

Reducing Fall Rates among Geriatric Psych Inpatients:

NICOLE BROWN:

MEYER 6; JOHNS HOPKINS UNIVERSITY SCHOOL OF NURSING, BALTIMORE, MD 21205

MENTOR: JOYCE PARKS

Funding Source:

The Helene Fuld Leadership Program for the Advancement of Patient Care Quality and Safety

Acknowledgements:

Mary Cooper, Greg Pontone, Janice Knowles, Rachel Skolky, Jessalyn Ciampa, Carla Aquino, & Chiadikaboi Onyike

Background

It is a known fact that older adults are at an increased risk for falling due to numerous physiological factors (CDC, 2013). However, it is less known that psychiatric inpatients of this age group are at a further increased risk for falls due to certain population-specific risk factors such as: confusion, use of psychotropic, medications and electroconvulsive therapy treatment (Estrin et al, 2009).

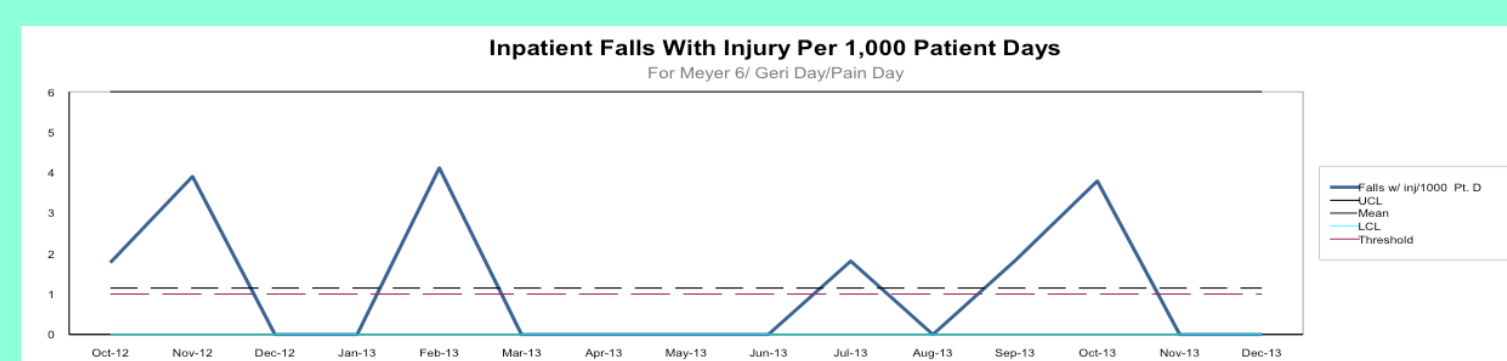
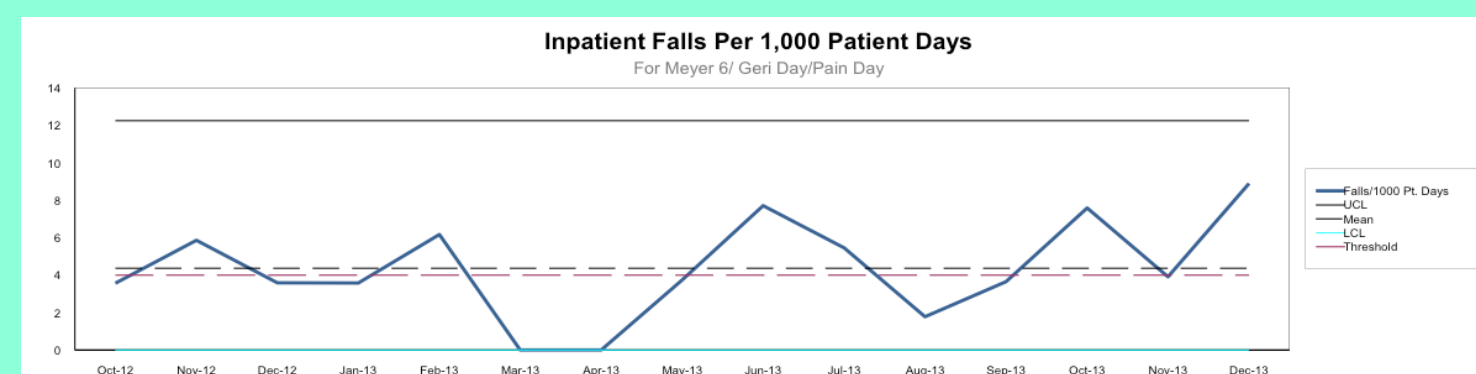
Meyer 6 is a geriatric psychiatry unit at JHH with the highest fall rate among all hospital psych units. Their rate of falls in 2013 was 6.88 falls per 1,000 patient days (Johns Hopkins Department of Nursing, 2014). Thus, the *Otago Exercise Program* was identified as an evidence-based practice to improve balance and strength, and thereby reduce fall risk among community-dwelling older adults (Thomas, Mackintosh, & Halbert, 2010, p.682). We are also extending its use to reduce “deconditioning” among patients which includes physical losses common to periods of inactivity (Gillis & MacDonald, 2005). To apply this intervention to Meyer 6, this program has been tailored to meet the needs of the unit population.

