

Exercise Interventions - a key strategy to prevent falls in a long stay mental health facility

Prepared and presented by

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Macquarie Hospital

- 180 bed psychiatric teaching hospital in the Northern Sydney Local Health District (NSLHD)
- Chronic and acute care in a range of facilities from closed to open ward environments and onsite independent group cottages
- Recovery and rehabilitation services for a range of people with mental illness from geriatric to drug and alcohol dual diagnosis
- On and off ward programs catering for a wide range of activities, skills and training, vocational, educational, recreational and physical health
- Length of stay varies from long term residential to short stay recovery



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Falls at Macquarie Hospital

2006	2007	2008	2009	2010	2011	2012	2013
159	172	173	178	207	171	191	156

2013 figures

Long Term Recovery Units: (n=130) 83%

- Unit 1 n=78
- Unit 2 n=23
- Unit 3 n=22
- Unit 4 n= 7





Unit 2

- 20 beds
- Closed ward – some patients attend day program area, leave is usually escorted
- Primary diagnosis is Schizophrenia or schizoaffective disorder - chronic and treatment resistant.
- Co-morbidities – obesity, diabetes, epilepsy, autism, cerebral palsy
- Illness and side effects of medications cause lethargy, sedation low motivation
- Patients are sedentary +++, poor activity tolerance





Quality Improvement Project

Exercise Interventions as a key strategy to prevent falls in a long stay mental health facility

Multi-disciplinary Project

- Accredited Exercise Physiologist.
- Exercise Physiology Students on clinical placement from University of Sydney
- 3 x nurses (EN's)



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Basic Steps[®]

A program for staff who work with less active and frailer older adults with an increased risk of falls.

