
ORIGINAL ARTICLE

A Randomized Controlled Trial to Determine the Effect of a Model of Restorative Home Care on Physical Function and Social Support Among Older People

John Geoffrey Morgan Parsons, PhD,^a Nicolette Sheridan, PhD,^a Paul Rouse, PhD,^b Elizabeth Robinson, BSc,^c Martin Connolly, MD^d

From the ^aSchool of Nursing, ^bBusiness School, ^cSchool of Population Health, and ^dFreemasons' Department of Geriatric Medicine, The University of Auckland, Auckland, New Zealand.

Abstract

Objective: To determine the impact of a restorative model of home care on social support and physical function among community-dwelling older people.

Design: Cluster-randomized controlled trial.

Setting: Home care in an urban area.

Participants: Participants (N=205) were randomly assigned to an intervention group (n=108; mean age, 79.1y; 71.3% women; 81.5% New Zealand European [NZE]; 50.8% residing in areas of the highest levels of social deprivation) or a usual care group (n=97; mean age, 76.9y; 60.8% women; 73.2% NZE; 53.5% in the highest levels of social deprivation).

Intervention: Participants randomly assigned to the intervention group completed a goal facilitation tool with a needs assessor to determine their needs and to establish the aims for the episode of care. Services were structured according to the principles of restorative home care (independence focused with individually tailored activity programs). Usual care participants received a standard needs assessment that informed the delivery of home care services.

Main Outcome Measures: Short Physical Performance Battery (SPPB), Dukes Social Support Index (DSSI).

Results: There was greater change over time in physical function (measured by SPPB: F=8.30, P=.003) but no associated increase in social support (as determined by DSSI: F=2.58, P=.09).

Conclusions: Significant improvements in physical function were observed after a period of restorative home care services. The absence of an associated change in social support may have been the result of a combination of factors, including the threshold of physical function required for community ambulation, the low rate of allied health service provision, and the time required to reestablish social ties. The findings contribute to a greater understanding of factors necessary to refocus home-based services to emphasize improvements in physical function and independence. Archives of Physical Medicine and Rehabilitation 2013;94:1015-22

© 2013 by the American Congress of Rehabilitation Medicine

For older people, physical function is integral to achieving and maintaining independence and is a major contributor to overall health status.¹ Functional capacity inside, and more importantly outside the home environment, is essential for independent living.^{2,3}

Furthermore, mobility outside the home has been shown to have a strong association with greater emotional support from social networks,^{4,5} including the maintenance of cultural connections.⁶

Up to half of older people lose some functional ability during hospitalization.⁷ Three months after discharge from the hospital, two thirds of them still have reduced physical functioning.⁸ Traditional models of home care often miss the opportunity to maximize an older person's physical function and independence. Evidence suggests that they often focus on completing tasks and activities that older persons are unable to complete or that they

Supported by the New Zealand Health Research Council Disability Research Placement Programme (grant no. 06/627) and by the University of Auckland.

No commercial party having a direct financial interest in the results of the research supporting this article has or will confer a benefit on the authors or on any organization with which the authors are associated.

Australian New Zealand Clinical Trials Registry Number: ACTRN12608000027314.

find difficult. This has been shown to lead to an increased level of dependency and a concomitant loss in function.⁹ Various models of home care that concentrate on optimizing function and independence have been described previously, including “Reablement” (United Kingdom),^{10,11} “Active Service Model” (Australia),¹²⁻¹⁴ and “Restorative Home Support” (New Zealand and United States).¹⁵⁻²²

Restorative home care focuses on the restoration and maintenance of older people’s physical function, so that the highest possible level of function is achieved. The model integrates principles from medicine, nursing, goal facilitation, and rehabilitation to improve functional outcomes for older people. Progressive restorative programs assist older people to identify life goals, and then home care aides engage with older people to help achieve the goals, often through engagement with relevant services. Several key components of restorative home care have been identified. One of these involves reorienting the focus of the home care team from treating disease and creating dependency to maximizing function and comfort. This has required individuals to work as an integrated interprofessional team with shared goals.¹⁶ Other key features of restorative home care are functional and repetitive exercises incorporated into activities of daily living,²³⁻²⁶ home care aide training and enhanced supervision,²⁷⁻³⁰ health professional training,¹⁵⁻¹⁷ comprehensive geriatric assessment,³¹⁻³³ and coordinated care management.³⁴⁻⁴¹

This study sought to determine whether provision of restorative home care to a sample of community-dwelling older people in New Zealand would result in an improvement in physical function and social support when compared with a group receiving standard home care. More specifically, the study explored the impact of aligning service delivery through individually tailored activities to support the older person in attaining his/her goals.

