

Get Up and Go: Strength and Balance Exercise Programme for Older People in Ealing

A Falls Prevention Pilot developed and delivered by Active Ealing from 1 April '14 to September '15

Ealing Public Health, through the Better Care fund, commissioned Active Ealing to develop and deliver a one year pilot programme to improve strength and balance function in older adults aged over 65, aiming to reduce hospital admissions due to falls. The budget for this 12 month pilot intervention was £80,000. Due to the success of the pilot, Public Health re-commissioned Active Ealing to deliver a further 17 Get Up and Go programmes between April and the end of September 2015 based on the same delivery specification that required delivery of 30 programmes in year 1 making 47 in total.

Background

Each year in the UK, about one third of people aged over 65 suffer a fall, with the combined cost of hospitalisation and social care estimated at £6million a day. Falls remain a major cause of injury and death amongst over 70s and account for more than 50% of accidental injury hospital admissions. Hip fractures, the most common serious injury resulting from a fall, affect 70-75,000 people each year in the UK and one third of people affected die within 12 months (NICE, 2013).

In Ealing, the rate for all hospital admissions and emergency hospital admissions (about 1,300) for older people are significantly higher than the national and London rates (JSNA 2014). Falls are the largest cause of emergency hospital admissions for older people, and significantly impact on long term outcomes, e.g. being a major precipitant of people moving from their own home to long-term nursing or residential care. The rates for injuries due to falls in persons aged 65 and particularly in those aged 65-79 are significantly higher in Ealing than the England average (JSNA, 2013).

Number of emergency hospital admissions due to falls in older people (65+) for all persons in Ealing:

2010/11: 932	2011/12: 1,036	2012/13: 1,113	2014: 1,300
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Interventions designed to reduce specific risk factors that are amenable to change can reduce the risk of falling. Strength and balance deficits are two such factors that can be improved with effective interventions. There is now very good quality evidence that strength and balance based exercise programmes can reduce the risk of falling in community-dwelling older adults by between 15-30% ([JSNA, 2014](#) and DoH, 2009).

Intervention

The intervention consisted of a structured programme of weekly one hour strength and balance exercise sessions, delivered in accordance with the evidence-based OTAGO programme.

Sessions were led by a physical activity instructor trained to deliver the evidence-based OTAGO strength and balance exercise programme.

Programmes were of two different durations: 16 and up to 50 week programmes

Location of programmes

The intervention was delivered from locations across the London Borough of Ealing, as an outreach programme. Settings for the exercise programmes included:

- Sheltered accommodation
- Community centres
- Day centres
- Care homes
- Leisure centres
- Community groups e.g. church halls and voluntary sector groups

Eligible population

People over the age of 65 with any/some or all of the following:

- A long-term health condition
- Self-reported concerns about balance, or a fear of falling
- Previous history of a fall or loss of balance
- People on more than one medication
- People with a desire to improve strength and balance

Participants had to be able to walk at least a few steps either unaided or with a walking aid such as a stick or a frame.

People with dementia or Parkinson's disease were not eligible for the programme, due to a lack of evidence of suitability and effectiveness of the OTAGO programme for people with these conditions.

Objectives of the intervention

1. To train and certify 10 approved OTAGO exercise programme trainers
2. To carry out 30 x 16-week strength and balance exercise programmes
3. To carry out 4 x 50-week strength and balance exercise programmes
4. For 300 participants to start the programme
5. For 170 participants to complete the programme (completion defined as 75% attendance or 12 of 16 weeks)
6. To see a 10% average improvement in Timed Up and Go and 4-Test Balance Scale measurements in participants at the end of the programme compared to a pre-programme baseline**



Project evaluation

The project was evaluated using before and after measures for participants as follows:

Self-reported measures:

- Number of falls in previous 4 months
- Number of falls in previous 12 months
- 6 point abbreviated balance scale (ABC-6)
- WHO-5 wellbeing scale.
- Qualitative feedback on programme.

