

# Physiotherapists are pivotal in the care of people living with dementia

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In October 2022 the World Health Organisation (WHO) factsheet about the global ageing of the population, forecasted that by 2030, 16% of the global population will be aged 60 years or over [1].

In Europe, this forecast has already been exceeded, with 25% of the population aged 60 years or over. A proportion that is projected to reach 35% by 2050 and is expected to stabilise in the second half of this century [2]. In Europe the number of very old people (aged 85 years or more) is growing at a faster rate than any other age group. This group is projected to increase from 12.5 million in 2019 to 26.8 million by 2050. Additionally, the number of centenarians is expected to increase from 96,600 in 2019 to 484,000 by 2050 [2].

Ageing is the largest risk factor for dementia, so in an ageing population, there is inevitably an increase in people living with dementia. The current prevalence of dementia in the general population in Europe is approximately 1.7% and is expected to increase up to 3%. In numbers, this means that currently approximately 11 million people are living in Europe with dementia and this will increase to approximately 16 million by 2050. The numbers are even more startling if you look into the different age categories; of the current 11 million people with dementia, 82% are 75 years and older and 40% of the people older than 90 years have dementia [3].

In this light, it is no surprise that the WHO declared dementia a public health priority in 2012 [4]. The key messages of this declaration were;

- promoting a dementia-friendly society globally;
- making dementia a public health and social care priority worldwide;
- improving attitudes to, and understanding of, dementia;
- investing in health and social systems to improve care and services for people with dementia and their caregivers; and
- increasing the priority given to dementia in the research agenda.

But what has all of this to do with our practice as physiotherapists? Physiotherapists can and do play a crucial role in provision of rehabilitation for people living with dementia. Physiotherapists use their knowledge of movement and movement disorders to analyse movement problems experienced by people living with dementia. Physiotherapists can also

initiate effective treatment strategies to help people living with dementia achieve their physical performance goals. To achieve this, it is essential to increase knowledge of how to implement effective rehabilitation for people living with dementia. In 2022 Ries published a useful framework that can be used by rehabilitation professionals working with older people living with dementia [5]. At the core of this framework are four critical areas:

1. Relationship (establishing a personal connection),
2. Communication (using intentional verbal and non-verbal skills),
3. Motor learning (understanding and exploiting strengths), and
4. Environment (creating a safe and comfortable space).

This model addresses the need for targeted knowledge and specific skills to support physiotherapists working with individuals living with dementia. If an appreciation for these factors were among the core competencies for physiotherapists it could significantly reduce patients being written off as “uncooperative” or “unable to participate” in physiotherapy [5].

Movement is generated in the brain, so there is no surprise that a brain disorder such as Alzheimer’s or Lewy body dementia has an effect on movement. Movement disorders are often one of the first signs of brain pathology. Burrachio et al. studied people with mild cognitive impairment and were able to identify a decline in walking speed 12 years prior to the first cognitive signs [6]. Furthermore, other research showed that people who developed dementia demonstrated a decline in physical activity patterns up to 12 years prior to the diagnosis [7]. Ramakers et al. found that walking problems were 3.5 times more often reported for older adults subsequently diagnosed with dementia in the following five years, when compared to a matched group of healthy older peers [8]. And, when people are diagnosed with dementia walking usually declines further, followed by the onset of apraxia and paratonia [9].

Is there a case for using the skills of a physiotherapist to promote early diagnosis of dementia – do physiotherapists routinely consider the possibility of cognitive decline when assessing people who present with slow gait speed? This could be critical, as evidence suggests that physical activity and exercise can have a beneficial impact in early dementia

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[10]. Additionally, involving informal caregivers in exercise therapy has significantly reduced carer burden. It is crucial to explore various possibilities for well-being and comfort that cater to individual needs in a multidisciplinary approach, involving people living with dementia and their care partners [11].

Physiotherapists can have an impact beyond the early stages of dementia as people living with dementia at the middle and later stages of progression have rehabilitation needs as well. This has been formally recognised in the September 2023 Package of Interventions for Rehabilitation Module 3 'Neurological Disorders' released by the WHO [12], with the inclusion of dementia in Chapter 6.

Rehabilitation is essential for helping people living with dementia to achieve and maintain their preferred level of function and independence for as long as possible. By doing this, the physical health, cognition, activity, and overall well-being of people living with dementia can be optimised. Rehabilitation can be of great benefit to all individuals living with dementia, but the specific interventions to be delivered depend on the severity of the cognitive impairment and the person's personal preferences. Dementia rehabilitation interventions aim to improve cognitive, psychological, physical, and social aspects of functioning. Rehabilitation goals may include maintenance of independence and well-being and the ability to participate in meaningful life activities for as long as possible [12].

In the later stages of dementia, physiotherapy can be critical in management of paratonia, a movement disorder associated with cognitive impairment that is often not recognised or effectively managed. Paratonia is characterised by increased muscle tension in people living with dementia that has a detrimental effect on quality of life, especially in the final stages of the dementia, making care challenging [13]. In cases of severe oppositional paratonia, various physiotherapeutic interventions may be indicated to alleviate the condition. These interventions may include supportive materials, the concept of Passivity in Daily Life (PDL) in which the current status of disability is accepted, botulinum toxin injections, rocking movements (harmonic techniques), massage, warm water baths, heat applications, snoezelen (also called controlled multisensory environment (MSE)), and other relaxation techniques. When an intervention is applied, it should be tailored to meet specific goals and effectiveness methodically monitored using valid and reliable measures [14]. However, most of these interventions have limited evidence supporting their use in paratonia, so this is a critical area for more research [14].

It is disappointing that information about movement disorders in dementia, although frequently reported in scientific articles, is lacking in public health literature and professional policy papers. This lack of information for both the general public and health care professionals leads to misunderstandings and inefficient and ineffective treatments. The International Association of Physiotherapists working with Older People (IPTOP), a specialty group of World Physiotherapy, recognises this problem and is working to address the knowledge and skills of physiotherapists in this area. For example, a recent IPTOP webinar on 'Physical Activity for people with Dementia' was attended by physiotherapists from 44 countries. Additionally, several IPTOP officers worked along with world-leading experts on the WHO package of intervention for rehabilitation for neurological disorders. It is hoped this will promote the message to all health care professionals that people living with dementia benefit from rehabilitation, and should not be dismissed as having 'no rehabilitation potential'. The message IPTOP hopes to deliver in this editorial is that physiotherapists are pivotal in the care and rehabilitation

of people living with dementia at all stages of their dementia journey. It is an important area of growth for our profession and IPTOP aims to support physiotherapists across the globe to deliver evidence-informed and effective rehabilitation to people living with dementia.

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