incidence rate ratio 0.64 (95% confidence interval 0.46 to 0.88).
- Injurious falls nearly halved, from 21 to 12.
- Psychotropic load fell following structured medication review.
- Staff completed 92% of the education modules.

Discussion

The reduction is consistent with systematic review evidence that multifactorial programmes lower falls in residential aged care, although reported effect sizes vary considerably. Medication review appeared influential, matching the well-documented association between psychotropic use and falling. The pre-post design cannot exclude seasonal variation or regression to the mean, and reliance on incident reporting may understate the true fall count. Sustained staff engagement, supported by nominated ward champions, is a plausible reason for the high adherence observed.

Conclusion

A ward-based multifactorial intervention was associated with a clinically meaningful reduction in falls over six months. The findings support embedding structured medication review and continuing staff education within routine care. A stepped-wedge trial across several facilities would provide stronger causal evidence and test whether the effect is sustained beyond the initial period.

References

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