

Evaluation of Dementia-Friendly Initiatives, Small-Scale Homelike Residential Care, and Dementia Village Models

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Review Article

Evaluation of Dementia-Friendly Initiatives, Small-Scale Homelike Residential Care, and Dementia Village Models: A Scoping Review



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A B S T R A C T

Keywords:

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long-term care
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dementia-village
evaluation

Objectives: Numerous initiatives are emerging to improve the care management of persons suffering from Alzheimer's disease or related disorders (ADRD). The aim of this review is to identify research evaluations of initiatives in long-term care facilities and those making society more inclusive.

Design: Scoping review with systematic search of PubMed.

Setting and Participants: Reviewed articles focused on the impact of (1) dementia-friendly initiatives (DFIs), (2) small-scale homelike (SSHL) facilities, and (3) dementia/Alzheimer villages. The intervention targets people (or their carers) with dementia or cognitive impairment.

Methods: A scoping review was performed on PubMed, including papers published up to November 2022. Further hand-searching from reference lists and the gray literature was carried out.

Results: A total of 477 articles were identified initially, and finally 12 more specifically related to the impact of DFI (n = 4) and SSHL facilities (n = 8) were selected. They included preliminary effectiveness analyses on DFI-related training and awareness intervention and comparative studies on an SSHL model. Scarce but promising results were found on the physical functioning, social participation, and quality of life for older adults living in SSHL facilities compared to those living in conventional nursing homes. No quantitative evaluation on dementia villages was published.

Conclusions and Implications: The article highlights the lack of studies providing data on the efficacy of such innovative facilities on clinical, economic, and social outcomes. Such data are essential to better characterize these models and assess their potential efficiency and reproducibility.

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As the population ages, the proportion of individuals suffering from Alzheimer's disease or related disorders (ADRD) has become a topic of growing interest. Alzheimer's disease (AD) is by far the leading cause of dementia worldwide, accounting for more than 80% of all dementia cases.¹ Worldwide, 46.8 million of people are living with dementia, and this number will almost double in the next 20 years.² According to the *Diagnostic and Statistical Manual of Mental Disorders (DSM)* criteria, dementia diagnosis (referred as major neurocognitive disorder in the *DSM 5*) requires cognitive

impairment in multiple cognitive domains, with significant repercussion on social and daily life functioning.³ A significant proportion of older adults with ADRD live in long-term care facilities or nursing homes. In high-income countries, between 33% and 50% of people with dementia were estimated to reside in a care homes.⁴ It is well known that the main cause of institutionalization is advanced dementia.^{5,6} For most people, the transition from home to institution is a critical period with potential negative repercussions reported, such as increased mortality,⁷ accelerated cognitive decline,⁸ and poorer quality of life.⁹ More generally, AD leads to a lower probability of good health and well-being for patients, and also caregivers and carers.¹⁰ Moreover, the increased economic burden caused by AD affects the health care system and society at large.¹¹ Although new scientific knowledge has led to a better understanding of AD,^{12,13} treatment options remain limited and the question of how to optimize care and support for older adults, as well as for their families, is a major public health issue.

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The development of nonpharmacologic approaches contributed to change the perception of AD by emphasizing less on the “cognitive impairment and disability” view,¹⁴ leaving more room for the dimensions of well-being, dignity, and social inclusion.^{15,16} According to the World Health Organization (WHO), social well-being is an integral part of the definition of health. Indeed, social support for older people has been associated with better perceived health,^{17,18} well-being,^{19,20} and quality of life.²¹ Good-quality social relationships have also been associated with lower cognitive decline.²² In contrast, poor social contacts increase the risk of dementia²³ and it is now well established that social isolation among older people is associated with increased mortality.^{24–27} With the efforts to switch from a vision focused on functional and cognitive deficits toward one more focused on the social health of people with dementia, new ways of conceiving support, not strictly limited to therapeutic approach, have emerged in the recent years.

In this perspective, the concept of a “dementia-friendly” society emerged in the 2000s to describe initiatives aiming at making society more welcoming and inclusive for people with dementia.²⁸ This concept echoes that of “age-friendly” initiatives developed by the WHO in 2006, which refers to the efforts promoting active and healthy ageing.²⁹ International human rights agreements affirm that all people are equally entitled to their human rights and freedom from discrimination.³⁰ Older adults with dementia are often victims of social exclusion and stigmatization because of disability and the psychobehavioral symptoms that are often associated. Stigma in turn may cause discrimination and human rights violations against people.³¹ Public education and actions aimed at reducing stigma and removing barriers in physical and social environments are common purposes of age-friendly and dementia-friendly initiatives (DFIs).³² By DFIs, WHO refers to the activities being undertaken to make the society more inclusive of people with dementia. DFIs involve all types of actions that help bring about changes to social and/or physical environment and include and empower people with dementia and their carers and families.³¹ Therefore, DFIs encompass a range of context and physical/social environments including public spaces, transportation systems, health and social facilities, and public and private buildings. Dementia-friendly communities (DFCs) are part of a global approach including efforts by neighborhoods, to improve the quality of life of local residents with dementia and their carers and families.²⁹ Like DFIs, DFCs generally aim at enhancing social and community participation and pursue 2 main objectives. First, they aim at maintaining the independence and dignity of individuals as much as possible by encouraging their engagement in daily activities and their inclusion in society. Second, they aspire to change the way society views these people (reduce stigma).³³

