

doi: 10.1111/1753-6405.12800

Sufficient exercise for Australians living with dementia in residential aged care facilities is lacking: an exploration of policy incoherence

Lindsey Brett,¹ Paul Stapley,² Shahla Meedya,² Victoria Traynor²

1. Centre for Health Systems and Safety Research, Australian Institute of Health Innovation, Macquarie University, New South Wales

2. Faculty of Science Medicine and Health, University of Wollongong, New South Wales

Along with cognitive decline, dementia is characterised by changes in emotional control, social behaviour and physical performance.¹ Individuals living with dementia often require assistance with their activities of daily living as dementia progresses.² Requirements for higher levels of care result in more individuals with dementia living in residential aged care facilities (RACFs); up to 52% of all individuals living in RACFs have a diagnosis of dementia.¹

Physiotherapists are key members of the multidisciplinary team that provide the necessary services to individuals living with dementia in RACFs. Physiotherapists can help individuals improve or maintain physical and functional ability, and assist with chronic pain management.^{3,4} They provide exercise, education, equipment and manual techniques.⁵ However, access to physiotherapists and other allied health professionals (AHPs) in RACFs is restricted by limited funding and availability of AHPs.

As the population ages, the demand on health care services will continue to rise. The ways in which health and social care services are funded and delivered to older individuals need to be addressed to meet future demands. In Australia, residential aged care funding comes from two main sources: government subsidies and contributions by the individuals living in RACFs.⁶ The Australian Government determines funding allocations to RACFs using the Aged Care Funding Instrument (ACFI).⁷

This paper contributes to the debate regarding the funding and provision of services for individuals living with dementia in RACFs from the perspective of a physiotherapist who is a researcher in gerontological studies and has nine years' experience of working clinically with older

individuals. It specifically considers the role of physiotherapists and the provision of exercise for individuals living with dementia in Australian RACFs, and how the ACFI influences this. Discrepancies are highlighted between best practice evidence, current clinical practice and funding.

Australian RACFs policies and funding

Australian RACFs are required to comply with the four Accreditation Standards within the Quality of Care Principles 2014; each standard has a principle outcome and several expected outcomes to ensure all individuals living in RACFs receive effective care (Figure 1).⁸ These standards support a reablement approach to care in RACFs.

The ACFI was launched in Australia in 2008 and is used to allocate funding based on assessment of the care needs of individuals living in RACFs.⁷ The focus of ACFI is on measuring the complexity of care and dependency of the individuals living within RACFs.⁷ The ACFI is divided into three domains of assessment: activities of daily living; behaviour; and complex health care.⁷ Funding in each of these domains is provided at four levels: high, medium, low or nil, which determine the subsidy paid for each individual living in an RACF.

Since 2013, aged care reforms have been progressively implemented, which have resulted in the focus of Australian aged care policies and funding changing towards being community-based and away from RACFs.⁹ A 'Dementia and Severe Behaviours' supplement ceased in 2014,¹⁰ which removed funding and resources for the specialist needs of individuals living with dementia in RACFs.

Physiotherapists' role in Australian RACFs

Physical function

Residential aged care facilities use physiotherapists to undertake mobility and functional assessments to meet Accreditation Standards (Figure 1 highlights the standards that pertain to physiotherapy),⁸ guide ACFI assessments within the activities of daily living and complex health care domains,⁷ and help design reablement or maintenance

Figure 1: Accreditation standards from the quality of care principles 2014.

1. Management systems, staffing and organisational development

Principle outcome: Within the philosophy and level of care offered in the residential care service, management systems are responsive to the needs of care recipients, their representatives, staff and stakeholders, and the changing environment in which the service operates.

Number of expected outcomes: 9

2. Health and personal care

Principle outcome: Care recipients' physical and mental health will be promoted and achieved at the optimum level in partnership between each care recipient (or his or her representative) and the health care team.

Number of expected outcomes: 17

Physiotherapy related outcomes:

2.1 Mobility, Dexterity and Rehabilitation: optimum levels of mobility and dexterity are achieved for all individuals

2.6 Other Health and Related Services: individuals need to be referred to appropriate health specialists in accordance with their needs and preferences

2.8 Pain Management: individuals are free as possible from pain

3. Care recipient lifestyle

Principle outcome: Care recipients retain their personal, civic, legal and consumer rights, and are assisted to achieve active control of their own lives within the residential care service and in the community.