Objectives

- Reduce physical deconditioning on the unit as evidence by pre-test/post-test balance and strength measures.
- Reduce the monthly fall rate to ≤ 4 falls per 1,000 patient days for ≥ 6 months.

Methods

- 1) Systematic review of 15 articles using Cochrane database
- 2) Identification/tailoring of intervention
- 3) IRB application submission
- 4) Pilot testing based on approved *Otago* exercises



Johns Hopkins Department of Nursing. (2014). [Graph illustration of unit fall rates for 2013 year] Patient Fall Rates: Meyer 6/Geri Day/Pain Day FY14 Q2. Retrieved from Joyce Parks.

Results

The project began with the systematic review from Cochrane database during which 15 articles were evaluated. This revealed confirmation that the *Otago exercise program* was applicable to our unit population but that we would have to focus on individual-tailored exercises to be successful.

Pilot testing began after IRB submission and lasted about 3 months. Preliminary participants were identified by PT based on inclusion/exclusion criteria and were evaluated based on set pre-test/post-test measures. Exercises were inconsistently completed for 6 patients, without staff involvement. Findings from the pilot testing were inconclusive (TUG $t=1.38$, $p = .28$; Tinetti Balance Scale $t= -1.15$, $p=.34$)

Pilot Participant Data

Biographical Data	Psychological Diagnoses	# of High Fall Risk Meds	Fall Risk Scores (JH Assessment)	Start Date	End Date	Pre-test	Post-test	# of Sessions	# Completed
Participant 1 77 y/o Male	Bipolar II, MDD, insomnia	4	Moderate risk for falls: no falls in 6 months	5-Feb	10-Feb	TUG 16.9, Tinetti 23,	TUG 10.26, Tinetti 24	4	4
Participant 2 79 y/o Female	MDD recurrent severe, claustrophobia, GAD	4	High fall risk: >1 fall in 6 months	5-Feb	6-Feb	TUG 10.2, Sit-Stand 10/30 sec, Tinetti 26	TUG 10.57, Tinetti 26	2	1.5
Participant 3 66 y/o Male	MDD recurrent moderate, pain disorder associated with psych and physical factors	5	High fall risk: 1 fall during admission	5-Feb	28-Feb	TUG 56.4, Tinetti 14, Sit-stand 13/30	TUG 30.4, Tinetti 23	11	10
Participant 4 66 y/o Male	Adjustment disorder with depressed mood, demoralization, cannabis abuse	5	High fall risk: >1 fall in 6 months	26-Feb	27-Feb	TUG 15.25, Tinetti 14, SS 8/30	X	2	1.5
Participant 5 69 y/o Male	MDD recurrent severe, hyposomnia, pain disorder with psych factors	4	High: >1 fall in 6 months	26-Feb	5-Mar	TUG 26.3, Tinetti 26, SS 8/30	Tinetti 26	3	2
Participant 6 89 y/o Female	MDD recurrent severe, mild cognitive disorder, acute delirium	4	High: >1 fall in 6 months	25-Mar	4-Apr	X	X	4	3.5

Conclusions

- Identified appropriate intervention to be tailored for unit.
- Pilot testing revealed insignificant findings and little effect on deconditioning, possibly due to limited participant approval by PT.
- Deficiency of staff buy-in for project limited implementation capabilities.

Future Directions

- Identify additional project champions
- Interdepartmental collaboration and communication to plan exercises around other therapies
- Improve communication strategies with PT to coordinate participant referrals
- Proceed to full project implementation following IRB approval

References

Center for Disease Control & Prevention. (2013). *Falls among older adults: An overview*. Retrieved from <http://www.cdc.gov/homeandcommunity/safety/falls/adultfalls.html>

Estrin, I., Goetz, R., Hellerstein, D., Bennett-Staub, A., & Seirmarco, G. (2009). Predicting falls among psychiatric inpatients: a case-control study at a state psychiatric facility. *Psychiatric Services, 60*(9), 1245-1250.

Gillis, A., & MacDonald, B. (2005). Deconditioning in the hospitalized elderly. *Canadian nurse, 101*(6).

Johns Hopkins Department of Nursing. (2014). [Graph illustration of unit fall rates for 2013 year] Patient Fall Rates: Meyer 6/Geri Day/Pain Day FY14 Q2. Retrieved from Joyce Parks.

Thomas, S., Mackintosh, S., & Halbert, J. (2010). Does the 'Otago exercise programme' reduce mortality and falls in older adults?: A systematic review and meta-analysis. *Age and Aging, 39*:681-687. doi: 10.1093/aging/aq1102



JOHNS HOPKINS
SCHOOL of NURSING