Following this approach, new forms of long-term care institutions have spread over the past 20 years, emphasizing psychosocial support for people in a homelike environment and prioritizing quality of life and participation in daily living and social activities.³⁴ Historically, facilities called “group living homes,” then “small-scale homelike residential care” (SSHL), were created.³⁵ These initiatives are currently being developed to deinstitutionalize special care units (SCUs), and further progress has been made with smaller models seeking to replicating home life.³⁶ This approach contrasts with that of traditional nursing homes and SCUs, where the organization of care and the daily life of residents are primarily conditioned by the functioning of the structure and its institutional logic.³⁷ Other terms used in the literature refer to these models such as Green Care Farm (in the United States) or clustered domestic residential care (in Australia).³⁸

In the same vein, the concept of “dementia village” or “Alzheimer village” emerged in 2009 at Hogeweyk (Netherlands). The term dementia (or Alzheimer) village refers to a new approach based on person-centered care and an optimization of the physical, social, and health environment. According to the initial Netherlands concept of

“De Hogeweyk,” a dementia village can be defined as a neighborhood with local life in which residents are as free as possible to pursue the way of life that they had before their admission.³⁸ In addition, there are places open to the family and the outdoors are accessible at any time of the day. To date, there are about 10 around the world: France (Dax), Norway (Kristiansand), Germany (Hamelin and Mausbach), Denmark (Svendborg), New Zealand (Rotorua), Switzerland (Wiedlisbach), Ireland (Bruff), Italy (Rome and Monza), Canada (Langley), and Australia (Bellmere and Hobart).³⁸

The emerging notions of dementia-friendly initiative (DFIs), SSHLs, and dementia-village residential care illustrate the increasing number of initiatives for people with dementia. Such initiatives or interventions seek to address the main issues faced by people with dementia by fostering social inclusion, care, and support. It is important to assess their impacts on older adults, and also in caregivers and carers supporting them. A few studies have been conducted with this aim. However, to our knowledge there has been no overview of these studies, and such an overview would be worthwhile to provide a better understanding of all these initiatives and to help design future studies. The aim of this article is to summarize the evaluation studies that were conducted on (1) dementia-friendly initiatives, (2) SSHL facilities, and (3) village facilities.

Method

The scoping review method was selected for 2 main reasons. First, as dementia-friendly initiatives, SSHL facilities and Alzheimer village are recent concepts, they are not well defined and refer to a wide range of interventions and facilities. Second, the objectives are to outline the potential impacts of these approaches based on the literature review and identify the gaps requiring further research. The method for this scoping review followed steps described by Arksey and O'Malley³⁹ and is reported in line with the PRISMA statement extension for scoping reviews⁴⁰ (Supplementary Table 1).

Stage 1: Précising the Research Question

This review sought to identify studies whose main objective was to evaluate a dementia-friendly SSHL residential care or Alzheimer/dementia village program among residents with dementia and/or their carers. The following research questions were addressed.

- What interventions or components of these approaches are actually implemented and evaluated?
- What effects of these interventions are reported?

Stage 2: Identifying Relevant Studies

All quantitative evaluations with clinical, economic, or social outcomes were selected. The review also included reviews of all types and different study designs and methodologies (longitudinal and cross-sectional studies as well as modeling work).

The terms used to search the PubMed/MEDLINE database were established around 3 themes:

Dementia-friendly: (Dementia-friendly OR dementia-inclusive OR dementia-capable OR dementia-positive)

OR.

Small-scale homelike setting: [Dementia (MeSH Terms) OR Alzheimer Disease (MeSH Terms)] AND [nursing homes (MeSH Terms) OR long-term care (MeSH Terms)] AND [group-living OR Group Homes (MeSH Terms) OR collective-living OR group-dwelling OR small-units OR small-scale OR special-care-unit OR special-care-facility OR homelike OR home-like] OR.