Number of expected outcomes: 10

Physiotherapy related outcomes:

3.5 Independence: individuals are assisted to achieve maximum independence, maintain friendships and participate in the life of the community within and outside the residential aged care facility

4. Physical environment and safe systems

Principle outcome: Care recipients live in a safe and comfortable environment that ensures the quality of life and welfare of care recipients, staff and visitors.

Number of expected outcomes: 8

This is an open access article under the terms of the Creative Commons Attribution-NonCommercial-NoDerivs License, which permits use and distribution in any medium, provided the original work is properly cited, the use is non-commercial and no modifications or adaptations are made.

programs. In Australia, no specific funding or minimum requirement is allocated for physiotherapy or exercise to improve and maintain physical ability and function for individuals living in RACFs; therefore, the physiotherapy or exercise individuals receive varies greatly between RACFs.

Pain management

Physiotherapists play a crucial role in the multidisciplinary approach to pain management for older individuals living in RACFs and their involvement helps to meet the Accreditation Standards.⁸ Physiotherapists complete assessments and treatments related to the two chronic pain management items within the complex health care domain of ACFI. Item 4a is the provision of therapeutic massage and/or pain management involving technical equipment specifically designed for those activities (electrotherapy, acupuncture, dry needling and hot wax baths) by an AHP or registered nurse, for a total of 20 minutes of one-to-one staff time at least weekly.⁷ Item 4b is the provision of therapeutic massage and/or pain management involving technical equipment specifically designed for pain management (electrotherapy, acupuncture, dry needling and hot wax baths) by an AHP only, at least four days per week for a total of 80 minutes of one-to-one staff time.⁷ Allied health professionals authorised by ACFI guidelines to provide complex pain management treatments are physiotherapists, occupational therapists, podiatrists, chiropractors and osteopaths.

Physiotherapy and exercise for individuals living with dementia in RACFs

Best practice evidence

Evidence shows that physiotherapy and exercise can improve the physical performance of the general populations of older individuals,^{11,12} and have a positive impact on falls prevention for older individuals living with a cognitive impairment in the community.¹³ Similar evidence that demonstrates the benefits of physiotherapy and exercise for individuals living with dementia in RACFs is emerging; a systematic review found a number of studies demonstrated significant improvements in cognition, agitation, mood, mobility and functional ability.¹⁴ A randomised controlled trial (RCT) showed changes in the Timed Up and Go test, timed static pedalling, and number of falls in favour of a physiotherapist-led multimodal exercise intervention for

individuals living with dementia in RACFs.^{15,16} This RCT had a qualitative component that demonstrated its feasibility for longer-term sustainability, and a positive impact was reported from the perspective of staff and family carers.¹⁷ These findings are supported by other Australian studies demonstrating feasibility and significant improvements in behavioural and psychological symptoms of dementia (BPSD) and grip strength for individuals living with dementia in RACFs that participated in an aquatic exercise intervention.^{18,19}

Physiotherapists are one part of the multi-disciplinary team that has the skills and knowledge to prescribe appropriate exercises for individuals living with dementia in RACFs to assist with chronic pain management, taking into consideration other influences, such as age-related changes and comorbidities.⁴ They understand exercise monitoring, motivators and barriers to exercise, as well as principles that include individualisation and load progression.²⁰ The skills of physiotherapists enable them to contribute to chronic pain management for individuals living with dementia using a biopsychosocial model, which goes beyond simply administering therapeutic massage and technical equipment. Effective chronic pain management should be individually tailored, functional and primarily focused on non-pharmacological modalities such as exercise, education and modification of beliefs and responses to pain.^{3,21,22} Empirical evidence supports the use of exercise to manage pain in older individuals,²³ but the evidence on therapeutic massage, electrotherapy and heat therapy is less convincing.²³

