

# Is An Evidence Based Rehabilitation Falls Group Effective In Improving Balance and Confidence In Older Adults?



**Beverly Harrison & Lorraine MacKay**

Physiotherapy Technical instructors, Whitefield Assessment and Rehabilitation Centre, Queen Margaret Hospital

## AIM:

Whitefield Day Hospital provides Multi-Disciplinary rehabilitation input for community dwelling older adults with multiple co-morbidities, including Parkinson's, stroke and dementia. The Physiotherapy Technical Instructors run an evidence based exercise group for those people who either have fallen or at risk of falls, which focuses on improving strength and balance.

The aim of this project was to measure the impact participating in the group was having on balance and fear of falling.

## METHOD:

Two separate audits were completed using the Berg Balance Scale (BBS) (Muir et al 2008) and the Modified Falls Efficacy Scale (MFES) (Tinetti et al 1990). The BBS and MFES were chosen as both are valid and reliable tools used widely within both hospital and community settings.

Data was collected from fifty people who attended the group for a minimum of eight weeks. Those who had an MFES or BBS completed on initial assessment and again on discharge were included and the results collated. The data sets overlapped but were not congruent. The percentages of the scores were analysed using descriptive statistics.

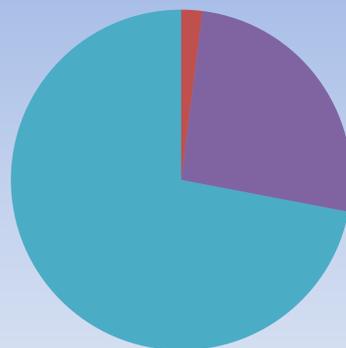
## KEY MESSAGE:

Participating in the group helped to improve balance and falls efficacy in community-dwelling older adults attending Whitefield Assessment and Rehabilitation Centre

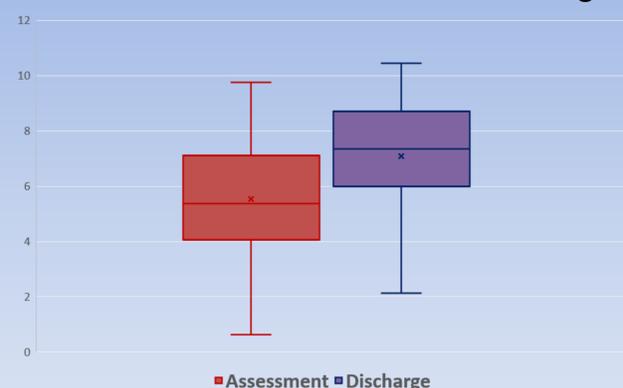
Berg Scores on assessment



Berg Scores on discharge



MFES Scores on Assessment and Discharge



## BERG RESULTS:

**There was an average improvement of 6 points or more.**

36% of the patients improved by greater than the minimum detectable change (Donoghue & Stokes, 2009).

24% of the patients were unable to achieve this as they scored 50 or over on admission demonstrating the ceiling effect of the BBS.

## MFES RESULTS:

**86% of patients improved their MFES score.**

38% scored 8 or above. The mean score on initial assessment was 5.5 and 7.08 on discharge. A score of 8 or above is clinically significant and indicates a reduced fear of falling.

## References:

Donoghue, D. and Stokes, E.K., (2009). How much change is true change? The minimum detectable change of the Berg Balance Scale in elderly people. *Journal of Rehabilitation Medicine*, 41(5), pp343-346  
Muir, S. W., Berg, K., Chesworth, B., and Speechley, M. 2008. Use of the Berg Balance Scale for Predicting Multiple Falls in Community-Dwelling Elderly People: A Prospective Study, *Physical Therapy*, 88, 4, pp449-459  
Tinetti, M. Richman, D., and Powell, L. 1990 Falls efficacy as a measure of fear of falling. *Journal of Gerontology* 45: pp239 - 243.

Contact: Beverly Harrison & Lorraine Mackay. Whitefield Assessment and Rehabilitation Centre, Queen Margaret Hospital, Dunfermline, KY12 0SU. [beverlyharrison@nhs.net](mailto:beverlyharrison@nhs.net) [lorrainemackay1@nhs.net](mailto:lorrainemackay1@nhs.net)