Table 1
Inclusion and Exclusion Criteria

Inclusion Criteria	Exclusion Criteria
<ul style="list-style-type: none"> ■ Objective is to measure the <i>clinical, economic, or social impact</i> of an intervention. ■ Intervention must rely one of the 3 concepts: <i>dementia-friendly initiative, SSHL facilities, and village.</i> ■ Evaluation based on modeling and/or <i>clinical trial including observational studies. Systematic reviews and meta-analyses</i> are included. ■ The intervention targets people (or their carers) with <i>dementia or cognitive impairment.</i> ■ Articles written in <i>English</i> ■ Publication date up to <i>November 28, 2022</i> 	<ul style="list-style-type: none"> ■ Studies assessing the burden or cost of disease ■ Quantitative research or survey results without comparative group or economic analysis component ■ Conference abstract or full paper not available

Dementia-village: (dementia-village OR alzheimer-village)

Sources published in English up to November 2022 were consulted. In a second step, the approach was completed by hand-searching from other sources such as CISMef/Cairn/HAL and Google Scholar, using the same terms. The contents and reference lists of articles of interest were reviewed manually to identify potential additional references.

Stage 3: Study Selection

The article had to refer to one of the 3 concepts: *dementia-friendly initiative, SSHL facilities, and village.* For DFIs, the article should assess a DFI such as dementia education or awareness programs or environmental designs in various contexts (public or private facilities and buildings, care in hospitals, etc). The intervention has to be explicitly qualified as "dementia-friendly" by the authors. Also, we included all dementia-friendly hospital programs that involve older persons with cognitive impairment (CI) (with or without dementia or delirium).⁴¹ Regarding SSHL facilities, the object of evaluation had to be houses or units that mimic a typical home (with a common space and individual rooms) and host a small number of residents. For the village approach, the object of evaluation had to be explicitly qualified as an *Alzheimer or dementia village.*

Stage 4: Charting the Data

All references were transferred to Zotero and the publication information (title, authors, year, country, journal, abstract) was extracted to a standardized table in Excel. One of the researchers examined the titles and abstracts of all the references identified through our PubMed/MEDLINE search strategy. From this initial analysis, articles with obvious exclusion criteria were removed. In a second step, the remaining set of references was examined in more detail through a reading of the full version of each article. A second researcher confirmed the eligibility of the selected articles and provided a second opinion when an article raised any particular question for the first reader.

Stage 5: Collating, Summarizing, and Reporting the Results

Finally, 2 members of the research team (D.K. and J.W.) read all selected articles for inclusion and exclusion criteria (see Table 1) and extracted the key information.

Results

Our literature search identified 12 relevant articles (the PRISMA flow diagram is shown in Figure 1). Four relied on DFI, including interventions in a community or hospital context. Eight articles assessed SSHL and corresponded to 4 studies (7 published articles) in addition to

a preidentified literature review.⁴² A summary of the articles selected was made for DFI (see Table 2) and SSHL facilities (see Table 3).

Dementia-Friendly Initiatives

Among the 4 publications, 2 articles assessed DFC-related program. They analyzed the impact of education programs to improve information and attitudes toward dementia.^{43,44} Both studies included economic issues with a cost-benefit analysis⁴⁴ and a preliminary social return on investment (Srol) analysis.⁴³

Goodman et al⁴³ used an evaluation framework combined several approaches including a literature review, mapping, interviews, focus groups, a survey, and case studies.^{52–54} This work first led to the construction of a logic model that is useful to assess the implementation and impact of a DFC. Finally, based on the Srol approach, the authors measured the social impact of greater engagement and awareness within the community. The calculation of a net social impact was purely hypothetical and is not intended to provide evidence of the efficiency of a DFC.

Smith assessed on 88 children (aged 9–13 years) the effectiveness of an intergenerational education program aiming at improving knowledge about and attitudes toward dementia. A cost-result analysis provided the cost per unit of benefit by dividing the total cost of the program by the number of participants who showed an improvement on child-specific dementia survey (just after the program and 6 months later). The cost per unit of benefit was estimated at 600 Australian dollars [42,000 (total direct and indirect cost of the program) / 70 (number of children)].⁴⁴

The other 2 articles assessed the impact of dementia-friendly hospital program for older adults.^{33,45}

Allegri evaluated the effectiveness of a 5-hour training courses for the hospital staff on improving dementia care practices. In this controlled nonrandomized study, 68 subjects have been allocated in the dementia care intervention group and the intervention group. Several outcomes were measured during the hospitalization: functional status, length of hospital stay, cognitive deficits severity, and behavioral and psychological symptoms of dementia. Authors observed in the dementia care intervention group a maintenance of the functional status from admission to discharge, and shorter hospitalizations compared to the control group.