TO ORDER

Healthy Lifestyle

Northern Sydney Local Health District

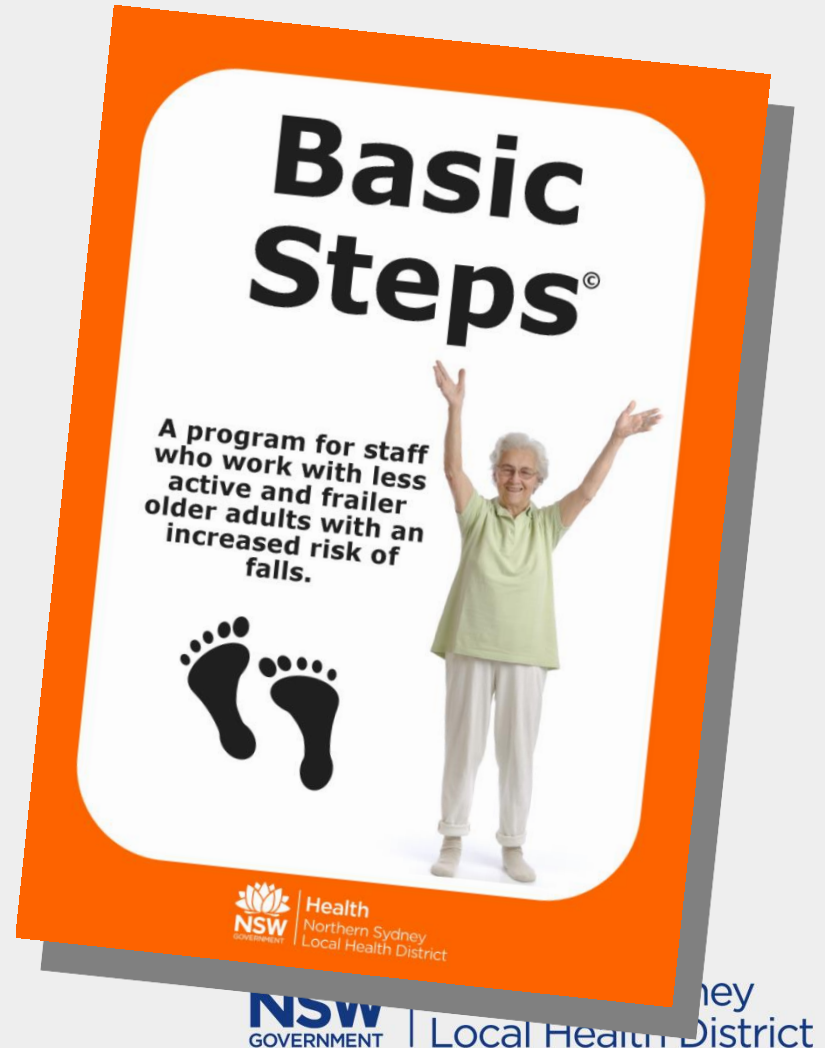
Health Promotion Service

(02) 8877 5321

Cost \$40 for DVD and Manual + postage

(Additional Staying Active Staying Safe

DVD \$17)





Participants

21 patients received a baseline assessment

11 completed all 3 assessments (Baseline, 16 weeks, 32 weeks)

Reasons for drop out - moving wards, refused, poor mental health status

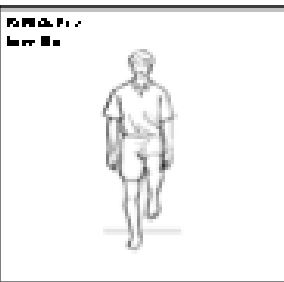
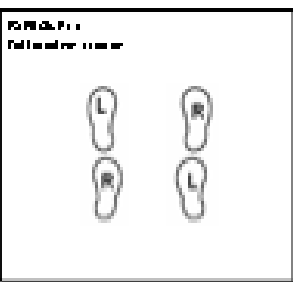
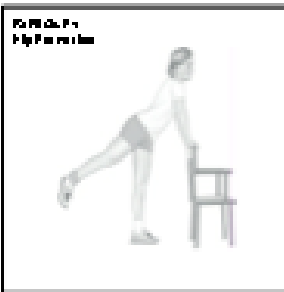
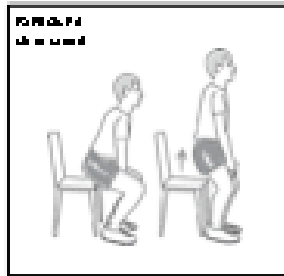
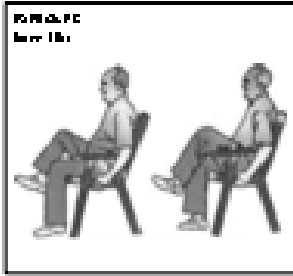
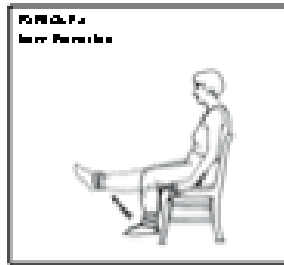
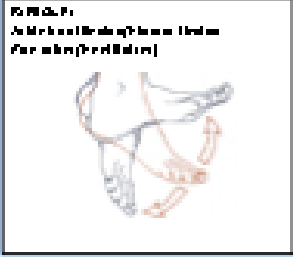


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Assessments



- Timed up and go – Dynamic balance and agility
- Tandem stance – Static balance
- Sit to stand 5 reps- lower limb strength and balance
- Alternate step – lateral stability

