

Physical activity REHABILITATION, REABLEMENT, & RESTORATIVE CARE

This evidence theme is a summary of one of the key topics identified by a scoping review of rehabilitation, reablement, and restorative care research.

Key points

- There is conclusive evidence that physical activity is important to older people's lives.
- Physical activity can be prescribed as an intervention (e.g., exercise programs) or used as a measurement of the effectiveness of interventions (e.g., physical activity levels after implementing an exercise program).
- The barriers faced by older adults attempting to participate in physical activity should be considered when planning interventions.
- Ensure services are delivered in a way that promotes independence, focussing on what the person can do and encouraging them to continue doing it and undertaking activities with them rather than for them.

What role does physical activity have in rehabilitation?

The World Health Organization (WHO) defines physical activity as 'any bodily movement produced by skeletal muscles that requires energy expenditure.' Physical activity refers to all movement including 'during leisure time, for transport to get to and from places, or as part of a person's work.' [1]

Physical activity in rehabilitation, reablement, and restorative care is presented in various forms including activities of daily living, walking, and formal exercise programs.

Physical activity



What is known about physical activity?

We found nine reviews [2-11] on physical activity. The reviews addressed physical activity as both an intervention and outcome measure.

Physical activity as an intervention

Physical activity interventions for rehabilitation and reablement in aged care comprise exercise programs of varying activity types, goals, frequency, and duration. The evidence suggests that:

- Chair based resistance band exercises may be effective in improving physical function, sleep quality, and reducing depression for older people living in long-term care facilities. [2]
- The OTEGO exercise program may maintain and enhance postural control, [3] as well as improve physical function and health status in older people living in residential aged care. [4]
- Therapeutic exercises conducted on three or more days a week as a group may be effective to improve activities of daily living and cognitive function. [5] Multicomponent training, including resistance activities, may be effective in improving the physical performance of older adults in long-term care facilities. [6]
- When interpreting outcomes of physical activity interventions, the baseline characteristics of older people should be considered. Individuals with chronic conditions and mobility issues are less likely to demonstrate significant improvements in overall walking speed.
- The type of physical activity intervention and important parameters need to consider the specific needs of the older people receiving aged care across a range of settings. [7]

Barriers to physical activity among residents of long-term residential care have been categorised into individual, environmental, and organisational factors. [8]

- Individual barriers can include poor health, lack of energy, anxiety, agitation, use of sedatives, fear of falling, injury, and history of inactivity.
- Environmental barriers can include limited living space and lack of designated area for exercise and exercise equipment, inadequate lighting, insufficient signposting for residents (a problem for those with visual impairments), and lack of rest breaks.
- Organisational barriers include funding limitations and staffing constraints, lack of staff time to incorporate physical activity into residents' daily routine, lack of communication or handovers among staff, and lack of support from nurses, families, and doctors.
- Other barriers include a mismatch between the prescribed physical activity program and the resident's needs and abilities.

Physical activity as an outcome

Physical activity is a common outcome used to measure the effectiveness or impact of a range of interventions. For example:

- Community participation among older people transitioning from hospital to home was assessed using physical activity. Specific measures include the Walking ABILICO questionnaire, Australian Therapy Outcome Measures (AusTOMs)-OT, and self-reported measures.
- The effectiveness of eHealth geriatric rehabilitation interventions was assessed using physical activity levels. [10]
- Effectiveness of the Home Independence Program (HIP) or restorative home care service was assessed using levels of physical activity, specifically the Physical Activity Scale for the Elderly (PASE). [11]

What can an individual do?

Family carers and aged care workers can support the physical activity of people with dementia in the following ways.

- Encourage older people to perform any form of physical activity each day to improve or maintain their physical health.
- Consider doing activities 'with' rather than 'for' people with dementia. Doing things for people can rob them of opportunities to be independent and to maintain function.
- Using levels of physical activity to measure the impact of exercise programs and provide these results to older adults as a form of motivation.

What can the organisation do?

Organisations can support interventions and strategies to improve physical activity for older people in aged care by:

- Designing physical activity or exercise programs tailored to the needs of older people.
- Procuring essential resources and other equipment to ensure effective implementation of physical activity programs.
- Assessing and eliminating barriers in local settings to ensure effective implementation of physical activity programs.
- Ensuring services are delivered in a way that promotes independence, focussing on what the person can do and encouraging them to continue doing it and undertaking activities with them rather than for them.

References

 World Health Organisation. Physical activity [Internet]. Geneva: WHO; 2020 [cited 20232 Jul 1]. Available from: https://www.who.int/news-room/fact-sheets/detail/physical-activity

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- Efendi F, Tonapa SI, Has EMM, Ho KHM. Effects of chairbased resistance band exercise on physical functioning, sleep quality, and depression of older adults in long-term care facilities: Systematic review and meta-analysis. Int J Nurs Sci. 2023;10(1):72-81.
- Kong L, Zhang X, Zhu X, Meng L, Zhang Q. Effects of Otago exercise program on postural control ability in elders living in the nursing home: A systematic review and meta-analysis. Medicine. 2023;102(11):e33300-e33300.
- Peng Y, Yi J, Zhang Y, Sha L, Jin S, Liu Y. The effectiveness of a group-based Otago exercise program on physical function, frailty and health status in older nursing home residents: A systematic review and metaanalysis. Geriatr Nurs. 2022;49:30-43.
- Okamae A, Ogawa T, Makizako H, Matsumoto D, Ishigaki T, Kamiya M, et al. Efficacy of therapeutic exercise on activities of daily living and cognitive function among older residents in long-term care facilities: A systematic review and meta-analysis of randomized controlled trials. Arch Phys Med Rehabil. 2023;104(5):812-823.
- Pinheiro ÉP, Cavalheiro do Espírito Santo R, Peterson Dos Santos L, et al. Multicomponent or resistance training for nursing home residents: A systematic review with meta-analysis. J Am Med Dir Assoc. 2022;23(12):1926.e1-1926.e10.
- Burton E, Farrier K, Galvin R, Johnson S, Horgan NF, Warters A, et al. Physical activity programs for older people in the community receiving home care services: Systematic review and meta-analysis. Clin Interv Aging. 2019;14:1045-64.
- Benjamin K, Edwards N, Ploeg J, Legault F. Barriers to physical activity and restorative care for residents in long-term care: A review of the literature. J Aging Phys Act. 2014;22(1):154-65.
- Gough C, Baker N, Weber H, Lewis LK, Barr C, Maeder A, et al. Integrating community participation in the transition of older adults from hospital to home: A scoping review. Disabil Rehabilit. 2021:1-13.
- Kraaijkamp JJM, van Dam van Isselt EF, Persoon A, Versluis A, Chavannes NH, Achterberg WP. eHealth in geriatric rehabilitation: Systematic review of effectiveness, feasibility, and usability. J Med Internet Res. 2021;23(8):e24015.

 Pettersson C, Iwarsson S. Evidence-based interventions involving occupational therapists are needed in re-ablement for older community-living people: A systematic review. Brit J Occupat Ther. 2017;80(5):273-85.

Cite as: ARIIA Knowledge & Implementation Hub. Physical activity: Rehabilitation, reablement, & restorative care. Evidence Theme. Adelaide, SA: ARIIA; 2022 [updated 2023 Aug].

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