Weldingh explored whether a dementia-friendly hospital program improved detection and management of patients with cognitive impairment and risk of delirium at an acute care hospital. The multicomponent intervention included implementation of an educational program for health care professionals, systematic screening of cognitive impairment, and highlighted measures to prevent and treat delirium. There were 211 participants in the intervention group and 212 in the control group. The intervention did not show any significant effect on the detection of patients but showed a reduction of the

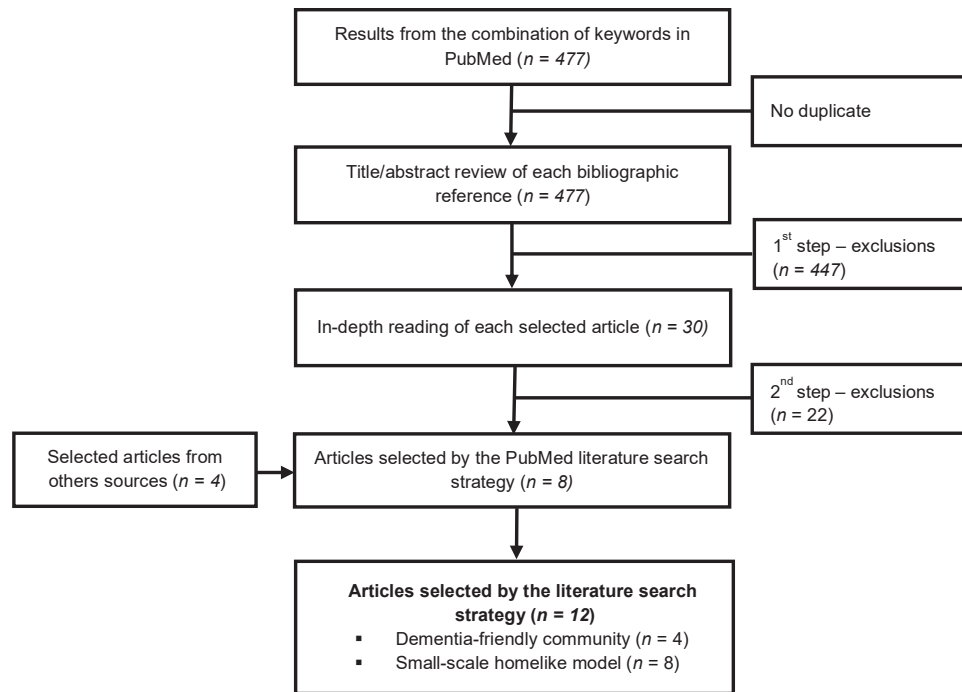


Fig. 1. PRISMA diagram. Articles selection process.

number of patients with cognitive impairment who were prescribed antipsychotic, hypnotic, or sedative medications.

SSHL Facilities

The search process identified Ausserhofer's review and involved about 20 publications from 14 studies comparing the effect of SSHL facilities on residents, family caregivers, or professionals with that of traditional facilities.⁴² In this review, only 7 studies (corresponding to 13 publications among the 20) were specific to residents with dementia. Smaller units vs traditional residential care units were evaluated over a period of at least 6 months, except for 1 study that used a cross-sectional design.⁵⁵ Compared to traditional facilities, the longitudinal studies show positive impacts of SSHL on functional abilities^{56–58} and in the activity or social engagement of residents.^{58,59} A positive impact on caregivers is also suggested in terms of satisfaction,⁶⁰ burden,⁵⁵ psychological distress⁶¹ and interaction with staff.⁶² The effect on staff has been less studied, it is reported in only 2 studies, one assessing the impact on psychological distress and the other one on job satisfaction and motivation.^{63,64}

In addition to the studies included in Ausserhofer's review, our search process identified the results of 4 comparative observational studies by Kok et al,^{46–48} De Boer et al,^{34,49} Dyer,⁵⁰ and Wimo et al⁵¹ mostly conducted in the Netherlands (corresponding to 7 articles). Kok et al^{46–48} and Dyer et al⁵⁰ compared SSHL with traditional nursing homes, whereas De Boer et al^{34,49} and Wimo et al⁵¹ added a third group of residents, "green care farms" (similar to the SSHL model) and care at home, respectively.

These new studies provide additional results and have reported greater engagement in activities in SSHL residents compared to residents living in conventional facilities,⁴⁹ as well as positive effects on psychobehavioral symptoms⁴⁸ and on the use of physical restraints.⁵⁹ Dyer et al's⁵⁰ cross-sectional study compared a standard nursing home with a type of SSHL model in Australia called "clustered domestic residential care." The study provided preliminary results regarding the impact on health care consumption.⁵¹ The clustered

domestic model was significantly associated with better quality of life, fewer hospital admissions, and lower medical costs.⁵⁰ Wimo et al⁵¹ conducted a cost-utility analysis (CUA) to assess "group living" facilities in Sweden by calculating a cost per QALY gained compared to people living at home or institutionalized. The evaluation relied on an open nonrandomized, controlled, and prospective study over 12 months, and a modeling approach. According to the modeling hypothesis, a first model showed the lowest cost-utility ratio for the care at home (CH group). With a second model, group living (GL group) showed the lowest ratio cost per QALY compared to the control groups.⁵¹

