

with a particular focus on integrating service and how safe and effective exercise formats can be achieved for frailer older people at risk of falls.

Exercise formats for strength and balance programmes in the falls prevention exercise continuum: The Carmarthenshire model: An integrated approach to delivering evidence based exercise programmes

Townley, Bex

Carmarthenshire County Council, UK.

Maintaining and extending rehabilitation gains made within physiotherapy exercise sessions is a key aim of exercise professionals working in leisure/community settings. Physiotherapy exercise interventions within hospital settings work either on a one to one basis or small group numbers and operate at fixed term programme durations enabling ease of baseline, mid-point and end point assessment. They also focus on outcomes for the primary clinical pathology (i.e. cardiac rehab, pulmonary rehab, stroke rehab, and falls). This presentation focuses on the challenges faced by specialist exercise-referral services receiving referrals from multiple exercise pathways/ physiotherapy teams for patients presenting with multiply pathologies. The session will provide an overview of Carmarthenshire's integrated approach to evidence based exercise programmes within a falls-prevention exercise continuum service and its strong links with primary and secondary prevention teams. It will provide practical examples of how safe and effective exercise formats can be achieved for frailer older people at risk of falls.

Gait, mobility and falls

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Increasing life expectancy challenges us to age successfully in order to remain safe and independently mobile. A life free from risk of falls and their negative consequences includes retaining the ability to mobilise independently at home and in the community. This requires a higher level of motor control as well as cognitive flexibility to address necessary motor skills whilst attending to a range of environmental stimuli and concurrent tasks. Gait is a complex motor function requiring input from multiple motor and non-motor domains in the central nervous system. In particular, recognition of the important role of non-motor characteristics such as cognitive and executive function to gait in older adults has influenced our understanding of complex gait performance. Important insights into the role of cognition have also been gained using dual-task paradigms which address automatic control of gait. Selected characteristics of gait are predictive of falls risk, mobility impairment and cognitive decline whilst cognitive decline in older adults predicts falls and loss of mobility. Impaired dual-task performance highlights potential difficulties faced in more challenging environments or during multiple task performance with subsequent increased risk of postural instability and falls. This presentation prioritises the requirements for successful mobility rather than falls prevention presuming that these skills will be protective against falls risk. The presentation will address: control of gait, including ambulation in complex environments such as the community; features of gait that are predictive of functional decline and reduced mobility; and strategies to address these.