

# Self-managed hospital-to-home interventions necessary for frail older adults, finds study

July 17 2023

---



Credit: Unsplash/CC0 Public Domain

Frailty leaves older adults especially vulnerable—and increases their stays in hospital—which underlines the importance of a self-managed exercise and nutrition program that Flinders University is developing to

help reduce frailty.

The Flinders University research team has led a study that examines the effect of an individualized hospital-to-home, self-managed exercise and nutrition [intervention](#) for pre-frail and frail [older adults](#) who are hospitalized—and has found encouraging results in helping to reduce frailty. The research—"Individualized Hospital to Home, Exercise-Nutrition Self-Managed Intervention for Pre-Frail and Frail Hospitalized Older Adults: The INDEPENDENCE Randomized Controlled Pilot Trial"—has been published in *Clinical Interventions in Ageing*.

The [pilot program](#)—INDividualized therapy for Elderly Patients using Exercise and Nutrition to reduce depenDENCE post discharge (INDEPENDENCE)—was developed by a group of researchers at Flinders University that involved dieticians (Professor Michelle Miller, Dr. Alison Yaxley and Dr. Chad Han, as part of his Ph.D. with College of Nursing and Health Sciences at Flinders University), physiotherapist Dr. Claire Baldwin and physician Associate Professor Yogesh Sharma.

The novelty of this program was the adaptation of a chronic condition self-management model developed by Professor Malcolm Battersby, initially for self-management of conditions such as diabetes, for pre-frailty and frailty.

"Pre-frailty and frailty in older adults are associated with poor health outcomes and increased health-care costs—and these worsen during hospitalization," says Dr. Han, who is now a research fellow within the Cancer Survivorship Program focusing on models of care and Geriatric Oncology, at Flinders University's Caring Futures Institute.

"We found that a well-accepted self-managed exercise and nutrition intervention program with good preliminary effectiveness that can help to reduce frailty, as measured by the Edmonton Frail Scale.

The randomized control trial—the INDEPENDENCE pilot—examined pre-frail or frail older adults admitted to South Australian hospitals between September 2020 and June 2021, and measured the variables of their adherence to the intervention program.

This included monitoring the frailty status by the Edmonton Frail Scale (EFS) score, lower extremity physical function, handgrip strength, [nutritional status](#), cognition, mood, health-related quality of life, risk of functional decline, unplanned readmissions.

The researchers found that adherence to the inpatient and home visits plus telehealth intervention were high. Intention-to-treat analysis showed that participants in the intervention group had significantly greater reduction in EFS at three and six months compared to the control group; particularly the functional performance component.

There were also improvements among the [intervention group](#) compared to the [control group](#) in three key areas —the overall Short Physical Performance Battery score at three and six months, the mini-mental state examination at three months, and handgrip strength and Geriatric Depression Scale at six months.

"This study provides proof of acceptability and adherence to a patient self-managed exercise-[nutrition program](#) that may reverse or slow down the progression of pre-frailty and [frailty](#) in hospitalized older adults," says Dr. Han.

"The results may provide guidance to clinicians and researchers looking to develop or implement self-managed exercise-nutrition program for pre-frail and frail hospitalized older adults.

"In a selected group of older adults, such a program might support patient autonomy, enabling them to maintain independence, through

implementation of exercise and nutritional self-care.

"It is also important to note that results could change with longer follow-up beyond six months, and further research is required to assess the sustainability of such an intervention."

**More information:** Chad Yixian Han et al, Individualized Hospital to Home, Exercise-Nutrition Self-Managed Intervention for Pre-Frail and Frail Hospitalized Older Adults: The INDEPENDENCE Randomized Controlled Pilot Trial, *Clinical Interventions in Aging* (2023). [DOI: 10.2147/CIA.S405144](https://doi.org/10.2147/CIA.S405144)

Provided by Flinders University

Citation: Self-managed hospital-to-home interventions necessary for frail older adults, finds study (2023, July 17) retrieved 27 April 2024 from <https://medicalxpress.com/news/2023-07-self-managed-hospital-to-home-interventions-frail-older.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.