CAMDEN & ISLINGTON PCT FALLS EXERCISE SERVICE (FES)

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Introduction

Exercise is effective as part of a multifactorial or unifactorial intervention to reduce the number of falls and the seriousness of falls related injuries in older people with a high risk of falls. The 2004 Cochrane review, and subsequent NICE Falls Guidelines, suggested that home based, professionally tailored, evidence based, dynamic balance and strength exercise training is effective but that further trials were required to examine group based falls exercise management programmes. However group exercise comprising adapted Tai Chi or strength and balance was recommended for falls prevention. Since then, supervised group exercise that also includes floor training skills, has been found to be effective in managing falls (1). Further research is required on the frequency, duration and format of exercise and on its implementation within health services.

Therefore, we established a partnership (Camden & Islington PCTs Reach Teams, Royal Free Hospital, Whittington Hospital, Camden Active Health Team, Islington Aquaterra Leisure, Royal Free and University College London Medical School (RFUCLMS), University of Manchester and the University of Derby) to develop and evaluate the Camden & Islington Falls Exercise Service (FES) as part of the local Falls Care Pathway. Other partners include Age Concern Camden and Help the Aged.

'Instructor demonstrates multilevel adaptation of Boneloading Training'

'Strength Training'

'Balance Training'

'Functional Training'

Methodology (Service Design)

Stage 1. Patients (history or high risk of falls; independently ambulatory with or without aids; absence of significant cognitive deficit or confusion) were recruited through Reach Team physiotherapists. The intervention comprised a 12 week community strength and balance exercise programme (x1 supervised 1 hour group; x2 monitored 20 min home based) in day hospitals, day centres and GP practices. A Senior Physiotherapist was present at week 1 to verify appropriateness of referral and instructor procedures. Assessment was performed at weeks 1 and 12. Outcome measures included the Timed Up and Go (TUAG), Functional Reach (FR), 180 deg Turn and Confidence in Maintaining Balance (ConFBal). The intervention and assessments were run by qualified, experienced, Postural Stability Instructors (2) with additional scheme specific training and there was ongoing evaluation and quality assurance by RFUCLMS.
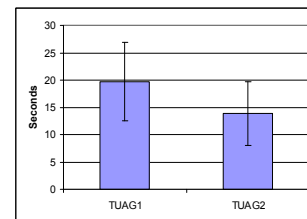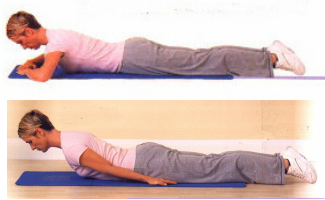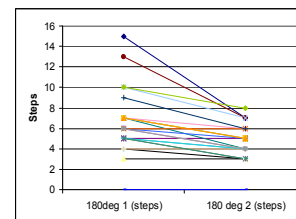
Fig 1. Group Improvements in TUAG

Fig 2. Individual Improvements in 180 degree turn

Results

Attendance: 26 participants (8 men and 18 women) mean age 82.1 (sd 5.5) years with pre & post – 12 weeks data. Average attendance (out of 12 sessions) 9.8 (sd 1.8). 47 patients referred out of potential 128; 17 refused (36.1%); 30 agreed (63.8%); 26 completed (86.7%)12 week programme.

TUAG improvement (paired t-test) highly significant ($p<0.001$). Pre: mean 19.6 (7.2) secs; Post: mean 13.9 (5.8) secs. (Fig1)

FR improvement (paired t-test) highly significant ($p<0.001$). Pre: mean 17.6 (6.0) cms; Post: mean 2.6 (7.0) cms.

180 deg turn improvement (paired t-test) highly significant ($p<0.001$). Pre: mean 6.9 (2.7) steps; Post: mean 4.9 (1.4) steps. (Fig 2)

ConFBal improvement (wilcoxon rank test) highly significant ($p=0.0002$). Pre: mean 19.5 (10-30) range; Post: mean 14.0 (8-21) range.

The Future

Stage 2 and 3 involves the phased extension of the referral pathway to physiotherapy outpatient departments, primary care, orthogeriatric departments, health and social care professionals.

Conclusions

A community based, interdisciplinary FES can be effective in engaging older people with a high risk of falls in an evidence based, tailored exercise programme. The FES programme produced small but statistically and clinically important changes in balance and confidence.

Reference

(1) Skelton DA, Dinan SM, Campbell M, Rutherford OM. FaME (Falls Management Exercise): An RCT on the Effects of a 9-month Group Exercise Programme in Frequently Falling Community Dwelling Women age 65 and over . JAPA 2004;12 (3); 457-458 (Abstract). Full paper in press, Age and Ageing. (2) Skelton DA. The Postural Stability Instructor: Qualification in the UK for Effective Falls Prevention Exercise. JAPA 2004 12 (3); 375-376