Measurements by instructors:

- Timed Get Up and Go - measured mobility in people who were able to walk on their own (assistive aids permitted)
- 4-Test Balance Scale – up to four timed static balance tasks of increasing difficulty (completed without assistive aids)
- Attendance – participants needed to attend at least 12 of 16-weeks or 75% of the programme

** These statistics are not available for this report, the results do show the percentage of completers that gained an overall improvement in strength or balance over the duration of the programme from week 1 to the end of the programme regardless of if this was greater or less than the 10% target.

**** Self-reported falls – awaiting statistics from Public Health**

- 4-months pre-programme (both 16-weeks and 50-weeks)
- 4-months during programme (16-weeks)
- 12-months during programme (50-weeks)

Results

YEAR 1 (first phase delivered April '14 to March '15)

	Target	Result
Teachers trained	10	13*
Programmes (16-weeks)	30	51
Participants	300	506
Completers	170	348
Completion rate		68.77%
Functional fitness improvement of 10%		
Balance		84.77%**
Strength		82.76%**

Programmes (annual)	4	4
Participants	as above	51
Completers	as above	21
Completion rate		41.20%
Functional fitness improvement of 10%		
Balance		81%**
Strength		76.2%**

*Plus sourcing of 1 already qualified instructor

YEAR 1 (2nd phase, delivered in parallel with phase 1 from February to July '15)

	Target	Result
Programmes (16-weeks)	17	19
Participants	150	189
Completers	85	148
Completion rate		78.31%
Functional fitness improvement of 10%		
Balance		83.11%**
Strength		80.41%**

YEAR 2 BUDGET £20,000 (delivered April to September '15)

	Target	Result
Programmes (16-weeks)	17	23
Participants	150	258
Completers	85	190
Completion rate		73.64%
Functional fitness improvement of 10%		
Balance		78.42%**
Strength		81.58%**

** % of completers showing an improvement in Balance and Strength





The results suggest that people were more than twice as likely to improve their balance if they completed the programme; **81.63%** of participants that completed improved their balance compared to **39.33%** that did not complete the programme. The same is also said of strength improvements, where **82.94%** of people that completed improved their strength compared to **38.58%** that did not qualify to complete the programme.

Venues used

	Year 1	Year 2	Total
Community	23	38	61
Sheltered	21	3	24
Faith	9	0	9
Care	2	1	3

Activity locations (geographical)

	Year 1	Year 2	Total
Southall	22	18	40
Hanwell	10	6	16
Ealing (Broadway, South, West, Common, Northolt)	7	8	15
Northolt	5	5	10
Acton	4	5	9
Greenford/Perivale	4	3	7

Key delivery partners

- Age UK
- Ealing Council Sheltered Housing Schemes
- Catalyst Housing, Viridian Housing and Notting Hill Housing Trust
- United Anglo Caribbean Society
- Southall Neighbourly Care
- Southall Day Centre
- Dominion Centre
- Local churches / gurdwaras / faith venues
- Community Centres and Libraries
- William Hobbayne Trust
- Ealing Centre for Independent Living
- Albert Dane/Salvation Army

Value for Money

By removing the 4 annual programmes from the analysis at a combined cost of £5,715.50, the value for money equation covers 51 programmes from phase #1 and 19 from phase #2 in year 1 and 23 programmes across year 2, resulting in 93 programmes in total.