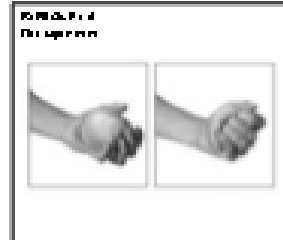
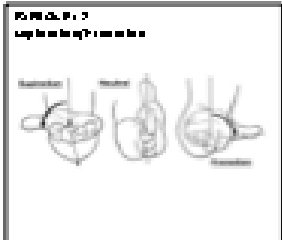
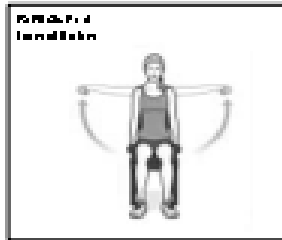
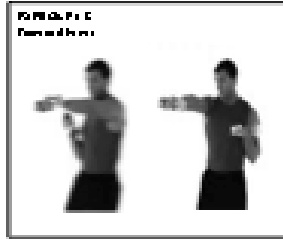
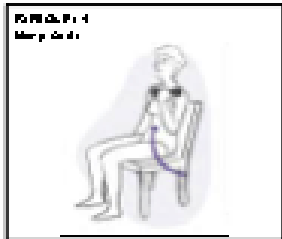
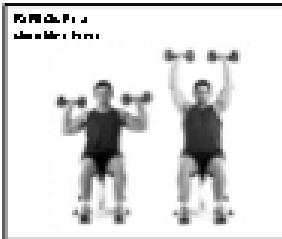


Sessions
3 x week

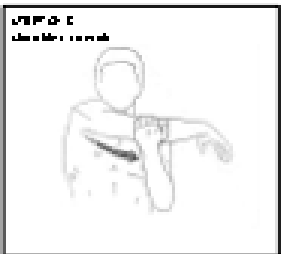
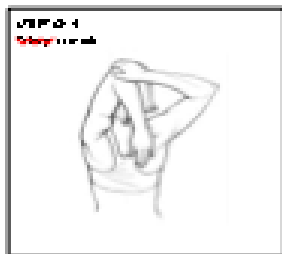
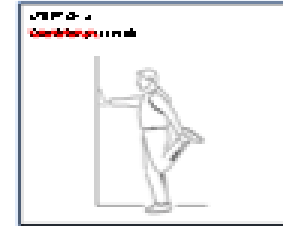
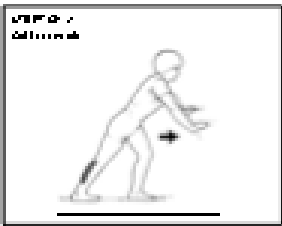
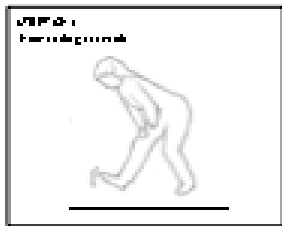
Monday
Wednesday
Friday



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STRETCHES



This program is for a lower population group. It includes Physio-Health.

It is a self-paced program. It is designed to be used by people with a range of abilities. It is a self-paced program. It is designed to be used by people with a range of abilities. It is a self-paced program. It is designed to be used by people with a range of abilities.

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Can be done with legs on ground or legs on a ball and/or a wall. It is a self-paced program. It is designed to be used by people with a range of abilities. It is a self-paced program. It is designed to be used by people with a range of abilities.

Seated or standing

Upper and lower body

Exercise to music

Equipment

Stretches



Assessment Results

Table 1: Descriptive statistics for the 5 rep Sit to Stand test over time (in seconds)

	N	Mean	Std. Deviation
Time 1 Sit to Stand	11	17.99	6.61
Time 2 Sit to Stand	11	14.42	5.60
Time 3 Sit to Stand	11	13.02	5.44

Table 2: Descriptive statistics for the Timed up and Go test over time (in seconds)

	N	Mean	Std. Deviation
Time 1 Timed Up & Go	11	12.50	5.43
Time 2 Timed Up & Go	11	10.66	5.09
Time 3 Timed Up & Go	11	9.22	4.77

