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Review

Interventions to enhance the Quality of Life of older people in residential long-term care: A systematic review

Lien Van Malderen[a,b,*], Tony Mets[a,b], Ellen Gorus[a,b]

[a] Frailty in Ageing (FRIA) Research Group & Gerontology Department, Vrije Universiteit Brussel, Laarbeeklaan 103, B-1090 Brussels, Belgium
[b] Geriatrics Department, Universitair Ziekenhuis Brussel, Laarbeeklaan 101, B-1090 Brussels, Belgium

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ABSTRACT

Purpose: In residential long-term care (LTC), a growing interest exists in the older residents' Quality of Life (QoL). The Active Ageing-concept (AA) extended this focus, since AA has the aim to enhance QoL by optimising the opportunities for health, participation and security. In LTCs, AA can be outlined by 9 determinants. This systematic review aimed at identifying interventions to improve the QoL of LTC-residents. These interventions were organised according to the AA-determinants.
Methods: PubMed, Web of Science, Psychinfo and Sociological Abstracts were screened systematically. Articles were excluded when they only concerned a specific group of LTC-residents.
Results: Thirty five relevant articles, encompassing 3910 subjects were found. These concerned interventions concentrating on one or more of the 9 AA-determinants. The largest proportion of interventions regarded the physical activity level or the psychological factors of the residents. Overall, no systematic effects on QoL could be found and a low methodological quality was generally present.
Conclusion: Currently, studies aimed at enhancing the QoL of older LTC-resident are limited and often directed to physical and psychological interventions. The lack of a systematic effect on QoL is possibly related to the fact that these interventions were often not multidimensional, whereas QoL is a multidimensional concept.

1. Introduction

Quality of life (QoL) is a concept that was first recognised in the ancient Greek period (Ryan and Deci, 2001). Today, QoL has gained a prominent position within the medical, psychological, social, and public policy domains. (Gilhooly et al., 2005; Bowling and Gabriel, 2007)

Although most people feel that they know what QoL entails (Gilhooly et al., 2005), it remains difficult to define the concept as both objective and subjective aspects influence QoL (Gabriel and Bowling, 2004; Gilhooly et al., 2005). Distinctively, QoL is a multidimensional concept (Gilhooly et al., 2005; Hambleton et al., 2009) including physical, psychological and other components, even though there is a debate on the number and type of dimensions that it comprises (Hambleton et al., 2009). Furthermore, QoL is dynamic, since its meaning will vary between individuals and within individuals during their lifetime (Carr et al., 2001). Additionally, QoL reflects societal influences on people on the one hand (Gabriel and Bowling, 2004), and individual interpretations and perceptions on the other.

The QoL group of the World Health Organisation (WHO) has defined QoL broadly as "An individual's perception of his or her position in life in the context of the culture and value system where they live, and in relation to their goals, expectations, standards and concerns." (WHO, 1993).

There is a growing amount of literature on the QoL of older people (Bowling, 1995; Farquhar, 1995; Wilhelmson et al., 2005; Bowling and Gabriel, 2007). Recently, the WHO, inspired by the work of Walker and co-workers, has started to promote the concept of Active Ageing (AA) as a means to enhance the QoL of older people (Walker, 2002; WHO, 2002). AA endeavours to improve QoL by optimising the opportunities for health, participation and security. The term 'Active' in AA refers to the continuing participation of the ageing person in different aspects of life (WHO, 2002). QoL, therefore, has to be seen as the outcome of AA. The WHO (WHO, 2002) formulates seven sets of determinants (Table 1) that can contribute to the realisation of AA. All these should be addressed in order to optimise the QoL of older people. The first set of determinants is 'Culture and gender'. These determinants are called 'cross-cutting' because they influence the other WHO-determinants. Next are the 'Determinants related to health and social services'. The WHO stipulates the importance of the (access to a) continuum of care, ranging

* Corresponding author at: Frailty in Ageing (FRIA) Research Group & Gerontology Department, Vrije Universiteit Brussel, Laarbeeklaan 103, B-1090 Brussels, Belgium. Tel.: +32 2477 4208; fax: +32 2477 6364.
E-mail address: Lien.van.malderen@vub.ac.be (L. Van Malderen).

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Table 1
Overview of the Active Ageing-determinants, World Health Organisation, 2002.