Limitations in current practice

Most physiotherapists working in RACFs will agree that exercise for individuals living with dementia in RACFs is not prioritised and is a neglected area. Exercise has numerous physical and psychological benefits such as improved mobility, reduced pain and increased life satisfaction.²⁴ When promoting independence and/or reablement, exercise would naturally be an integral component of assessments and interventions. Instead, current policy results in RACF assessments to determine the level of funding and care requirements, which focus on dependency levels of individuals living in RACFs. Although it might be an unintentional outcome, RACFs become financially dependent on assessing the dependency of individuals in their care.²⁵ Funding for individuals living with dementia in RACFs is further limited by recent changes in

policies, with funding now being focused on community aged care. This has resulted in an increase in physical dependency of individuals living in RACFs,²⁶ which has not been met with increased funding or service provisions for physiotherapists and other AHPs.

Despite the convincing evidence about the benefits of exercise for chronic pain management among older individuals, no funding is provided in ACFI for the provision of exercise as part of a pain management plan. In fact, none of the ACFI domains include funding for exercise interventions.²⁷ This is despite common-sense knowledge that exercise promotes the health and wellbeing of all population groups. The rigid ACFI guidelines impede physiotherapists in using their clinical reasoning skills to provide interventions, such as using exercise as part of chronic pain management. Instead, ACFI guidelines prescribe the type and frequency of pain management treatment, unsupported by current evidence.⁴ A recent review of ACFI found it was no longer fit for purpose because it does not reflect a contemporary understanding of the aged care sector, or the characteristics of individuals living in RACFs.²⁸

Another limitation to physiotherapy for individuals living with dementia in RACFs is the presence of professional barriers that discourage physiotherapists from working in RACFs and lead to high attrition rates of physiotherapists leaving aged care positions: isolation; less access to professional development; less support; and little mentoring.⁴ The 2016 National Aged Care Workforce Census and Surveys indicated that the employment of AHPs in RACFs fell between 2012 and 2016, both in terms of raw numbers and as a proportion of the direct care workforce (from 2% to 1%).²⁹ The Australian Physiotherapy Association noted that some RACFs advertising the provision of a 'comprehensive physiotherapy service' to the individuals who live in their facility did not employ a sufficient number of physiotherapists to deliver on this promise.³⁰ The lack of physiotherapists and other AHPs in aged care can compromise the capacity of RACFs to deliver effective, evidence-based practice and meet the Accreditation Standards.

The gap that needs to be bridged

There are many benefits of exercise for individuals living with dementia in RACFs, such as improved physical performance, increased socialisation and reduced pain.^{14,31} The Accreditation Standards appear aligned with research findings, promoting independence and wellbeing

in Standards Two and Three (Figure 1).⁸ However, the implementation of evidence-based physiotherapy and exercise practices are not easily enabled through funding tools, such as ACFI.⁷ The recent review of ACFI recommended the use of branching classification and the incorporation of activity-based funding to improve aged care funding.²⁸ If ACFI and RACF providers funded and incorporated exercise and physiotherapy into standard care, the health and wellbeing of individuals living with dementia in RACFs is likely to be better promoted.

Changing ACFI on its own will not ensure that individuals living with dementia in RACFs will have better access to physiotherapy services and exercise. The profession could contribute to improved access to physiotherapists in RACFs through initiatives, such as the provision of professional development opportunities to encourage physiotherapists to work in the aged care sector.⁴ It is also important that undergraduate physiotherapy curriculums include sufficient focus on exercise for older people with dementia, including those living in RACFs, to help student physiotherapists develop the knowledge and skills to work with this population. Physiotherapists working in RACFs need the same autonomy in their professional practice as their peers in other care settings: to complete assessments and devise appropriate treatment plans based on their own knowledge and clinical reasoning, rather than being constrained by funding tools, such as ACFI.⁴ Other AHPs, such as accredited exercise physiologists and occupational therapists, need to undertake a similar review to this one and collate the evidence about the benefits of their role and activities on the health and wellbeing of older individuals – specifically, individuals living with dementia in RACFs – to better promote their role in aged care funding.

