

Appendix 11

The Role of the OT in the multi factorial assessment for falls and fractures

Occupational therapy can aid in preventing falls in older people by looking at home safety and modification enabling the older person to live more safely both in the home and external environment (Robert et al, 1999). Falls related injuries are predictable and they can be prevented. Falls are multifactor events with a wide range of risk factors. The risks can be loosely classified as intrinsic, extrinsic and environmental. As the nature of a fall is of a result of many factors, the assessment and treatment must also address these ranges of factors. Falls risk assessment and management programmes consisting of exercise, home hazard management, environmental modifications, and education has been found to be the most effective combination in the reduction of falls (Chang, 2004).

Occupational therapists, working in partnership with an individual who has fallen or is at risk of falling, will provide assessment and intervention for their falls/fracture risks and functional ability, using appropriate models of Occupational Therapy practice. This should contribute to a multifactorial, Multidisciplinary falls risk assessment (COT, 2006; NICE, 2004). The OT will address the following;

- **Home hazard assessment and intervention:**
This involves teaching awareness of hazards and how to avoid them and improving the safety of the older person's environment by removing, replacing or modifying any hazards (NICE, 2004). The evidence supports home hazard management and assessment of the environment in preventing falls among older persons at risk (HSE, NCAOP and DOH, 2008).
- **Cognitive impairment:**
Research has shown a relationship between attention and postural control. A simple test referred to as 'stops walking when talking' was found to have a high positive predictive value in identifying elderly people who were at risk of falling. Elderly subjects who were unable to complete the dual task of walking and talking simultaneously, i.e. those who stopped walking when they had to answer a question thus displaying some element of impaired divided attention, had a higher proportion of falls than those who could perform the two tasks simultaneously.
- **Visual abnormalities and perceptual deficits:**
Spatial disorientation is considered to be a risk factor related to falls. Environment issues related to visual perception and attention i.e. colours and patterns, interior furnishings, negotiation of space, background noise, object recognition.
- **The older persons perceived function and fear of falling:**
Research has found several behavioural factors associated with falls in the elderly. Collision in the dark, failure to avoid hazards, excessive environmental demands, habitual environmental use, and environment characteristics were patterns of behaviour associated with falling (HSE, NCAOP and DOH, 2008)

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The OT will carry out appropriate standardised and/ or non-standardised assessments in conjunction with their own observations of the individual and clinical judgement for falls intervention. There are a wide range of OT measurement tools available and can be divided into the following categories;

Home hazard assessment:

Eg: Safer Home V3, Westmead home safety assessment, and home fast.

Cognitive and perception assessments:

Eg: Mini mental state examination (MMMSE), Test of everyday attention, stop talking when walking test, Lowenstein Occupational Therapy Cognitive Assessment (LOTCA), Rivermead Behavioural Memory Test (RBMT), and the Rivermead Perceptual Assessment battery (RPAB).

Falls behaviour and fear of falling scales:

Eg: the Falls Behaviour scale (FAB), Falls Efficacy scale international (FES- I).

Modified activities:

Eg: Frenchay activities index, activities specific balance confidence (ABC) scale, Barthel Index (refer to algorithm attached) (Crowe, 2012).

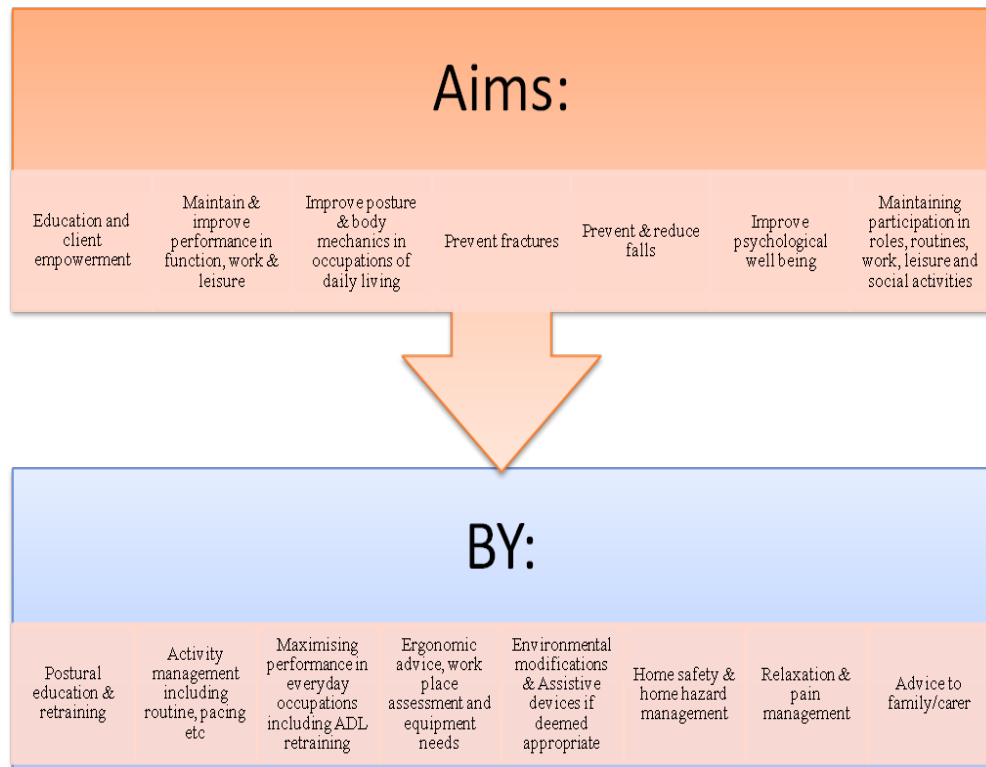
OT and Osteoporosis:

There is limited evidence in the literature for the effectiveness of OT in the management of osteoporosis only (Randles et al 2003; Cook 2002). The majority of the literature refers to the role of OT in falls and in the older person. However prevention and treatment of osteoporosis involves more than simply taking medication. A multidisciplinary approach including OT focusing on weight-bearing exercises, adequate intake of calcium and vitamin D are essential to bone health; posture, flexibility and balance support proper body mechanics; and a safe home environment are vital to avoiding falls and fractures (Dziedzic and Hammond 2010).

According to Randles et al (2003) Occupational therapists play a key role in promoting healthy lifestyles by engagement in meaningful occupations. Adults with Osteoporosis may experience difficulty in performing their daily occupations. The OT can focus on postural retraining, body mechanics, activity management, relaxation, provision of assistive devices to maximize safety and will educate you on fall prevention, home safety and bone-healthy nutrition (refer to chart)(Dziedzic and Hammond, 2010; Randles, 2003).

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Occupational Therapy management & Osteoporosis



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