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# Citation

Groenendaal, M., Smaling, H. J. A., Achterberg, W. P., & Caljouw, M. A. A. (2022). Maintaining meaningful activities for persons with dementia during transitions of care: a systematic review. *Geriatric Nursing*, 44, 176-183. doi:10.1016/j.gerinurse.2022.01.017

Version: Publisher's Version

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# **Geriatric Nursing**

journal homepage: www.gnjournal.com



#### Featured Article

# Maintaining meaningful activities for persons with dementia during transitions of care: A systematic review



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#### ARTICLE INFO

Article history: Received 26 October 2021 Received in revised form 27 January 2022 Accepted 28 January 2022 Available online 19 February 2022

Keywords: Meaningful activities Transitions of care Dementia Systematic review Person-centered care

#### ABSTRACT

This systematic review summarizes the experiences with maintaining meaningful activities for persons with dementia during transitions of care, including related barriers and facilitators, and interventions and strategies. A systematic search was performed in eight databases. The methodological quality was assessed with the Mixed Methods Appraisal Tool.

Four articles were included; one describing the transition from home to hospital and vice versa, and three describing the transition from home to nursing home. The narrative synthesis revealed a decrease of meaningful activities after transition. Facilitators of and barriers to maintaining meaningful activities during transitions were related to the person with dementia, informal caregivers, healthcare professionals and organization of care, as well as the environment. Interventions and strategies focused on continuously adjusting meaningful activities to the person. To conclude, maintaining meaningful activities during transitions is an under-researched area. Several recommendations are provided for healthcare professionals and organizations.

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#### Introduction

Dementia is a complex disease with various types and different stages, and characterized by a decline of cognitive function, functional and social function during the disease trajectory. <sup>1,2</sup> Maintaining meaningful activities is challenging as abilities and interests change over time due to the disease progression. <sup>3,4</sup> Meaningful activities are defined as all activities or occupations that are significant or meaningful for the person and reflect someone's current and past interests, routines, habits, and roles, and are adjusted to someone's abilities. <sup>5,6</sup> These activities provide a sense of connectedness to self, others, and the environment, and they help maintain autonomy and identity in persons with dementia, <sup>7,8</sup> making it essential to maintain them as best as possible throughout the disease trajectory.

The disease trajectory of persons with dementia is characterized by various transitions between care settings. Examples of transitions are from home to nursing home and from home or nursing home to hospital. These transitions are often perceived as major life events for both the persons with dementia and their informal caregivers. Persons in transitions are vulnerable and at risk for a decrease of well-

being. <sup>11</sup> Examples of outcomes of successful transitions are wellbeing, role mastery, and good relationships. <sup>12</sup>

The American Geriatrics Society defines transitional care as "a set of actions designed to ensure the coordination and continuity of health care as patients transfer between different locations or different levels of care within the same location". Although there is an increase in attention for transitions of care, most transitional care programs do not focus on persons with dementia and meaningful activities. Effective transitional care is important to prevent loss of information about and enhance the quality of care for the person in question. If It is therefore vital to involve persons with dementia, informal caregivers, and healthcare professionals in the care transition process, especially as regards maintaining meaningful activities. In the search for person-centered dementia care and the potential of meaningful activities to enhance wellbeing. Quality of care, and quality of life of persons with dementia, this review investigates:

- What are the experiences of persons with dementia, informal caregivers, and healthcare professionals with maintaining meaningful activities of persons with dementia during transitions of care?
- Which barriers and facilitators can be identified regarding maintaining meaningful activities during transitions of care?

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• What strategies and interventions are being used to maintain meaningful activities during transitions of care?

#### **Material and methods**

#### Protocol and registration

This systematic review was registered in the PROSPERO International Prospective Register of Systematic Reviews registration number: CRD42020168325. The review was conducted and reported in accordance with the Preferred Reporting Items for Systematic Reviews and Meta-Analyses statement (PRISMA).<sup>19</sup>

# Search strategy and eligibility criteria

A search was carried out on December 16, 2019 and an updated search on May, 7, 2021 in the following databases: PubMed, MEDLINE (OVID), Embase, Emcare, Web of Science, COCHRANE Library, PsycINFO, and CINAHL. The search strategy included synonymous and related terms for "meaningful activity" and "dementia". The search terms "meaningful activities" and related terms were used in "phrases" in the search because this review specifically focused on activities that are meaningful. Grey literature was included by searching for conference abstracts and reports in the databases. If a conference abstract met the eligibility criteria, a search for the published articles was conducted. References and forward citations of all included papers were hand-searched for further papers meeting the inclusion criteria (snowball method). The full search strategy is provided in Appendix A.