93 16-week programmes delivered

953 Participants started the programme

686 Completed 12 of 16 weeks or 75% of the programme

Operating budget of £100,000 - £5,715.50 = **£94,284.50**

Cost per programme = **£1,013.81**

Cost per Head for 16-week programmes

Participants (953) = **£98.93** per person per programme

Completers (686) = **£137.44** per person per programme

Cost per Person per week for 16-week programmes

Participants (953) = **£6.18** per week or per class

Completers (686) = **£8.59** per week or per class

As an indicative comparison, a missed GP appointment costs the NHS approximately £13.50 (NHS, 2014) and an Accident and Emergency visit costs the NHS between £69 and £129 per person per visit (Foundation Trust Network, 2012). Additionally, the cost per call across ambulance services varies between £144 and £216 and the cost per incident varies between £176 and £251 (National Audit Office, 2011). Furthermore, an overnight stay in hospital from £225-400 per bed (DoH, 2008), with a self-funded hip replacement costing between £7,613-8,925 (NHS, 2015).

Value for money has been developed and maintained through creating effective partnerships. If a service or provision already existed, such as a sheltered housing residence or a luncheon club, our input was added value to an established group and as such savings were made when venue hire was not incurred. Training instructors together at the same time and purchasing the equipment in bulk has also saved money and time, enabling a greater focus on the delivery of programmes.

Recommendations for future service delivery

Based on the findings from this pilot programme, Active Ealing's recommendations for this and similar health intervention would be:-

In Ealing, POPPI estimates suggest there will be 40% rise in hospital admissions due to falls by the end of 2030 (POPPI, 2011).

Recommendation 1: Continued investment in older adult physical activity interventions.

The key challenge for Adults' Services in Ealing is to deliver an excellent range of services to vulnerable individuals in need with significantly reduced levels of funding.

Recommendation 2: Continuity of established services with cost effective existing opportunities.

The approach is to develop proposals to deliver efficiencies, which protect frontline services where possible.

Recommendation 3: This pilot project can evidence a frontline service approach of exceeding delivery targets, within budget and accessing an increased number of residents, providing a template that can be used to develop similar services in the future.

Allow the skillset of the instructor to add value and variety to a programme.

Recommendation 4: Identify instructors who have the right personality to engage and enthuse this particular target group, adding value to sessions in a variety of ways such as playing a variety of music in a class or by adding a social group element to stimulate interest and engagement.

The OTAGO programme, modified to a group setting would appear to be the right level of intervention needed. If the qualification required was greater (Postural Stability for example at Level 4), a service provider's ability to deliver the number of programmes and upskill instructors would be of real concern. Similarly, if the level of qualification was reduced, it would also pose a threat to the programme as the duty of care, types of exercises and experience needed to work with this target group would suggest falls prevention cannot be met with a generic approach such as those adopted by Exercise to Music or Fitness / Gym Instruction alone.

Recommendation 5: It is essential to use qualified OTAGO instructors with a variety of experience and qualifications; this allows instructors to offer additional exercises where appropriate on top of OTAGO exercises; cardio vascular, mobility and flexibility exercises.

Peter Clarke, October 2015

Qualitative feedback from the programme



"Challenging, but enjoyable"
William, 80, participant in Greenford

"The feel good factor is amazing"
Carol, participant in Acton

"I do the exercises at home whilst watching TV rather than just sitting"
Ray, participant in Northolt



"I never dreamt that you could do so much in a chair"
Pauline, participant in Acton

"We feel much more sprightly after our exercise"
Vicky, participant in Acton



"I do the exercises at home and I can feel the difference"
Deena, participant in Southall

"The exercises have really helped my (i-Pad induced) arthritis in my neck"

Bob, participant in West Ealing



"The exercises make you aware of how we should get up and sit"

Marjbeen, participant in Southall



"I think you'll agree that it was a very successful programme, the ladies joined in and enjoyed the exercises"

Janine, Group Leader in West Ealing

"I feel better walking outside. It has helped a bit with the arthritis in my knees"

Bernadette, participant in Northolt



"I find that I am able to walk up the stairs easier"

Surinder, participant in Southall



"I use a frame, the distance from my flat to this hall and to the shops can be a struggle but I need to keep going as long as I can"

Swarn, participant in Southall

"It's a good programme, very beneficial for people like us"

Didar, participant in Southall