Conclusion

Evidence supports the use of exercise to maintain function and independence and reduce pain for individuals living with dementia in RACFs. The Accreditation Standards for Australian RACFs also promote independence and exercise. In contrast, ACFI appears focused on assessing dependency levels, rather than assessing care needs that would prevent, maintain or promote the capacity and function of individuals living with dementia in RACFs. There is a need for more to be done to enable RACFs to adopt a reablement model of care

that would, inevitably, include a focus on promoting exercise and physiotherapy among individuals living with dementia. To facilitate changes, issues with policies and practices such as ACFI need to be addressed, or perhaps a new evidence-based funding tool needs to be developed. Physiotherapists look forward to the outcomes of the recent ACFI review and hope that it provides funding incentives to deliver a reablement model of care using evidence-based physiotherapy and exercise to promote the health and wellbeing of older individuals, including individuals living with dementia in RACFs.

References

1. World Health Organization. *Dementia* [Internet]. Fact Sheet No.: 36. Geneva (CHE): WHO; 2016 [cited 2016 Nov 20]. Available from: www.who.int/mediacentre/factsheets/fs362/en/
2. Telenius EW, Engedal K, Bergland A. Effect of a high-intensity exercise program on physical function and mental health in nursing home residents with dementia: An assessor blinded randomized controlled trial. *PLoS ONE*. 2015;10(5):1-18.
3. Australian Physiotherapy Association. *Position Statement: Pain Management*. Melbourne (AUST): APA; 2012.
4. Australian Physiotherapy Association. *Position Statement: Supporting Older Australians*. Melbourne (AUST): APA; 2012.
5. National Health Services. *Physiotherapy Techniques* [Internet]. London (UK): Government of United Kingdom; 2016 [cited 2018 Feb 12]. Available from: <https://www.nhs.uk/Pages/about-us.aspx>
6. Prince M, Prina M, Guerchet M, Alzheimer's Disease International. *World Alzheimer Report 2013 Journey of Care: An Analysis of Long-term Care for Dementia*. London (UK): Alzheimer's Disease International; 2013.
7. Ageing and Aged Care. *Aged Care Funding Instrument (ACFI) User Guide 2017*. Canberra (AUST): Australian Department of Health; 2016.
8. The Federal Register of Legislation. *Legislative Instrument Quality of Care Principles 2014*. Canberra (AUST): Australian Office of Parliamentary Counsel; 2014.
9. Ageing and Aged Care. *Why is Aged Care Changing* [Internet]. Canberra (AUST): Australian Department of Health; 2016 [cited 2017 Aug 11]. Available from: <https://agedcare.health.gov.au/ageing-and-aged-care-aged-care-reform/why-is-aged-care-changing>
10. Ageing and Aged Care. *Cessation of the Dementia and Sever Behaviours Supplement* [Internet]. Canberra (AUST): Australian Department of Health; 2014 [cited 2017 Aug 11]. Available from: <https://agedcare.health.gov.au/overview/advice-to-the-aged-care-industry/aged-care-entry-record/cessation-of-the-dementia-and-sever-behaviours-supplement>
11. Giné-Garriga M, Roqué-Figuls M, Coll-Planas L, Sitjà-Rabert M, Salvà A. Physical exercise interventions for improving performance-based measures of physical function in community-dwelling, frail older adults: A systematic review and meta-analysis. *Arch Phys Med Rehabil*. 2014;95(4):753-69.e3.
12. Reiner M, Niermann C, Jekauc D, Woll A. Long-term health benefits of physical activity – a systematic review of longitudinal studies. *BMC Public Health*. 2013;13(1):813.
13. Chan WC, Fai Yeung JW, Man Wong CS, Wa Lam LC, Chung KF, Hay Luk JK, et al. Efficacy of physical exercise in preventing falls in older adults with cognitive impairment: A systematic review and meta-analysis. *J Am Med Dir Assoc*. 2015;16(2):149-54.
14. Brett L, Traynor V, Stapley P. Effects of physical exercise on health and well-being of individuals living with a dementia in nursing homes: A systematic review. *J Am Med Dir Assoc*. 2016;17:104-16.

