

## **The Origins**

Prof. John Campbell and dr. Clare robertson, based in New Zealand at the University of Otago, are the authors of the OEP. They devised a programme of strength and balance exercises to help prevent falls among older people. The efficacy of the programme was tested in a series of four randomised controlled trials from 1997 to 2005 (1,2,3,4) and a recent trial involved a group exercise programme by the University of sydney (5).

## **Strong Evidence Base**

These trials involved over 1,000 older participants who performed the strength and balance exercises three times a week for a year in their own homes (or 6 months in a group) with guidance on exercise technique from a trained professional (physiotherapist; nurse trained by a physiotherapist; exercise instructor). The studies showed an overall decrease in falls by about 35%. although a limited number of other research studies have shown a higher percentage decrease in falls following strength and balance exercise, these have not involved such high numbers of participants nor have the exercises been “put to the test” in such a high number of trials, therefore the OEP is considered to be the jewel in the crown of falls exercise research.

it was this that led to Later Life Training to contact the authors and

collaborate with them to provide training courses for health and exercise professionals resulting in The Otago Exercise Programme Leader’s Course.

## **Falls and Frailty**

falls and consequent injuries are a huge problem in the older UK population (6). There are currently over 11 million people aged 65 and over and nearly 30,000 aged over 90 years. Over a third of over 65 year olds fall every year and a staggering half of all over 85 year olds (7). Three quarters of people living in residential care fall repeatedly every year (8). There are huge associated costs to both the individual and the health service. for example, 10% of all ambulance service call outs are for people aged 65 and over who have fallen but nearly half of these are not taken to hospital. These older people are not injured but simply lack the ability to get themselves up from the floor (7). Commonly this is due to poor strength and flexibility, particularly in their legs. These components of fitness, along with balance, are targeted in the OEP. The OEP can potentially reduce

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the number of ambulance call outs and the associated financial cost but also improve the quality of the older person's life via reducing fear of falling and improving their confidence and ability to perform daily tasks. This may, in turn, broaden their social activities and reduce isolation and loneliness. recent work suggests group OEP exercise also improved cognitive function and quality of life among older participants (5).

## Standardised delivery

although the OEP is available to download from the internet, LLT wanted to achieve higher standards of delivery of these exercises in terms of exercise technique, and therefore safety and effectiveness of the programme across national falls and exercise services via effective training of health and exercise professionals. The partnership between LLT and the OEP authors was therefore developed, with LLT designing



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the training package and writing and producing the training course materials. Much expertise was gleaned from the OEP authors not only with regard to the implementation of the intervention itself but more pertinently in terms of training OEP leaders, as they had originally trained nurses for the 2001 studies.

## OEP Training in the UK

The first Otago Exercise Programme Leader's Course pilot was taught in the UK in 2006. Since then Later Life Training (LLT) has successfully trained over 4000 instructors in the UK and achieved exemplary reach to older people with a history of falls through their evidence based, nationally standardised and accredited training. **During this time** the course content continues to be updated as a result of evidence and guidance.

Professionals accessing the training include physiotherapist and rehabilitation assistants, occupational therapy assistants and technical instructors, specialist nurses, exercise instructors, sports coaches, social care workers, and sheltered housing wardens. however this list

is not exhaustive and we welcome applications from others. Carers and peer mentors who are keen to help maintain independence and social inclusion would be ideal OEP leaders. ideally all OEP trained leaders would have access to advice /supervision by a physiotherapist but some models in the UK have linked into occupational therapists and postural stability instructors (NvQ Level 4 specialist exercise instructors) for advice on progression, tailoring exercises or other issues that the OEP leaders may have with their clients.

## **OEP Training in Across Europe – ProFouND**

The Prevention of Falls Network for Dissemination (ProFouND) is an EC funded initiative dedicated to the dissemination and implementation of best practice in falls prevention across Europe. ProFouND aims to influence policy and to increase awareness of falls and innovative prevention programmes, amongst health and social care authorities, the commercial sector, NGOs and the general public. Through this work ProFouND aims to facilitate communities of interest and disseminate the work of the network to target groups across the EU.

Later Life Training are leading on a work package of ProFouND to deliver tutor training to health and leisure professionals across Europe and linking with [REPS Europe](#) and other organisations (such as physiotherapy councils) to ensure that the training courses delivered by these tutors in their own regions is accredited and quality assured. The aim, once initial tutor training is complete, is to have a network of at least 60 CTs across 15 regions cascade training at least 2 new instructor courses a year (to 10-15 new instructors) each year – so that the network of trained instructors grows each year across Europe. Depending on how many older people each instructor works with over a year, based on the UK experience, this will have the potential reach of 43,000 to 140,000 older people a year receiving effective falls prevention exercises.

### **who can Benefit?**

The OEP provides a natural intermediary exercise opportunity for older people who are functionally more able than those who attend chair- based exercise sessions but who are probably too frail and/or unsteady to participate in a general older person's exercise session (fit 50s and 50 Plus type sessions usually provided by leisure services and independent exercises instructors). Most importantly, the OEP includes balance exercises in combination with strength exercises that target the leg muscles. This combination is known to have the best effect on an older person's balance, and therefore falls risk, so this programme is highly suitable for older people who are already falling or are fearful of falling. fear is present in more than 50% of fallers and, interestingly, up to 40% non-fallers (7). it is a risk factor for falls in its own right. The OEP is also very flexible in where the older person can perform their exercises. The original OEP was performed in the person's home on days and at a time that was convenient for the individual but the OEP is now also offered as group exercise sessions for those who prefer the social and motivational aspects of exercising with others.

### **Equipment**

The only equipment required is a set of ankle cuff weights for each participant. it is

usually recommended that they start with 1kg weights and build up

over time. some ankle weights can be adjusted in weight (from 1-3 kg) by the addition or removal of tiny sandbags.

**Consistency of provision** falls and exercise were put firmly at the top of the public health agenda in 2001 with the advent of the National service framework for Older People

## Recent work suggest group OEP also improved cognitive function and quality of life among older participants

(9). This has resulted in a growth in falls services similar to the earlier growth in cardiac rehabilitation services. The UK leads the rest of Europe in terms of falls prevention services (10). however, in the British geriatric society survey of falls services 2004 (11),

- 51% of exercise programmes had a strength and balance component,
- 8% had strength Or balance alone
- and shockingly, 41% had neither.

Where is the evidence base behind these services? With such a strong evidence base, the OEP is undoubtedly a gold standard intervention that,

along with the OEP training course, will ensure consistency and excellence in

provision across the UK. The successful components of the OEP that have been identified and underpin the evidence base are:

- The provision of a sheet of exercises
- The continuous progression of challenge of the exercises

The regular home visits and telephone support.

### A Final word

We cannot prevent all falls, but we can prevent the loss of quality of life by following the evidence base.

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