

Conference Abstract

Telehealth to deliver physiotherapy-led exercise to improve mobility and reduce falls in aged care: results from the TOP UP trial

Part of Special Series: Abstracts from the 15th National Rural and Remote Allied Health Conference (2024) ➤

AUTHORS



Rik Dawson^{1,2} PhD, Postdoctoral Research Associate  [https://orcid.org/0000-0001-9652-4711]



Juliana Oliveira^{1,2} Research Fellow  [https://orcid.org/0000-0002-8044-8520]



Leanne Hassett^{1,2} Associate Professor  [https://orcid.org/0000-0002-3546-1822]



Marina Pinheiro^{1,2} Senior Lecturer



Abby Haynes^{1,2}  [https://orcid.org/0000-0001-5703-5683]



Cathie Sherrington^{1,2} Professor  [https://orcid.org/0000-0001-8934-4368]

AFFILIATIONS

¹ Sydney Musculoskeletal Health, The University of Sydney, Camperdown, NSW 2050, Australia

² Institute for Musculoskeletal Health, Sydney Local Health District, Camperdown, NSW 2050, Australia

PUBLISHED

5 February 2025 Volume 25 Issue 1

HISTORY

RECEIVED: 29 January 2025

ACCEPTED: 29 January 2025

CITATION

Dawson R, Oliveira J, Hassett L, Pinheiro M, Haynes A, Sherrington C. Telehealth to deliver physiotherapy-led exercise to improve mobility and reduce falls in aged care: results from the TOP UP trial. Rural and Remote Health 2025; 25: 9740.
<https://doi.org/10.22605/RRH9740>

This work is licensed under a Creative Commons Attribution 4.0 International Licence

Introduction: This presentation examines the effectiveness and implementation of telephysiotherapy for exercise programs in aged care. A systematic review guided the development of the TOP UP Study¹. Co-designed with input from older adults, caregivers and aged care staff, TOP UP is a hybrid type 1 effectiveness and implementation trial aimed at improving mobility, reducing falls and enhancing quality of life through telephysiotherapy interventions for older adults in aged care².

Methods: TOP UP evaluated a 6-month telephysiotherapy intervention, which included 10 Zoom sessions where a physiotherapist prescribed a 2-hour tailored moderate intensity balance and strength exercise program to aged care recipients across 27 rural and metropolitan sites. TOP UP was supported by exercise videos accessed via a website and weekly support from a trained care worker. The study received approval from the Human Research Ethics Committee at The Sydney Local Health District, Concord, Australia (CH62/6/2021-009).

Results: The TOP UP Study demonstrated moderate adoption (47%) and reach (18%), high feasibility (77%) and safety (one non-injurious fall recorded), with an average strength and balance exercise dose of 1.7 hours/week. Qualitative analysis highlighted themes such as enhanced opportunities at home, engagement with senior-friendly resources and the importance of local support³. The program significantly improved mobility, with intervention groups scoring 2.1 points higher on the Short Performance Physical Battery test ($p < 0.01$), a 40% reduction in falls (approaching statistical significance, $p = 0.06$) and 38% fewer fallers (risk ratio 0.62, 95%CI 0.42 to 0.92). There was a significant reduction of 1.1 points on the 10-point pain scale (95%CI -1.8 to -0.3, $p = 0.005$), and a significant increase of 6.2 points (95%CI 1.8 to 10.7, $p = 0.006$) on the EQ-5D-5L VAS 100-point scale.

Discussion: The findings highlight telephysiotherapy's significant potential for delivering reablement care in rural settings. They emphasise the necessity for organisational commitment to integrate telehealth with local support and senior-friendly digital resources to motivate older people to exercise.

Conclusion: A co-designed model of telephysiotherapy is a safe, effective and feasible option for improving mobility, reducing falls, managing pain and enhancing the quality of life for aged care service users.

References

1 Dawson R, Oliveira J, Kwok WS, Bratland M, Rajendran IM, Srinivasan A, Chu CY, Pinheiro MB, Hassett L, Sherrington C. Exercise interventions delivered through telehealth to improve physical functioning for older adults with frailty, cognitive, or mobility disability: a systematic review and meta-analysis. *Telemedicine and e-Health* 2024; **30(4)**: 940–950. <https://doi.org/10.1089/tmj.2023.0177> <https://www.ncbi.nlm.nih.gov/pubmed/37975811>

2 Dawson R, Pinheiro M, Nagathan V, Taylor M, Delbaere K, Olivera J, Haynes A, Rayner J, Hassett L, Sherrington C. Physiotherapy-led telehealth and exercise intervention to improve mobility in older

people receiving aged care services (TOP UP): protocol for a randomised controlled type 1 hybrid effectiveness-implementation trial. *BMJ Nutrition, Prevention & Health* **6(2)**: 273–281. <https://doi.org/10.1136/bmjnp-2022-000606> <https://www.ncbi.nlm.nih.gov/pubmed/38618537>

3 Dawson R, Gilchrist H, Pinheiro M, Nelson K, Bowes N, Sherrington C, Haynes A. Experiences of older adults, physiotherapists, and aged care staff in the TOP UP telephysiotherapy program: interview study of the TOP UP interventions. *JMIR Aging* 2024; **7**: e53010. <https://doi.org/10.2196/53010> <https://www.ncbi.nlm.nih.gov/pubmed/38324369>

This PDF has been produced for your convenience. Always refer to the live site <https://www.rrh.org.au/journal/article/9740> for the Version of Record.