Determinants	Items
Cross-cutting determinants: culture and gender	
Determinants related to health and social service systems	Health promotion and disease prevention Curative services Long-term care Mental health services
Behavioural determinants	Tobacco use Physical activity Healthy eating Oral health Alcohol Medications Adherence
Determinants related to personal factors	Biology and genetics Psychological factors
Determinants related to the physical environment	Physical environments Safe housing Falls Clean water, clean air and safe foods
Determinants related to the social environment	Social support Violence and abuse Education and literacy
Economic determinants	Social protection Income Work

from health promotion and prevention to curative and residential long-term care (LTC). Regarding the 'Behavioural determinants' the WHO encourages the promotion of a healthy lifestyle, stimulating for example physical activity and healthy eating and discouraging smoking and excessive alcohol use. 'Determinants related to personal factors' consider both biological and psychological aspects of the person. The biological aspects refer to the genetic traits and how they influence the ageing process. Among the psychological factors, cognition, self-efficacy and coping are mentioned as important. 'Determinants related to the physical environment' include the promotion of age-friendly cities, accessible public transportation and appropriate and safe housing. 'Determinants related to the social environment' encompass the provision of social support, where social networks are fostered, confronting and reducing violence and elder abuse, and promoting lifelong learning. Concerning the 'Economic determinants', the WHO denotes the importance of a proper income throughout old age, the reduction of poverty, and the stimulation of social protection. It also points to the importance of work for older people and of valuing work outside the labour market.

Currently, AA has become a central theme in national and international policies. The year 2012 has been proclaimed as the 'European Year on Active Ageing and intergenerational solidarity' and there is an increasing number of countries developing their own national AA policy (Ervik et al., 2006; Perek-Bialas et al., 2006). Research on AA is expanding and the amount of scientific literature is growing rapidly.

When studying older people living in LTC facilities, there has been a tradition to include QoL as an outcome parameter (McKee et al., 2004). It should be noted that there are different possible names for these facilities which may differ in content between countries. In this systematic review, LTC is considered a facility where users of 65 years or older reside permanently in a substitute environment and are offered shelter and elderly care, due to an increased dependency.

Previous work has mainly stressed the negative aspects of QoL in LTC (Peace et al., 1997) and pointed to a diminished QoL as compared with community dwelling older people (Scocco et al., 2006). Older people residing in LTC facilities are, due to their care needs, largely dependent on others in order to realise their QoL (Isola et al., 2008). Despite these negative findings, there is a growing emphasis on quality assurance and outcomes of care in LTC (Tester et al., 2004), with a focus on QoL and its assessment. We identified in the LTC-setting two AA-determinants that were not listed by the WHO: 'Animation/meaningful leisure' and 'Participation' (Van Malderen et al. unpublished results). Leisure time should be spent meaningfully and should encompass activities – both individual and in groups – which suit the older person. Participation has to be seen on an individual (control of one's own life and care), an organisational (stimulating self-care, giving responsibilities as organisation to the older person, etc.) and a societal level (social participation, participation in community) (Van Malderen et al. unpublished results).

Although different studies have contributed to identify the QoL-dimensions for LTC-residents, there is so far no overview of the interventions affecting their QoL. Our aim in this study, therefore, was to review systematically the literature, focusing on the identification of interventions that attempt to enhance the QoL of residents of LTC-facilities. We used the AA-determinants (Van Malderen et al. unpublished results) as a framework to organise the different interventions.

2. Methods

2.1. Literature search

The literature search for this systematic review was performed in the databases PubMed, Web of Science, Psychinfo and Sociological Abstracts.

The following search key was used: ("nursing home" or "nursing homes" or "residential care" or "long term care" or "long-term care" or "institutional care" or "resident" or "assisted living" or "houses for the elderly" or "housing for the elderly" or "institutionalised" or "institutionalized") and ("quality of life" or "satisfaction" or "well-being") and ("older people" or "older person" or "older population" or "elderly" or "aged" or "ageing" or "aging" or "oldest" or "old").

Over the four databases, this search key resulted in 5767 unique hits. When screening for relevance, English articles were included when they reported an intervention study in the LTC, directed towards residents in general, with QoL as (one of the) outcome measure(s). Articles were excluded when these were not original articles presenting an intervention study, when the studies concerned were not directed at the residents of LTC-facilities or directed only at residents with specific conditions or diseases (e.g. dementia, CVA, epilepsy, deafness . . .). Only papers published from 1990 onwards were included in order to avoid possible generation related biases. The screening for relevance was based on title and abstract. Afterwards, the remaining articles were screened on text-level. This resulted in 35 hits. A screening of the references of the included articles did not lead to additional relevant papers.

2.2. Quality assessment

The included articles were evaluated on their content and methodology. For the methodology evaluation, the methodology checklist for randomised controlled trials (RCTs) from the National Institute for Health and Clinical Excellence (NICE) (NICE, 2009a) was used for the intervention studies with randomisation to experimental and control groups. When no randomisation of participants was applied in the study, the methodology checklist for the cohort studies from NICE (NICE, 2009b) was chosen.

Two independent researchers performed the methodology evaluation of the studies. On a regular basis they compared their