

## Reablement interventions in care homes: the need for theory and process evaluation

Peter Hartley<sup>1,2\*</sup>, Krystal Warmoth<sup>3,4</sup>, Adam L Gordon<sup>5,6</sup>, Victoria A Goodwin<sup>7,8</sup>

1. Department of Physiotherapy , Cambridge University Hospitals NHS Foundation Trust, Cambridge, UK
2. Department of Public Health and Primary Care, University of Cambridge, Cambridge, UK
3. Centre for Research in Public Health and Community Care (CRIPACC), University of Hertfordshire, Hatfield, UK
4. NIHR Applied Research Collaboration East of England, Cambridge, UK
5. Academic Unit of Injury, Inflammation and Recovery Sciences, School of Medicine, University of Nottingham, Nottingham, UK
6. NIHR Applied Research Collaboration-East Midlands (ARC-EM), Nottingham, UK
7. Faculty of Health and Life Sciences, University of Exeter, Exeter, UK
8. NIHR Applied Research Collaboration South West Peninsula

\* Corresponding author

Peter Hartley

[ph492@medschl.cam.ac.uk](mailto:ph492@medschl.cam.ac.uk)

**Keywords:** Reablement, Care homes, Process evaluation, Programme theory, Older people

### Keypoints:

- The certainty of evidence for the effect of reablement interventions for older adults living in care homes was very low.
- Theoretical underpinning of complex interventions should be an integral part of intervention development.
- Refining programme theory with process evaluation will advance future work even when the results of efficacy are equivocal.

Reaching a ‘tipping point’ is often described as a reason for older people moving to a care home [1]. Such transitions frequently take place in the context of crisis, driven by acute deterioration in physical, cognitive, or mental health, or change in social circumstances associated with increased dependency. Care home residents can also experience increased dependency due to periods of deconditioning, such as during bouts of illness or extreme weather. In any other context, people experiencing acute declines in function would be offered rehabilitation, but, in the UK at least, there is evidence that care home residents cannot access such services equitably [2, 3].

This inequitable access could represent ageist therapeutic nihilism, or it could represent prudent deployment of limited resources if rehabilitation in this context is futile. Against this background, Rahja *et al.*'s [4] systematic review considering the impact of reablement interventions for care homes residents on independence with activities of daily living (ADLs) and quality of life (QoL) is welcome. The review defines reablement, using criteria developed by Metzelthin *et al.* [5], as being goal-oriented, delivered by an interdisciplinary team, and including multiple sessions. Reablement interventions could include participation in ADLs, home modifications and assistive devices, and could involve social networks. Twelve studies from ten countries were included, with interventions varying in type and dose. The certainty of evidence was classified as very low for the outcomes independence in ADLs and QoL. There remains substantial uncertainty about the effect of reablement in this setting.

Unfortunately, this means that there is insufficient evidence to recommend reablement as a routine intervention in care homes, or to conclude such interventions are ineffective. We are in the “absence of evidence” space and some way from “evidence of absence”. What is missing from most of the work to date is detailed process analysis, taking account of context, that would enable understanding of what does or does not, work, and why [6]. Such approaches are needed.

The value of process evaluation in advancing knowledge and informing future research is shown in the systematic review of process evaluations of complex interventions in care homes by Peryer *et al.* [7]. The reviewers identified factors under two themes: procedural drift, and participatory actions and learning, which mediate outcomes. These avoidable aspects of trial design likely apply to the reablement interventions in care homes and may have contributed to the uncertainty in the review by Rahja *et al.* [4]. As well as providing an understanding of factors that mediate the outcomes of interventions, process evaluation based on programme theory can also help understand whether the intervention worked or did not work as theorised. Knowing why something worked is arguably as important as knowing that it did.

Developing programme theories that explain how interventions work is central to the Medical Research Council's guidance on developing complex interventions [6, 8]. Programme theories articulate expected causal pathways between interventions and outcomes, and how factors such as those identified by Peryer *et al.* [7] may mediate these pathways [8, 9]. A programme theory should be developed as part of the intervention design, and, through process evaluation, be refined during

and after completion of the trial [8, 9]. An example of a programme theory for a complex intervention for care homes is presented in Leighton *et al.* [10]. Leighton *et al.* [10] report their evaluation of the Falls in Care Homes (FinCH) trial, which evaluates the Guide to Action in Care Home programme (GtACH), a falls prevention intervention.

Theoretical underpinning of complex interventions such as reablement should be integral to intervention development [8, 9]. In explaining their findings, Rahja *et al.* [4] write that “expectations for regained independence, improved participation and increased QoL may also be inappropriate” and suggest alternative outcomes. Early articulation and co-production of programme theory with care home residents, staff, and the reablement team should ensure that outcome measures are meaningful to residents and can reasonably be expected to change through reablement. Further, this process can help ensure intervention components are feasible and designed specifically to act on the chosen outcomes [11]. This reduces uncertainty about the appropriateness of the outcomes and enables articulation to clinicians delivering the intervention about how and why it is likely to work [11].

