

OEP and FaME/PSI Falls Prevention Exercise Programmes: A Statement on Consistent and Accurate Messaging for Commissioners and Stakeholders in frailty and falls prevention services

Prof Dawn Skelton, Bob Laventure, Bex Townley, David Riddell and Dr Susie Dinan-Young (Directors of LLT).

Why this statement?

This statement sets out to remind, reinforce, and provide further clarity for commissioners and stakeholders of frailty and falls prevention services about the evidence based Otago Exercise Programme (OEP) and the Falls Management Exercise/Postural Stability Instructor (FaME/PSI) programmes. Importantly, this statement also highlights what we *don't know* and should therefore not make assumptions about. In this statement we aim to provide a series of key messages to support consistent, correct information about falls prevention exercise programmes.



LLT whole-heartedly and absolutely support any opportunity that strives to enrich lives and improve the physical, psychological and emotional wellbeing of older people and stroke survivors of all ages. Any movement will support improved physical function on some level. Group exercise/movement disciplines of any description can provide social and physical benefits. However, they do not necessarily support falls prevention outcomes.

Message 1: Evidence informs us that just doing 'something' is not enough to reduce falls.

Many exercise programmes and activities claim to reduce falls, yet few have published research evidence to show they actually *do* reduce falls. Whilst inactivity is strongly associated with falls and frailty, there is plenty of evidence that just increasing activity when someone is already falling does not reduce further risk. In fact some activities, such as brisk walking in 'at risk' older people, can actually lead to *increased risk of falls*.



Message 2: Chair based exercise in any form is not evidenced to reduce falls

Reducing sedentary behaviour and encouraging more time in standing is an important start point for improving health outcomes, but it is just a start point. The aim is to strive for the next steps to empower and support people towards more structured and effective activities, taking into account their preferences and goals. Chair based exercise can be a move towards this. However, not all chair based activities are the same and may not necessarily

be designed to specifically target and progress mobility/movement and strength of the key muscle groups that are essential for activities of daily living. In an ideal evidence based falls prevention exercise continuum, chair based exercise aims to prepare and progress people to standing balance challenging exercise.



Message 3: 'Enjoyable' physical activities/exercise sessions do not necessarily translate to effective falls prevention outcomes

Enjoyment of an activity will of course support adherence, however, it is the content and the level of specificity of the content that informs outcomes. To achieve this specific outcome, requires a specific intervention. Specific programme design requires a level of skill and decision making on the part of the instructor and the referrer. As an organisation, LLT are motivated and pro-active in supporting services and health/leisure professionals in reducing falls and injuries as a result of falls.

Message 4: Both OEP and FaME/PSI programmes were designed and implemented as structured exercise formats in the published research

These structured exercise programmes were informed by exercise science and principles of fitness. Each has fairly prescriptive progression of strength (with body weight and equipment) and of balance challenge progression over time. Many service evaluations show the benefits when these services are implemented locally (<http://www.laterlifetraining.co.uk/service-evaluations-published-abstracts-and-other-testimonials-to-the-delivery-of-llt-course-exercises-in-practice/>) and have been published (eg. <http://www.tandfonline.com/doi/abs/10.1080/09593985.2017.1328721?journalCode=iptp20>).



Message 5: Progression and programme duration are essential elements of an effective OEP/PSI programme along with the need for assessment of suitable participants and individual exercise tailoring approaches

Trained OEP leaders/PSI instructors have the ability to tailor these components to an individual's functional capacity and can accommodate people of quite different functional levels within one session.

Message 6: Not every older person is the same. Exercise is not a one size fits all falls prevention approach

Evidence tells us that the programme needs to be individually tailored to meet the needs of each participant (taking into account function, pathology, comorbidities). Every successful evidence based exercise intervention to reduce falls has motivational strategies embedded to support adherence. Group coherence, encouraging self efficacy and peer support, as with all things, there is always much that we have yet to learn, research will continue to be our guide and as exercise professionals this is a critical message.



Message 7: OEP is not suitable for all older people. It requires participants to have poor strength and balance (informed by functional assessment) in order to be potentially effective in its primary outcome – to reduce falls

Effectiveness of programmes is likely to be compromised if this is not the case. For example, in the ProAct65+ study, higher functioning older adults did not reduce falls with the OEP programme. FaME, delivered by PSIs is effective at reducing falls both in high risk fallers (>3 falls in previous year and frailer) and higher functioning older adults.



Message 8: Not all strength and balance training may be effective in reducing falls



The LLT delivered OEP and PSI qualifications teach instructors all the components of the interventions that need to be adhered to. Once candidates qualify in OEP or FaME/PSI with LLT, we have no influence or input to the effectiveness of their OEP/PSI delivery or service implementation. We certainly spend much time speaking with service leads and commissioners prior to and after training and are pro-active in responding to queries around effective implementation. We recommend that services implement a measure of quality assurance to regularly review

the content, duration and progressive nature of their programmes inline with current evidence (50 hours, 2-3 times per week, tailored to suit progressive challenge). We also advocate that OEP Leaders and PSI's are supported in ensuring adequate assessment time with individuals and robust referral pathways/partnership working with physiotherapy/frailty/falls teams. The percentage reduction in falls seen in published research may not translate to the same reduction in falls in a service or programme that does not maintain fidelity (dose, duration, progression, exercise components, experience/qualifications of person delivering the intervention) to the original published intervention delivery. For example, falls were reduced by 54% (injurious falls by 40%) in the original FaME 9 month intervention with frequent fallers, but FaME delivered over 6 months with lower risk older adults showed a reduction in falls of 26% (45% in injurious falls). However, OEP when delivered over one year of home exercise with 6 support and progression visits and calls reduced falls by 46% in older people with deficits of strength and balance, when delivered over 6 months with less support visits and lower risk older adults, did not reduce falls significantly.

To date there is no published evidence for the effectiveness of OEP or FaME/PSI approaches when embedded in any other delivery approach than structured exercise. There is, as yet, for example, no evidence that the principles of Otago/FaME if embedded into the discipline of dance will reduce falls.



Message 9: The FaME (PSI) programme offers a broader range of exercises and adaptations for ability/function and has the potential for greater progression and for a wider range of function

PSI's are trained to teach and progress people at multiple functional levels within one class. Additionally, the ProAct65+ study showed that people that undertook FaME for 6 months were still achieving more than 15 minutes a day additional moderate physical activity (MVPA) than prior to starting the intervention. This likely imparts further health benefits on top of falls prevention.

Message 10: All Exercise Professionals have a responsibility to work within their parameters of practice, skills sets and align their work with best practice and evidence

There is a framework for exercise referral in place in the UK for referral of patients with specific conditions, or considered high risk of an adverse event during exercise. Qualifications and competence will ultimately impact on insurance held.