Discussion

There is a growing interest in the development of initiatives for older adults suffering from ADRD promoting social inclusion, person-centered care, and the optimization of living environments. Twelve publications reporting the evaluation of DFI and SSHL facilities were identified. This review did not identify any quantitative evaluation of the dementia-village model. The evaluative research on DFI is limited as 4 studies have been published in the last 3 years. Goodman et al⁴³ assessed a DFI that promotes dementia-inclusive communities by providing education to people at the community level. With an educational program, Smith carried out a study assessing the training of children at the individual level. Both studies assess the effectiveness of the program in rising the awareness and/or engagement of older adults with dementia, as well as persons in the general population. Impacts of DFI are addressed through short-term outcomes by measuring increased understanding of dementia and engagement of older persons with dementia and others living within the community.^{43,44} Although these evaluations included an economic analysis, their methodology remains far from the usual standards of formal evaluation studies. Two others assessed whether making hospitals more dementia-friendly affected the management of older adults with CI over the hospitalization and reported reduced drug use and shorter stay.^{33,45} Regarding hospital programs, initiatives do not emphasize on

Table 2
Dementia-Friendly Initiatives Evaluation

First Author, Year	Title	Design	Objectives	Intervention	Main Results
Goodman, 2020 ⁴³	National Institute for Health Research Policy Research Programme Project Dementia Friendly Communities: The DEMCOM Evaluation	Scoping review, qualitative and quantitative studies with economic component (Srol)	Development of an evaluation tool, impact assessment of DFC	DFC (descriptive) Education program (impacts)	<p>Description of 100 DFCs in UK (type, resource, activities, etc)</p> <ul style="list-style-type: none"> ■ no indication of funding ■ no systematic evaluation approach <p>Survey on 6 DFCs to assess engagement and awareness of dementia people in the local community (n = 244)</p> <ul style="list-style-type: none"> ■ Half knew about the existence of the DFC ■ Knowing about DFC was positively associated with more activities, and better feeling (well understood and valued in the community) <p>Economic analysis based on a survey</p> <ul style="list-style-type: none"> ■ Calculation of Srol from a logic model and scenario <p>For £1 invested in the DFC, Srol is £11.34</p>
Smith, 2020 ⁴⁴	A RE-AIM Analysis of an Intergenerational Dementia Education Program	Qualitative and quantitative studies with economic component (CRA)	Evaluate an intergenerational dementia education program in children's knowledge and attitudes	Education program: <ul style="list-style-type: none"> ■ One lesson each week (45-min) for 8 wk ■ Excursions (45-min) from week 3 	<ul style="list-style-type: none"> ■ Improvement in children's knowledge and attitudes, immediately and 6 mo after the intervention ■ According to the CRA, the cost per unit of benefit was \$113 per schoolchild who demonstrated improved knowledge and attitudes.
Allegri, 2022 ³³	Dementia-Friendly Intervention for Hospitalized Older Adults With Cognitive Impairments: Results of the Italian Dementia-Friendly Hospital Trial (IDENTITA)	Quantitative study (controlled and nonrandomized design)	Evaluate a dementia-friendly intervention for the hospital staff on the management of patients: <ul style="list-style-type: none"> ■ Functional status ■ Length of hospital stay ■ Level of cognitive function ■ Severity of BPSD 	Short training with 5 modules: <ul style="list-style-type: none"> ■ Overview of dementia ■ Drug appropriateness ■ Delirium and BPSD ■ Detection of pain ■ Relationship with patient and caregiver 	<ul style="list-style-type: none"> ■ Evolution of outcomes was assessed from admission to discharge ■ The intervention group demonstrated shorter hospital length of stay and a maintenance of the functional status at discharge compared with the control group
Weldingh, 2022 ⁴⁵	Impact of a Dementia-Friendly Program on Detection and Management of Patients With Cognitive Impairment and Delirium in Acute-Care Hospital Units: A Controlled Clinical Trial Design	Quantitative study (controlled and nonrandomized design)	Evaluate a dementia-friendly hospital program <ul style="list-style-type: none"> ■ Detection of CI or delirium ■ Pharmacologic treatment ■ 30-d rehospitalization ■ 30-d mortality ■ Institutionalization afterward 	Multicomponent intervention program: <ul style="list-style-type: none"> ■ educational program for health care professionals ■ screening of CI and delirium ■ Actions to prevent and manage delirium 	<ul style="list-style-type: none"> ■ Program did not show any significant effect on the detection of patients with CI or delirium ■ The number of patients with CI who were prescribed antipsychotic, hypnotic, or sedative medications was reduced by 24.5% ($P < .001$) ■ There were no differences in delirium detection, 30-d readmission, or 30-d mortality

BPSD, behavioral and psychological symptoms of dementia; CRA, cost-result analysis; CI, cognitive impairment; DFC, dementia-friendly community.

social or environment changes, making it difficult to define the characteristics that allow qualifying such programs dementia-friendly, as they involve a training/awareness element and clinical care management change.