Assessment Results

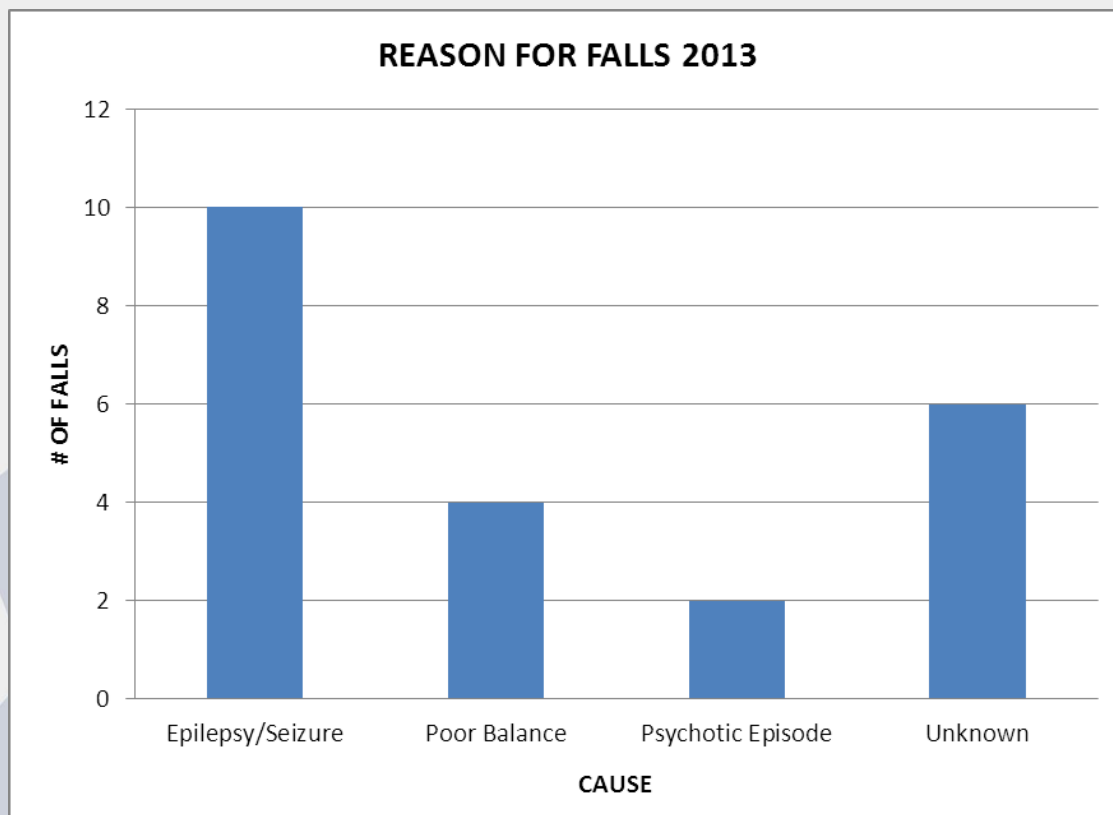
Table 3: Descriptive statistics for the Alternate step test test over time (in seconds)

	N	Mean	Std. Deviation
Time 1 Alternate Step	9	14.89	4.10
Time 2 Alternate Step	9	9.38	2.50
Time 3 Alternate Step	9	11.56	.91