15. Brett L, Stapley P, Meedya S, Traynor V. *Effect of Physical Exercise on Physical Performance of Individuals Living with Dementia in Nursing Homes: A Randomized Controlled Trial*. Wollongong (AUST): University of Wollongong; 2016.
16. Brett L, Traynor V, Meedya S, Stapley P. Impressions of using the Cohen-Mansfield Agitation Inventory as an Outcome Measure: Lessons learnt for future clinical researchers (innovative practice). *Dementia (London)*. 2017. doi.org/10.1177/1471301217695910.
17. Brett L, Traynor V, Stapley P, Meedya S. Exercise interventions for individuals living with dementia in nursing homes: Staff and family carer perceptions. *J Aging Phys Act*. 2017;26(1):1-27.
18. Neville C, Henwood T, Beattie E, Fielding E. Exploring the effect of aquatic exercise on behaviour and psychological well-being in people with moderate to severe dementia: A pilot study of the Watermemories Swimming Club. *Australas J Ageing*. 2014;33(2):124-7.
19. Henwood T, Neville C, Baguley C, Clifton K, Beattie E. Feature article: Physical and functional implications of aquatic exercise for nursing home residents with dementia. *Geriatr Nurs*. 2015;36:35-9.
20. De Souto Barreto P, Demougeot L, Vellas B, Rolland Y. How much exercise are older adults living in nursing homes doing in daily life? A cross-sectional study. *J Sports Sci*. 2015;33(2):116-24.
21. Kaye AD, Baluch AR, Kaye RJ, Niaz RS, Kaye AJ, Liu H, et al. Geriatric pain management, pharmacological and nonpharmacological considerations. *Psychol Neurosci*. 2014;7(1):15-26.
22. Davis MP, Srivastava M. Demographics, assessment and management of pain in the elderly. *Drugs Aging*. 2003;20(1):23-57.
23. Shrestha S, Schofield P, Devkota R. A critical literature review on non-pharmacological approaches used by older people in chronic pain management. *Indian J Gerontol*. 2013;27(1):135-61.
24. Tse MMY, Tang SK, Wan VTC, Vong SKS. The effectiveness of physical exercise training in pain, mobility, and psychological well-being of older persons living in nursing homes. *Pain Manag Nurs*. 2014;15(4):778-88.
25. Chan GZP, Chin CKL, McKittrick DJ, Warne RW. Does the aged care funding instrument provide increased funding in residential care? Comparisons with the residential classification scale. *Australas J Ageing*. 2014;33(2):121.
26. Deloitte Access Economics. *Australia's Aged Care Sector: Economic Contribution and Future Directions. Aged Care Guide*. Sydney (AUST): Deloitte; 2016.
27. Australian Physiotherapy Association. *Aged Care Funding Needs a Change of Tune* [Internet]. Melbourne (AUST): APA; 2016 [cited 2016 Oct 13]. Available from: www.physiotherapy.asn.au/APAWCM/APAWCM/The_APA/news/2016/Sep/Aged-care_funding_needs_a_change_of_Tune.aspx
28. McNamee J, Poulos C, Seraji H, Kobel C, Duncan C, Westera A, et al. *Alternative Aged Care Assessment, Classification System and Funding Models Final Report*. Wollongong (AUST): University of Wollongong Centre for Health Service Development, Australian Health Services Research Institute; 2017.
29. Mavromaras K, Knight G, Isherwood L, Crettenden A, Flavel J, Karmel T, et al. *2016 National Aged Care Workforce Census and Survey - The Aged Care Workforce, 2016*. Canberra (AUST): Australian Department of Health; 2017.
30. Senate Standing Committees on Community Affairs. Chapter 3 - The Aged Care Standards and Accreditation Agency. In: *Quality and Equity in Aged Care Report* [Internet]. Canberra (AUST): Government of Australia; 2005 [cited 2017 Jan 20]. Available from: http://www.aph.gov.au/Parliamentary_Business/Committees/Senate/Community_Affairs/Completed_inquiries/2004-07/aged_care04/report/c03
31. Bowes A, Dawson A, Jepson R, McCabe L. Physical activity for people with dementia: A scoping study. *BMC Geriatr*. 2013;13:10.

Correspondence to: Dr Lindsey Brett, Centre for Health Systems and Safety Research, Australian Institute of Health Innovation, Macquarie University, Level 6 - 75 Talavera Road, NSW 2109; e-mail: lindsey.brett@mq.edu.au