In most publications, the characteristics of SSDL facilities such as the physical and social environment, the number and type of activities, the number of staff and their training, and implementation costs are absent or poorly detailed. SSDL facilities vary according to countries and local contexts (in terms of physical environment, number of residents per unit, population, organization, etc). This lack of information impedes comparability and generalization of results. However, the majority of studies described these facilities as follows: several houses or units similar to a home with a maximum of 8 residents per

unit where residents, carers, and a dedicated staff carry out various tasks including medical and personal care, organization of activities and domestic duty, and respecting residents' cultural and lifestyle preferences.^{34,37,48,58,59} This model of care showed encouraging results on residents and carers. The results are promising for both clinical (quality of care) and economic outcomes, even though medico-economic aspects deserve to be confirmed because of the limits of the methodological approach.^{50,51} Among the 13 publications from Ausserhofer's review and 7 selected in this review, the majority have been published in the Netherlands context (n = 14). The Netherlands has a long history in SSDL. The first small-scale living facility was initiated in 1986, and since 2009 the national government also strongly focused on small-scale residential care units for people

Table 3
Small-Scale, Homelike Facility (Studies)

First Author, Year	Design, Follow-up	Intervention vs Control (n)	Outcomes	Assessment Instrument	P Value	Main Results
Kok, 2016 ⁴⁶	Longitudinal, controlled 6 mo	- SSHL (67) - SCU (48)	BPSD mood, cognition, global Verbal memory Visual memory Language Praxis Visual perception Executive functioning	GDS-15 MMSE MMSE ADS RBMT BNT Test GIT	NS	No significant effect on the progression of cognitive decline even if subanalyses suggest differences in favor of the small-scale homelike SCU for different aspects of cognition
Kok, 2017 ⁴⁷	Quasi-experimental, longitudinal 6 mo	- SSHL (38) - SCU (20)	Rest-activity Wrist movement Activity level	Actiwatch and GIP	NS NS	No significant effect between the groups
Kok, 2018 ⁴⁸	Experimental, longitudinal, nonrandomized 8 mo	- SSHL (77) - SCU (68)	Quality of life BPSD Mood Neuropsychiatry	QUALIDEM GDS-15 GIP	NS	No significant difference, except for 1 aspect of the GIP scale, with fewer anxious behaviors for SSHL residents during follow-up
De Boer, 2017 ³⁴	Cross-sectional	- GCF (34) - SSHL (52) - n-SCU (29)	Quality of care Malnutrition Falling Pressure ulcers Psychotropic drug Physical restraints Quality of life Social engagement BPSD Agitation Neuropsychiatry Depression	Rate Rate Rate Rate Rate QoL-AD QUALIDEM RISE CMAI NPI CSDD NS	GCF vs n-SCU NS NS NS NS NS NS NS NS NS NS NS	The study showed comparable results in terms of quality of care. Quality of life was significantly higher for GCF residents than for n-SCUs (using the QoL-AD proxy scale). No differences between GCF and SSHL residents in QUALIDEM scale scores, except on 3 specific aspects (positive affect, social relationships, and occupation)
De Boer, 2017 ⁴⁹	Longitudinal, controlled 6 mo	- GCF (30) - SSHL (44) - n-SCU (26)	Activity Activity engagement Physical activity Social interaction	MEDLO-tool	GCF vs n-SCU .004 .014 ? .006	GCF residents were more involved in domestic activities and participated more in outdoor activities, and less involved in passive activities compared with n-SCUs. Green farm residents were significantly more physically active at the time of observation than SSHL residents; no other differences were shown.
Dyer, 2018 ⁵⁰	Cross-sectional	- SSHL (120) - n-SCU (421)	Quality of life Resources consumption	EQ-5D-5 L Hospital admission Emergency without admission Total cost	.008 .010 <.001 .030	After adjusting for individual and facility characteristics, living in a clustered domestic residential care facility was significantly associated with better quality of life. The intervention was also significantly associated with fewer hospital admissions.
Wimo, 1995 ⁵¹	Longitudinal, nonrandomized 12 mo Markov model 8 y	- SSHL (46) - n-SCU (23) - At home (39)	QALY	IWB (converted from the GDS)	NA	The study shows that the cost-utility ratio is lowest in the living-at-home group. According to a dynamic model (Markov), the total cost for the intervention group (GL) was lower than the costs for the n-SCU group (CI) ($P < .001$) but higher than the Control group at home (CH). The GL group produced the most QALYs, 3.27, compared with 2.99 in the CH group and 2.89 in the CI group. Compared with all the control groups, group living shown a negative cost per gained QALY.