Methods

Setting and participants

Community-dwelling people older than 65 years (55y if Māori or Pacific Islander) were eligible for entry into the study if they were new referrals for home care. The lower age criterion for Māori and Pacific people was in line with the recommendations from the New Zealand Guidelines Group for assessment of older people with complex needs.⁴²

Ethical approval was gained on December 20, 2006, from the Northern Y Regional Ethics Committee (NTY/06/12/132), and the study was registered with the Australian New Zealand Clinical Trials Registry (ACTRN12608000027314).

The following criteria excluded those who were unlikely to complete the study intervention and follow-up: (1) severe cognitive impairment that may have compromised adherence to the intervention, defined as an Abbreviated Mental Test score⁴³ of less

than 7/10; and (2) referral for assessment for admission to a residential facility, carer support, or short-term services.

Randomization and interventions

The study was a prospective, cluster-randomized controlled trial with 2 arms. Randomization occurred through a 5-step process. Step 1 involved collection of all referrals to the care coordination agency for home care from primary care physicians from February to June 2006. In step 2, the referrals were then separated into 4 geographic pods aligned to the care delivered by the needs assessment team. Step 3 involved the allocation of primary care practices to blocks within each pod. The number of blocks corresponded to the number and full-time equivalent of care coordination staff within each pod. The allocation was stratified in an attempt to ensure that there was parity across the blocks in relation to the number of referrals received. In step 4, the blocks within each pod were randomly assigned as either usual care or intervention. This activity was undertaken to ensure that equal numbers were allocated to each pod. Step 5 then involved the allocation of an individual needs assessor to each study group through the use of a numeric list randomly generated within Microsoft Excel.^a The allocation of participants to each of the 2 study groups was undertaken by the administration staff within the needs assessment agency administration staff, and the allocation was not revealed to the research team until after consent had been obtained.

Within New Zealand, a nationally standardized comprehensive geriatric assessment, the Support Needs Assessment (SNA) tool,⁴⁴⁻⁴⁶ has been used since 1992 by needs assessors to determine an older person’s level of need and to direct the required input of home care to meet that need. The SNA tool examines a number of areas including cognition, informal caregiver stress, safety, and nutrition.

The usual care process used the SNA tool undertaken by a needs assessor randomly assigned to the usual care group. After completion of the SNA tool, the needs assessor worked with the participant to identify the services that would be provided and how many hours were required. This information was passed to the home care provider contracted to deliver services. The home care organization then prepared a support plan to meet the identified needs of the older person.

The study intervention involved a needs assessor who had been randomly assigned to the intervention group. The assessor used a goal-setting tool (Towards Achieving Realistic Goals in Elders Tool [TARGET]) during the initial assessment process of the participant to establish the aims of the rehabilitation episode. The assessment phase incorporated 2 outcome tools, namely, the Nottingham Extended Activities of Daily Living Scale (NEADL)⁴⁷ and the EuroQoL 5D⁴⁸ (EQ-5D), into the SNA tool. The NEADL was used to quantify an individual’s level of functioning, and the EQ-5D is a descriptive tool, measuring health status, that features mental health and pain in the questionnaire. There were 3 scoring levels for each of the 5 dimensions (mobility, self-care, usual activities, pain/discomfort, anxiety/depression). After assessment, a long-term goal was identified together with necessary short-term goals through a process of activity breakdown to form a goal ladder. This included addressing areas of deficit such as falls risk, decreased muscle strength, difficulty with showering, and other personal cares that may have prevented the older person from attaining his/her goal.

List of abbreviations:

DSSI	Dukes Social Support Index
EQ-5D	EuroQoL 5D
NEADL	Nottingham Extended Activities of Daily Living Scale
SNA	Support Needs Assessment
SPPB	Short Physical Performance Battery
TARGET	Towards Achieving Realistic Goals in Elders Tool

Download English Version:

<https://daneshyari.com/en/article/3449326>

Download Persian Version:

<https://daneshyari.com/article/3449326>

[Daneshyari.com](https://daneshyari.com)