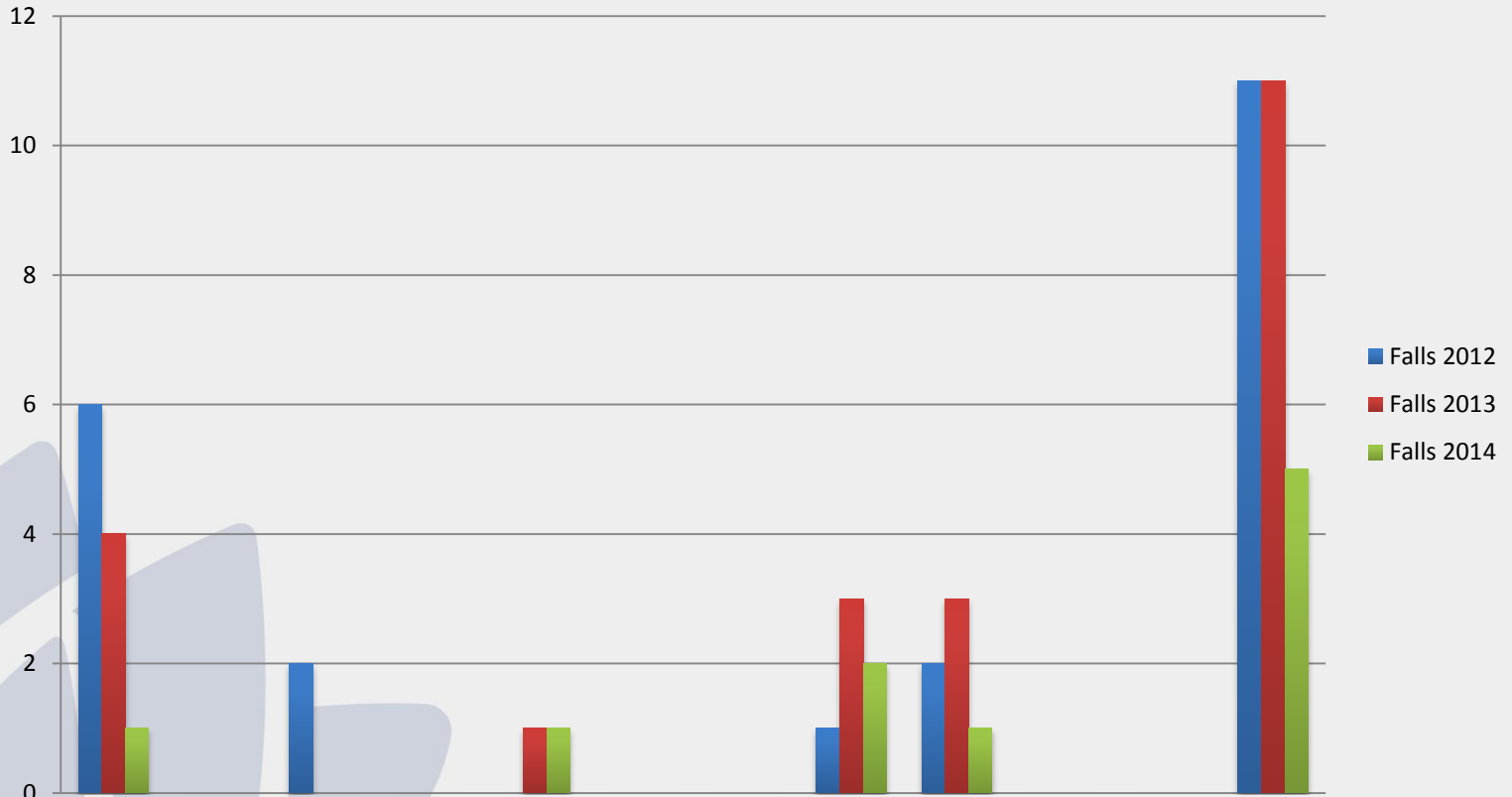
Table 4: Frequencies for tandem stance

	Time 1		Time 2		Time 3	
	Frequency	Percent	Frequency	Percent	Frequency	Percent
Yes	5	45.5	9	81.8	9	81.8
No	6	54.5	2	18.2	2	18.2
Total	11	100	11	100	11	100

The number of Falls by reason for 2013



Falls 2012 -2014



	N	Mean	Std. Deviation
Falls 2012	11	1.00	1.84
Falls 2013	11	1.00	1.55
Falls 2014	11	.45	.69



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Where to....

- Project commenced on 2 other long term recovery wards in June
- Approx another 30 participants
- Trained another 10 staff in Basic Steps
- Long term goal for formal research project within NSLHD.





Acknowledgements

- Wellbeing Unit at Macquarie Hospital
- Nursing staff at Unit 2
- Sydney University Exercise Physiology students
- Basic Steps program – NSLHD Health Promotion Dept.
- Research Centre Macquarie Hospital
- Macquarie Hospital Falls Committee