ADS, Amsterdam Dementia Screening Test; BPSD, behavioral and psychological symptoms of dementia; BNT, Boston Naming Test; CH, control group for patients living at home; CI, control group for people institutionalized in n-SCU; CMAI, Cohen-Mansfield Agitation Inventory; CSDD, Cornell Scale for Depression in Dementia; ED, emergency department; EQ-5D-5 L, EuroQol Group-5 dimensions; GCF, green care farm; GDS, Geriatric Depression Scale; GIP, subscales of the Behavioral Observation Scale; GIT, Groningen Intelligence Test; GL, group living; IWB, Index of Well-Being; MEDLO-tool, Maastricht Electronic Daily Life Observation tool; MMSE, Mini-Mental State Examination; NPI, Neuropsychiatric Inventory; NA, not applicable; NS, nonsignificant; n-SCU, traditional nursing homes; QALYs, quality-adjusted life-years; QoL-AD, quality of life in Alzheimer's disease; QUALIDEM, quality of life for people with dementia; RBMT, Rivermead Behavioral Memory Test; RISE, Revised Index of Social Engagement (ISE) (a subscale of the RAIMDS, which reflects both social involvement and autonomy). SCU, special care unit; SSHL, small scale homelike facilities.

with dementia. Financial incentives were initiated to convert large-scale organized care to small-scale care in nursing homes. Therefore, it is not surprising that many papers on SSHL are from the Netherlands.

For the dementia-village model, scientific literature is almost nonexistent. The term *dementia (or Alzheimer) village* refers to a new approach based on person-centered care and optimization of the physical, social, and health environment, and encloses all the attributes

of the SSHL model. Most villages involve volunteers participating in leisure and entertainment activities. They have been designed as places open to the community and accessible to all. Also, a particularity of the French village is to have been designed as an experimental model integrating research into its institutional project. This model, at the crossroads of the other 2 concepts between community and setting, incorporates their key features. This approach seems to have similarities with SSHL facilities but goes beyond by sharing DFC objectives. It takes on the attributes of a DFC and offers a familiar environment open to the city and the outside public. Unfortunately, to date, no study has assessed the impact of such an innovative facility.

Depending on the context, DFIs and other initiatives involve a wide variety of partners and target different actions and population groups. The DFIs identified in this review are focused on enabling people with dementia to continue living at home (eg, DFC) and be cared for in mainstream services (eg, hospitals). Other initiatives focus on health care services that have reconfigured long-term care provision (eg, SSHL and village facilities). As a result, evaluation methods vary largely according to studies. Using common long-term outcomes like quality of life for local people with dementia is needed to assess the impact of all initiatives. Ambiguity exists in terms of both the definition and the key principles of each approach, which makes it difficult to share best practices or to compare outcomes across models. However, this work may contribute to clarify such notions. It may help to better understand what makes a village "dementia-friendly" and how an SSHL facility model is different from a village model.

This article has certain limitations. Our scoping review used a comprehensive search strategy to identify published literature that quantified the impact of interventions on older adults with ADRD. First, more in-depth research on the qualitative aspect of all concepts was not done. Research clarifying the conceptual underpinnings and relationships of the mechanisms by which interventions and strategies might have an impact would improve knowledge in this area. In addition, as the term "dementia-friendly" has been developed over the last 10 years, previous programs fulfilling similar principles and objectives but not referred to as "dementia-friendly" could not be selected by our search strategy because of the keywords used. Finally, other electronic databases or languages other than English would enrich this paper.

Conclusions and Implications

One of the major challenges of research in the field of AD and other dementia syndromes is to determine how to support persons suffering from these debilitating diseases and to preserve their dignity and quality of life, as well as that of their caregivers. Addressing this question implies conducting studies to objectively evaluate new models of care facility. Much remains to be done in order to better understand to what extent these models are different, complementary, or similar and to assess the added value of such innovative facilities and their benefits for individuals with dementia.

This review is the first to cover DFC, SSHL, and village facilities. A systematic characterization of these models is essential in order to clarify the concepts and harmonize their definitions. To be replicated, but also to allow other institutions benefiting from the lessons drawn from these innovative models, it is essential to develop research that makes it possible to collect and analyze data related to the physical, mental, and social health of residents. Another key challenge is to collect data on the costs and medico-social resources consumed, as these initiatives often rely on significant investments.

