



Improving physical activity among older people in the community

A UK randomised controlled trial found that a group exercise programme had a lasting beneficial effect on physical activity levels in people aged 65 years or older living in the community, whereas a home exercise programme had no effect.

Overview:

- A group exercise programme produced a lasting increase in physical activity compared with no exercise programme among people aged 65 years or older living in the community and recruited from UK general practices.
- A home exercise programme had no effect on physical activity in these people.
- Healthcare professionals should consider offering individualised group exercise programmes to older people.

Background: In England, less than half of women (42%) and half (51%) of men aged 65–74 years do the recommended amount of physical activity ([Health and Social Care Information Centre 2013](#)).

A number of interventions designed to increase physical activity in older people, such as information sheets sent by post or face-to-face counselling sessions, have been shown to be effective among older adults who live in the community ([Chase 2015](#)). The effectiveness of individual versus group interventions is less clear ([Ashworth et al. 2005](#)).



Current advice: The NICE guideline on [physical activity: brief advice for adults in primary care](#) recommends that adults who have been assessed as being inactive should be advised to do more physical activity, with the aim of achieving the levels recommended in UK physical activity guidelines.

The [UK physical activity guidelines](#) recommend that adults aged 65 years or older should aim to complete at least 150 minutes of moderate intensity activity a week. This should be done in bouts of 10 minutes or more; for example, 30 minutes of exercise on at least 5 days a week.

The NICE pathway on [physical activity](#) brings together all related NICE guidance and associated products on the area in a set of interactive topic-based diagrams. NICE also has guidance on [mental wellbeing in over 65s: occupational therapy and physical activity interventions](#).

New evidence: A 3-arm cluster randomised controlled trial by [Iliffe et al. \(2015\)](#) compared 2 exercise programmes with no specified programme in older people who lived in the community.

People aged 65 years or older who were living in the community were identified from 43 general practices in London, Nottingham and Derby. A total of 20,507 people were sent an invitation to participate, of whom 1255 (6%) were recruited.

General practices were randomly assigned to 1 of 3 interventions, which patients in these practices completed for 6 months:

- A home exercise programme (the Otago Exercise Programme), which comprised exercises at home 3 times a week and support from volunteer peer mentors.
- A group exercise programme (Falls Management Exercise – FaME), which comprised group exercise classes once a week run by trained postural stability instructors and exercises at home twice a week.
- No specified exercise programme.

The primary outcome was the proportion of participants who reported reaching 150 minutes or more of moderate-to-vigorous physical activity a week at 12 months after the intervention period.

A total of 761 (61%) participants remained in the trial at 12 months after the end of the intervention period, and 572 (46%) had sufficient data for analysis.

In the group exercise arm, the proportion of participants who reached or exceeded the target level of physical activity rose from 40% at baseline to 49% at 12 months. This difference was equivalent to around 15 minutes' extra moderate-to-vigorous physical activity a day. The proportion who reached the physical activity target increased from 41% to 43% in the home exercise arm and from 37.5% to 38% in the no exercise programme arm.

People in the group exercise arm were significantly more likely than those in the no exercise programme arm to reach the target level of physical activity (odds ratio [OR]=1.78, 95% confidence interval [CI] 1.11 to 2.87, p=0.02). There was no significant difference between the home exercise arm and the no exercise programme arm in the proportion reaching the target level of physical activity (OR=1.17, 95% CI 0.72 to 1.92, p=0.52).

Strengths of this study include its size, that it was based in the UK, and that it used a number of validated scales for participants to self-report physical activity levels. However, the study had a low response rate and a high number of drop outs, and it was not possible to blind participants and people delivering the programmes to treatment allocation.

Commentary by Rob Morris, Pathway lead Clinician for Older People, Nottingham University Hospitals NHS Trust:

“Sedentary behaviour is common and becomes more prevalent with aging. Around 40% of adults over 50 in England are insufficiently active to benefit their health ([Health Survey for England 2012](#)). Yet the advantages of increased physical activity extend across a range of health domains, reducing the prevalence of disability and improving functional capacity and quality of life. The key challenge in realising these desirable benefits is changing societal attitudes toward exercise in a sustainable way.

“Perhaps the most significant finding in this new study by Iliffe et al. (2015) is that the benefits of the exercise programmes in terms of moderate-to-vigorous physical activity appeared to be sustained beyond the initial intervention period.

“This study also adds to the debate regarding the differential effects of group- and home-based

exercise. People who participated in group-based exercise were more likely to be physically active than those who did home-based exercise. Both approaches should be accessible for heterogeneous populations, but there are wider benefits associated with group-based schemes, such as greater participation and the reduction of social isolation. Although there is an inevitable cost in the provision of group-based programmes, there are also more elusive benefits in terms of opportunity costs, such as the demonstrated and sustained reduction in falls.

“The group exercise programme (FaME) and the home exercise programme (Otago Exercise Programme) used in this research were both devised to reduce fall risk among older adults. Both programmes have been proven to be effective at reducing the incidence of falls ([Skelton et al. 2005](#), [Thomas et al. 2010](#)). Falls are a symptom or herald of emerging frailty in older people, and many of the risk factors for falls relate to parameters modifiable through increased physical activity. Strength and balance training through systematic physical exercise is the most effective intervention in reducing falls amongst older adults ([Gillespie et al. 2012](#)).

“This study, as with other similar studies, had a low rate of uptake. Only 1 in 16 people invited responded positively, and further attrition halved the number available for final analysis.

“Whether exercise programmes are offered in an individualised way can influence uptake, in the same way that personalised ‘brief interventions’ have improved uptake of other lifestyle interventions such as reducing tobacco consumption. Trusted healthcare professionals and family doctors in particular can play a pivotal role in this respect.”

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