Editorial

Opportunities for cross-disciplinary care partnerships in physiotherapy

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Physiotherapists have traditionally practised within a stream-based paradigm, with assessment and care frequently aligned to core streams such as musculoskeletal, neurological, cardiorespiratory, and gerontological physiotherapy. However, opportunities to improve within-physiotherapy collaboration exist in many healthcare sectors. This would facilitate the provision of holistic healthcare that focuses on the whole person rather than the specific health condition. One contemporary example is the potential to develop cross-disciplinary care partnerships in the area of falls prevention and osteoarthritis (OA) management.

Physiotherapists have excelled in the discrete fields of falls prevention and OA management, as leaders in the design and implementation of new intervention programs, in service delivery roles, and in the development of clinical practice guidelines and care standards.1-4 However, their roles in falls prevention and OA management have largely operated in parallel rather than in collaboration, despite much overlap in patient groups, risk factors and management strategies. There is opportunity to share learnings, resources and skills across the falls prevention and OA specialties. From a clinical perspective, this is particularly important because OA is prevalent among older people who fall, and the physical impairments associated with OA are also pertinent risk factors for falls. In practice, assessment of risk factors for falls and related patient education are not a routine part of OA management. We consider that physiotherapists have a key role to play in this space, with regard to integrating falls risk assessment procedures, initiating cross-referral pathways (eg, to effective falls prevention services) and expanding education for older people with OA to include falls risk awareness. Likewise, poorly managed pain associated with OA may inhibit an older person from participating in falls prevention exercise programs.5 It is therefore beneficial for physiotherapists working in falls prevention to be aware of current pain management recommendations for people with OA.6-9

Falls and OA both commonly affect older people. Falls are a leading cause of injury and hospitalisation among older age groups.10,11 and can result in a cascade of functional decline, culminating in the need for residential care. According to 2016 data from the landmark Global Burden of Disease Study, falls accounted for 4.4 million years lived with disability globally (representing 4.2% of total years lived with disability) and 3.6 million years of life lost worldwide (representing 1.3% of total years of life lost) among people aged ≥ 70 years.12 Figure 1 shows that the highest burden of falls is borne by older age groups. OA is the most common form of arthritis, with the hip and knee joints most frequently involved.13 OA predominantly affects older people, meaning the number of people with OA will undoubtedly grow as populations age. Using Australia as an example, people aged ≥ 65 years are projected to represent 58% of the OA population by the year 2030, up from 52% in 2015.14

There is considerable overlap between falls risk factors in older populations and the physical impairments commonly associated with OA,15 as summarised in Figure 2. Research is increasingly showing that people with OA are at higher risk of falls and fall-related injuries.16-18 Analysis of data from the United States-based Osteoarthritis Initiative found that people with hip or knee OA were > 50% more likely to experience a fall, and > 80% more likely to have a fracture in the first year following their diagnosis, compared to people without OA.18 Data from the Osteoarthritis Initiative also reveal a link between falls, knee OA, and impaired quality of life.19 The physical consequences of falls (including but not limited to fractures, head injuries and wounds) are likely to impose a significant personal burden for the individual and their family.20 Falls may also lead to ongoing reduced confidence and decreased physical activity in relation to fear of falling,21 which in turn may exacerbate the symptoms of OA.

In addition to the physical and psychosocial impacts, the financial consequences should also be considered. The economic burden of falls among older people with OA is substantial, and set to escalate. This is evident in the relatively high prevalence of falls,22 the increasing number of older adults with OA at the population level,14 and health system costs for falls-related injuries. For example, Canadian data have put the average cost of a fall at over CAD 11,000 per emergency department presentation and over CAD 29,000 per hospital admission for people aged > 70 years.23 In Australia, the direct health costs attributable to fall-related injuries are forecast to exceed AUD 1.3 billion annually by the year 2051, based on national population projections.24 There is Level 1 evidence from a meta-analysis of 88 randomised controlled trials involving over 19,000 participants that well-designed exercise programs incorporating balance activities can decrease falls risk in older people (mean age ≥ 65 years) by 39%.25 Falls education provided to patients in combination with staff training and provision of feedback has also been found to be effective at reducing in-hospital falls.26 However, it appears that assessment of falls risk does not routinely occur within OA clinical assessment, nor does falls prevention form a core component of usual clinical care for older people with OA. A range of international OA clinical guidelines (from the European League Against Rheumatism,27 Osteoarthritis Research Society International,28 American College of Rheumatology,29 and National Institute for Health and Care Excellence30) has been developed over the past decade to promote high-quality care for OA. These primarily focus on pain management, exercise, weight loss, and consideration of surgery, with little or no attention given to the screening and management of falls risk in people with OA. This highlights a potential failure in the translation of falls prevention evidence to clinicians frequently involved in the care of those at high risk of falls and, ultimately, to their patients.

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Greater attention could be given to falls prevention in OA care through shifts in professional attitudes and appropriate up-skilling. While high-level evidence exists to prevent falls in older people,25 an unacceptably high rate of falls remains among people with OA.17,18 There are clear opportunities for physiotherapists to effect change in clinical practice, undertake innovative research, and achieve downstream health impacts. Even a small reduction in falls prevalence has the potential to achieve significant health system savings at a population level. Physiotherapists are key clinicians across the OA care continuum, from community health and private practice through to hospital-based care, and are ideally positioned to integrate falls prevention strategies in order to deliver holistic, patient-centred care. A continued siloed approach to patient care (delivering falls prevention and OA care separately) is neither efficient nor sustainable as populations continue to age. A range of relevant resources21-28 is available to bring physiotherapists up to speed, spanning falls prevention guidelines, risk factor screening tools, and examples of evidence-based falls prevention programs. The Prevention of Falls Network for Dissemination (ProFouND), Australian Commission on Safety and Quality in Health Care, Centers for Disease Control and Prevention, and National Institute for Health and Care Excellence websites all offer comprehensive falls prevention resources, as do other international agencies and societies (such as the Australian and New Zealand Falls Prevention Society).

Given both the high prevalence of OA and high rates of falls among older people, there is great capacity for physiotherapists to develop new expertise in managing these conditions contemporaneously and, in doing so, establish pioneering models of care. Nesting evidence-based falls prevention within OA management is just one example of how enhanced physiotherapy collaboration

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**Figure 1.** The global burden of falls in 2016, by age group. Graph plotted using Global Burden of Disease Study data.22

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**Figure 2.** Overlap between falls risk factors and osteoarthritis impairments.

*Common osteoarthritis impairments that may also impact on falls risk.*
could minimise gaps in patient care. We encourage all physiotherapists to reflect on their own field of practice and consider opportunities for developing new cross-disciplinary partnerships that could optimise short-term and longer-term outcomes for their patients, and have broader health system impacts.

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**References**