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Supplementary Table 1
PRISMA-ScR Checklist

Section	Item	PRISMA-ScR Checklist Item	Reported on Page #
Title			
Title	1	Identify the report as a scoping review.	Title Page
Abstract			
Structured summary	2	Provide a structured summary that includes (as applicable): background, objectives, eligibility criteria, sources of evidence, charting methods, results, and conclusions that relate to the review questions and objectives.	1
Introduction			
Rationale	3	Describe the rationale for the review in the context of what is already known. Explain why the review questions/objectives lend themselves to a scoping review approach.	4
Objectives	4	Provide an explicit statement of the questions and objectives being addressed with reference to their key elements (e.g., population or participants, concepts, and context) or other relevant key elements used to conceptualize the review questions and/or objectives.	4
Methods			
Protocol and registration	5	Indicate whether a review protocol exists; state if and where it can be accessed (e.g., a Web address); and if available, provide registration information, including the registration number.	N/A
Eligibility criteria	6	Specify characteristics of the sources of evidence used as eligibility criteria (e.g., years considered, language, and publication status), and provide a rationale.	6-7
Information sources*	7	Describe all information sources in the search (e.g., databases with dates of coverage and contact with authors to identify additional sources), as well as the date the most recent search was executed.	7
Search	8	Present the full electronic search strategy for at least 1 database, including any limits used, such that it could be repeated.	7
Selection of sources of evidence [†]	9	State the process for selecting sources of evidence (i.e., screening and eligibility) included in the scoping review.	5-6
Data charting process [‡]	10	Describe the methods of charting data from the included sources of evidence (e.g., calibrated forms or forms that have been tested by the team before their use, and whether data charting was done independently or in duplicate) and any processes for obtaining and confirming data from investigators.	7
Data items	11	List and define all variables for which data were sought and any assumptions and simplifications made.	7
Critical appraisal of individual sources of evidence [§]	12	If done, provide a rationale for conducting a critical appraisal of included sources of evidence; describe the methods used and how this information was used in any data synthesis (if appropriate).	N/A
Synthesis of results	13	Describe the methods of handling and summarizing the data that were charted.	8
Results			
Selection of sources of evidence	14	Give numbers of sources of evidence screened, assessed for eligibility, and included in the review, with reasons for exclusions at each stage, ideally using a flow diagram.	8 (Figure 1)
Characteristics of sources of evidence	15	For each source of evidence, present characteristics for which data were charted and provide the citations.	7
Critical appraisal within sources of evidence	16	If done, present data on critical appraisal of included sources of evidence (see item 12).	N/A
Results of individual sources of evidence	17	For each included source of evidence, present the relevant data that were charted that relate to the review questions and objectives.	8-15
Synthesis of results	18	Summarize and/or present the charting results as they relate to the review questions and objectives.	8
Discussion			
Summary of evidence	19	Summarize the main results (including an overview of concepts, themes, and types of evidence available), link to the review questions and objectives, and consider the relevance to key groups.	15-16
Limitations	20	Discuss the limitations of the scoping review process.	17-18
Conclusions	21	Provide a general interpretation of the results with respect to the review questions and objectives, as well as potential implications and/or next steps.	18
Funding			
Funding	22	Describe sources of funding for the included sources of evidence, as well as sources of funding for the scoping review. Describe the role of the funders of the scoping review.	19

JBI, Joanna Briggs Institute; PRISMA-ScR, Preferred Reporting Items for Systematic reviews and Meta-Analyses extension for Scoping Reviews. From: Tricco AC, Lillie E, Zarin W, O'Brien KK, Colquhoun H, Levac D, et al. PRISMA Extension for Scoping Reviews (PRISMAScR): Checklist and Explanation. *Ann Intern Med.* 2018; 169:467–473. <https://doi.org/10.7326/M18-0850>.

*Where *sources of evidence* (see second footnote) are compiled from, such as bibliographic databases, social media platforms, and Web sites.

[†]A more inclusive/heterogeneous term used to account for the different types of evidence or data sources (e.g., quantitative and/or qualitative research, expert opinion, and policy documents) that may be eligible in a scoping review as opposed to only studies. This is not to be confused with *information sources* (see first footnote).

[‡]The frameworks by Arksey and O'Malley (6) and Levac and colleagues (7) and the JBI guidance (4, 5) refer to the process of data extraction in a scoping review as data charting.

[§]The process of systematically examining research evidence to assess its validity, results, and relevance before using it to inform a decision. This term is used for items 12 and 19 instead of "risk of bias" (which is more applicable to systematic reviews of interventions) to include and acknowledge the various sources of evidence that may be used in a scoping review (e.g., quantitative and/or qualitative research, expert opinion, and policy document).