Following the development of programme theory, process evaluation during feasibility or efficacy trials should refine the theory [8, 9]. This process can be used to confirm or disprove the theorised causal pathways [6]. For example, in Rahja *et al.* [4], most studies used goal setting as part of the intervention. The setting and achievement of goals would likely be key mechanisms of the causal pathway in a programme theory. The use of process evaluation could refine the theory through an evaluation of the relative importance to improved outcomes of the nature of the goals, and who sets and owns the goals. Confirmation of the theorised causal pathway might include analysis of whether goals were achieved and whether this led to improvements in QoL or independence with ADLs. Refined theory could then be used in future research to redesign goal-setting protocols, or aspects of the intervention to conform to the revised causal pathway. An example of this is seen in the evaluation of the FinCH trial [10], where an alternative causal mechanism to the original programme theory was described. The evaluation suggested that training staff to use the GtACH tool might establish increased commitment to, and confidence with, reducing falls, which might reduce falls even in the absence of fidelity to using the GtACH tool [10]. Understanding the ‘active ingredients’ of the intervention is expected to benefit the translation of research into practice and transferring learning to other settings [8].

The Rahja *et al.* [4] review highlights the ongoing need for research into rehabilitation interventions for older adults living in care homes. We suggest that researchers use a methodology that, regardless of proving or disproving the null hypothesis, deepens our understanding of how and why an intervention may provide benefit. This will ensure better use of limited resources and accelerate improvements in care.

**Declaration of Conflicts of Interest:** None

**Declaration of Sources of Funding**

P.H. is funded by a National Institute of Health Research (NIHR) Development and Skills Enhancement Award (ref. NIHR302399). K.W. is funded by the NIHR Applied Research Collaborations (ARC) for East of England. A.L.G. is part-funded by the NIHR ARC for East Midlands (ARC-EM) and is an NIHR Senior Investigator. V.G. is funded by the NIHR ARC for South West Peninsula. The views and opinions expressed herein are those of the authors and do not necessarily reflect those of the NIHR or the ARC.

## References

1. Samsi K, Cole L, Manthorpe J. 'The time has come': reflections on the 'tipping point' in deciding on a care home move. *Aging Ment Health*. 2021 Jul 19;19:1-7.
2. Barodawala S, Kesavan S, Young J. A survey of physiotherapy and occupational therapy provision in UK nursing homes. *Clin Rehabil*. 2001 Dec;15(6):607-10.
3. Steves CJ, Schiff R, Martin FC. Geriatricians and care homes: perspectives from geriatric medicine departments and primary care trusts. *Clin Med (Lond)*. 2009 Dec;9(6):528-33.
4. Rahja M, Laver K, Whitehead C, Pietsch A, Oliver E, Crotty M. A systematic review and meta-analysis of reablement interventions for people in permanent residential aged care homes. *Age and Ageing*. 2022.
5. Metzelthin S, Rostgaard T, Parsons M, Burton E. Development of an internationally accepted definition of reablement: a Delphi study. *Ageing and Society*. 2022;42(3):703-18.
6. Moore GF, Audrey S, Barker M, Bond L, Bonell C, Hardeman W, et al. Process evaluation of complex interventions: Medical Research Council guidance. *BMJ*. 2015 Mar 19;350:h1258.
7. Peryer G, Kelly S, Blake J, Burton JK, Irvine L, Cowan A, et al. Contextual factors influencing complex intervention research processes in care homes: a systematic review and framework synthesis. *Age Ageing*. 2022 Mar 1;51(3).
8. Skivington K, Matthews L, Simpson SA, Craig P, Baird J, Blazeby JM, et al. A new framework for developing and evaluating complex interventions: update of Medical Research Council guidance. *BMJ*. 2021 Sep 30;374:n2061.
9. O'Cathain A, Croot L, Duncan E, Rousseau N, Sworn K, Turner KM, et al. Guidance on how to develop complex interventions to improve health and healthcare. *BMJ Open*. 2019 Aug 15;9(8):e029954.
10. Leighton PA, Darby J, Allen F, Cook M, Evley R, Fox C, et al. A Realist Evaluation of a Multifactorial Falls Prevention Programme in Care Homes. *Age Ageing*. 2022;Accepted.
11. Davidoff F, Dixon-Woods M, Leviton L, Michie S. Demystifying theory and its use in improvement. *BMJ Qual Saf*. 2015 Mar;24(3):228-38.