JAMDA

Original Study

An Overview of Potential Labor-Saving and Quality-Improving Innovations in Long-Term Care for Older People

Theresa Thoma-Lürken MSc [a,*], Michel H.C. Bleijlevens PhD [a,*], Monique A.S. Lexis PhD [b], Jan P.H. Hamers PhD, RN [a], Luc P. de Witte PhD, MD [a,b]

[a] School for Public Health and Primary Care (CAPHRI), Department of Health Services Research, Maastricht University, Maastricht, The Netherlands
[b] Zuyd University of Applied Sciences, Research Center Technology in Care, Heerlen, The Netherlands

ABSTRACT

Objectives: Increasing demands in long-term care for older people and a decrease in workforce availability can be expected in the future. These developments challenge the sustainability and quality of long-term care for older people. To address these challenges, long-term care organizations are forced to innovate. The aim of this study is to provide an overview of potential labor-saving and quality-improving innovations long-term care organizations are working on and to assess the self-reported extent of effectiveness.
Design: This is a descriptive cross-sectional study.
Methods: In total, 32 long-term care organizations in the region of Limburg in The Netherlands were invited to participate in the study. The inventory was performed by means of semistructured interviews with chief executive officers, managers, and staff members of the long-term care organizations. Based on the interview data, all innovations were described in a standardized form and subsequently checked by the participants. All innovations were clustered into product, process, organizational, and marketing innovations.
Results: In total, 26 long-term care organizations delivering home and/or institutional long-term care for older people participated in the study. Overall, 228 innovations were identified; some innovations were described in a similar way by different organizations. The majority of innovations were product innovations (n = 96), followed by organizational innovations (n = 75), and process innovations (n = 42). In addition to the main types, 15 other innovations incorporating characteristics of different types of innovations were detected. Little evidence about the effectiveness of the innovations was reported by the organizations.
Conclusions: This study shows that a large number and a broad variety of innovations have been implemented or are currently being developed in long-term care organizations for older people. However, according to the organizations, there is relatively little (scientific) evidence confirming the effectiveness of these innovations. More research is needed to evaluate the effects of the innovations and to indicate whether they provide real solutions to future challenges.

© 2015 AMDA – The Society for Post-Acute and Long-Term Care Medicine.

The demand for long-term care (LTC) is set to increase in the future because of the aging of the population and the increase in chronic and degenerative diseases.[1–3] At the same time, a decrease in the availability of a skilled workforce in health care can be expected in the upcoming years, while a larger workforce would be needed to deal with the increase in demand.[4] Nowadays, it is a frequently reported concern in developed countries that these developments challenge the sustainability and quality of LTC for older people.[5]

LTC comprises "a range of services required by persons with a reduced degree of functional capacity, physical or cognitive, and who are consequently dependent for an extended period of time on

help with basic activities of daily living."[5] LTC can be delivered in the home environment or in institutional LTC facilities either by informal caregivers or formal caregivers, who mostly work for LTC organizations.

In addition to demographic changes, the expectations of older people regarding LTC have changed over the years.[5] According to the "aging in place" principle, older people prefer to live in their own home environment, making their own choices and living a self-determined life for as long as possible.[5,6] Traditional modes of care delivery, for instance in "large" institutional care organizations, often do not comply with these expectations because they restrict the freedom of choice of their clients.[7,8] Furthermore, a preference for care in the home and avoiding the institutionalization of care-dependent older people for as long as possible is now a common policy aim of many European governments.[9]

To be able to deal with these developments, LTC organizations need to reconsider their service supply. To anticipate or to adapt to these societal changes, organizations can introduce innovations. There are various possibilities, for example the introduction of product innovations in care (eg, camera monitoring or movement sensors), the reorganization of care by process innovations (eg, care pathways or the use of tele-consultations between health care professionals and clients), or organizational innovations (eg, staff development programs, reorganization of care teams).

In The Netherlands, many LTC organizations are currently developing and implementing such innovations.[10–13] It is known from practice that these are mostly local initiatives on the part of single organizations. The exchange of knowledge concerning innovations between organizations seems to be scarce. Developing and implementing innovations in care organizations can be a time-consuming and expensive endeavor. If organizations were to share their experiences with regard to the development and implementation of innovations, they could save costs, prevent other organizations from struggling with the same problems, and they could profit from each other's experiences.

An overview of potential labor-saving and quality-improving innovations developed and/or are used by LTC organizations could be a valuable basis for knowledge sharing concerning innovations. Therefore, the aim of this study is to provide an overview of potential labor-saving and quality-improving innovations long-term care organizations are working on and to assess the self-reported extent of effectiveness.

Methods

Design

A descriptive cross-sectional study was conducted to identify potential labor-saving and quality-improving innovations in home care and institutional LTC organizations for older people.

Research Setting and Subjects

The study was conducted in the region of Limburg in the south of The Netherlands. It is a region with both rural and urban areas, and has approximately 1.1 million inhabitants, of whom some 230,000 are aged 65 or older.[14] Compared with the entire country, the aging of the society in Limburg is advanced in stage, with a shrinking population and an increasing proportion of older people as part of the population.[15]

All LTC nonprofit organizations that deliver either home care or institutional LTC for older people within this region were identified and invited to participate in the study.

Data Collection

Data collection took place from September 2013 to January 2014. To identify potential labor-saving and quality-improving innovations, data were collected by means of semistructured interviews with chief executive officers (CEOs), managers and staff members (if recommended by the CEO) of the LTC organizations. A standard topic list was used to guide the interviews, covering the following topics: definition of the concept "innovation" from the perspective of the participating organizations, potential labor-saving and quality-improving innovations that have been developed or have been introduced in the organization (according to their definition of innovation), future plans of the organization concerning innovations, urgent problems in care, and contact details of employees who can deliver specific information about innovations within the organizations.

Procedure

The interviews were conducted by 4 researchers from the project team (T.T.L., M.B., M.L., and N.S.). The interviews were held by pairs of researchers, one in the role of the main interviewer and one as observer. The interviews lasted approximately 1 hour. All interviews were audiotaped with the consent of the participants. Based on the information gathered from these interviews, a standard form was completed by the researchers containing the following topics with regard to the innovations: description of the innovation, goal, setting and target group, status (under development, implemented, regular practice), degree of evidence concerning the effectiveness (obtained within the organization or elsewhere), costs, name of the organization, contact person, and contact details. The prefilled forms and a manual describing how to complete the standard form were returned to the CEOs or contact persons of the LTC organizations to verify and complete the information about the innovations.

Data Analysis

The innovations were classified by the first author according to a classification from the Organization for Economic Cooperation and Development into product innovations, process innovations, marketing innovations, and organizational innovations.[16] The following definitions were used as a guideline to sort the innovations:

- A product innovation is the "introduction of a good or service that is new or significantly improved with respect to its characteristics or intended uses. This includes significant improvements in technical specifications, components and material, incorporated software, user friendliness, or other functional characteristics."[16]
- A process innovation is the "implementation of a new or significantly improved production or delivery method. This includes significant changes in techniques, equipment and/or software."[16]
- A marketing innovations is the "implementation of a new marketing method involving significant changes in product design or packing, product placement, product promotion and pricing."[16]
- An organizational innovation is the "implementation of a new organizational method in firm's business practices, workplace organization or external relations."[16]

Subsequently, 2 members of the project team checked the classification made by the first author. In the case of disagreement, they discussed the classification to reach consensus. In addition to the