

The impact of teach back education to reduce prevalence of falls in low- and high-risk rehabilitation inpatients

Miles, K.,¹ Fotopoulos, R.,¹ Hutchinson, A.,² Khaw, D.² & Hooper, S.¹

1. Rehabilitation and Mental Health, Epworth HealthCare
2. Centre for Quality and Patient Safety Research, Deakin-Epworth HealthCare Partnership

Introduction

'Teach back' methods of patient education that involve verifying patients' understanding of healthcare instructions may assist with falls reduction in inpatient rehabilitation settings. However, whether such strategies are more effective for cognitively impaired patients at high risk of falling has not been empirically established.

Aims

This study, undertaken in Epworth HealthCare inpatient rehabilitation wards, aimed to:

1. Explore the impact of teach back education on the prevalence of falls during hospitalisation;
2. Examine whether the impact varies according to the level of falls risk and presence of cognitive impairment.

Methodology

- *Study design* - quasi-experimental mixed methods study involving retrospective review of patient charts and RiskMan falls datasets.
- The intervention ($n = 2$) and control ($n = 2$) wards were purposively selected to have a similar cohort of general rehabilitation patients. Intervention wards were located at different hospital campuses to mitigate contamination of controls.

Results

Patient characteristics

Characteristics of patients assessed to be at low or high risk of falling are presented in Fig 1.

High risk patients were:

- Significantly older, $p < .001$
- Had significantly higher odds of cognitive impairment, $OR = 2.8$, 95%CI (2.0 – 3.9) $p < .001$.
- Had significantly longer length of stay, $p < .001$.

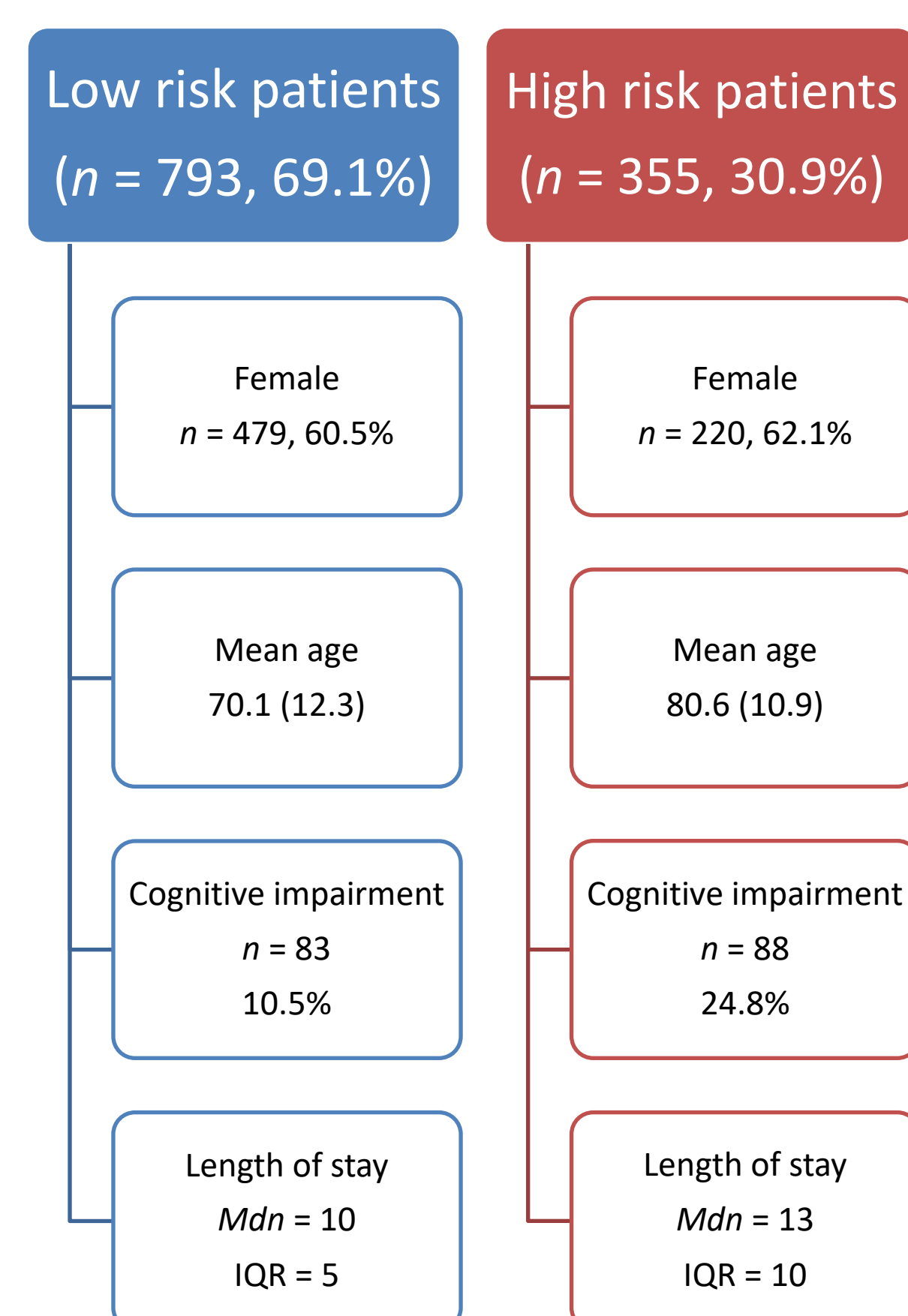


Fig 1. Characteristics of patients at low and high risk of falls

Results (cont.)

Designs of studies included

- Compared to patients on control wards, patients on interventional wards were significantly less likely to fall, $OR = .35$, 95%CI (0.18 – 0.65), $p = .001$
- Patients assessed to be a high falls risk had 8.3 times the odds of low-risk patients to have a documented fall during admission, $OR = 8.3$, 95%CI (4.0 – 17.0), $p < .001$.
- The prevalence of falls during admission are described for high and low risk patients and patients with and without cognitive impairment in Table 1.

Table 1. Associations between use of teach back and falls

	Prevalence of falls			p-value
	Intervention	Controls	Total	
High falls risk	14 (7.4%)	20 (12%)	34 (9.6%)	.205 ^{a,b}
Low falls risk	1 (0.2%)	9 (2.9%)	10 (1.3%)	.001 ^c
Cognitive impairment	5 (4.4%)	4 (6.8%)	9 (5.2%)	.493 ^c
No cognitive impairment	10 (1.8%)	25 (6.0%)	35 (3.5%)	<.001 ^{a,b}

There was no statistically significant effect of the intervention ward on falls in patients assessed as high falls-risk or cognitively impaired. Rather:

- Low falls-risk patients on intervention wards were significantly less likely to fall than their counterparts on control wards, $OR = 0.69$, 95%CI (0.009 – 0.545), $p = .011$.
- Patients with no documented cognitive impairment on intervention wards ($\phi = .113$) were significantly less likely to fall than their counterparts on control wards, $OR = 0.28$, 95%CI (0.13 – 0.59), $p < .001$.

Conclusions

The teach back intervention was associated with considerable reduction in falls prevalence. Results suggested it was more effective in reducing falls among low risk and non-impaired cohorts. The assumption that reinforcing patients' understanding of falls risk reduction through teach back would be more effective with cognitively impaired patients did not hold. Falls awareness and staff education initiatives should therefore be directed to promoting the use of teach back communication techniques with all patients admitted for rehabilitation regardless of falls risk status.