Both intervention studies and descriptive studies with a qualitative, quantitative, and mixed-method design were included to optimally utilize all sources of evidence. Only research articles in English, German, French, and Dutch were included. No restriction regarding publication date was applied. Studies were included if the participants had a diagnosis of dementia or if the participants were professional or informal caregivers reflecting on the perspective of persons with dementia. In this review, meaningful activities are seen as activities that are meaningful to a person. Therefore, studies were excluded if activities were not specifically tailored or individualized to the interests and needs of the person with dementia, for example, general group activities or activities of daily living. Furthermore, the study must concern maintaining meaningful activities during transitions between care settings. All transitions between care settings were included.

#### Article selection, data extraction and data synthesis

The selection of the articles started after duplicates were removed. Two authors (MG and HS) independently screened the titles and abstracts based on the eligibility criteria. Consensus was reached in meetings comparing the arguments for inclusion and exclusion. If no consensus could be reached, a third researcher (MC) was consulted. Next, the full-text articles of the included abstracts were screened independently by the same two researchers. A third researcher was consulted in case of disagreement (MC).

A data extraction sheet was developed and pilot-tested on one article. Two authors (MG and HS) independently extracted the data from the articles. Consensus was reached in discussions during team meetings (MG, HS, MC).

Narrative synthesis of the data was chosen because of the heterogeneity of the included studies.<sup>20</sup> The narrative synthesis was established by comparing similarities and contrasts between the articles.<sup>21</sup> Tables were used to structure and categorize the findings based on the research questions.

#### Quality assessment

To evaluate the methodological quality of the studies, two researchers (MG and HS) independently filled in the Mixed Methods Appraisal Tool (MMAT) version 2018. Disagreements were solved by consensus-based discussions or by consulting a third researcher (MC). The MMAT consists of two screening questions for five types of research (i.e., qualitative research, randomized controlled research, non-randomized controlled research, observational descriptive research, and mixed methods research) and five specific sets of five quality criteria for each type of research. Ratings vary between 0% (no quality criteria met) and 100% (all quality criteria met), < 40% of the criteria met is considered low quality, 40-80% moderate quality and  $80\% \ge \text{high quality.}^{23}$ 

#### Results

#### Study selection and characteristics

A total of 1,074 publications were screened and assessed for eligibility. The first selection based on title and abstracts resulted in 1,064 publications being excluded. The remaining ten were screened full text, resulting in four eligible publications (Figure 1). Table 1 provides an overview of the included studies, which were published between 2014 and 2019. Two studies were conducted in the USA and two in Europe. The majority had a qualitative design (n=3) using interviews (n=2) and focus groups (n=1). The quantitative study (n=1) used observations and questionnaires in a pre-post design. Three studies considered the transition from home to nursing home and one study focused on the transition from home to hospital and hospital to home. The sample sizes per study ranged from 11 to 37. In total, 57 persons with dementia, 31 informal caregivers, and 26 healthcare professionals were included.

#### Quality assessment

Table 1 presents the total MMAT-score per study. A detailed rating for each study is presented in appendix B. Two qualitative studies scored 100%, <sup>24,25</sup> and one scored 80%. <sup>26</sup> The 80% score was due to the inability to answer the quality question regarding the coherence between qualitative data course, collection, analysis and interpretation because of missing information regarding the themes and subthemes in the result section. The included study in the "quantitative non-randomized studies" category<sup>27</sup> scored 0%, because of the small sample size and missing non-response rate, a lack of psychometric data of the instruments used, the large amount of missing data, variation in dose intervention, and no control of confounders.

# Experiences with maintaining meaningful activities

In general, participating in activities during transition was described as important for persons with dementia. Maintaining meaningful activities meant they could continue life as they were used to and stay active<sup>25,26</sup> it gave them a sense of identity<sup>24,25</sup> and purpose in life.<sup>25,26</sup> Also, meaningful activities improved quality of life and could prevent and reduced behavioral problems after transition.<sup>24,27</sup>

With its focus on maintaining activities during hospitalization, the TAP-H intervention (Tailored Activity Program for Hospitalized Patients with behavioral symptoms) reduced behavioral problems and increased engagement. Family expressed high satisfaction with this intervention. Also, staff readiness to work with the intervention improved, and the sessions and activities were integrated into routine care over time. After discharge from hospital, 59% of activities

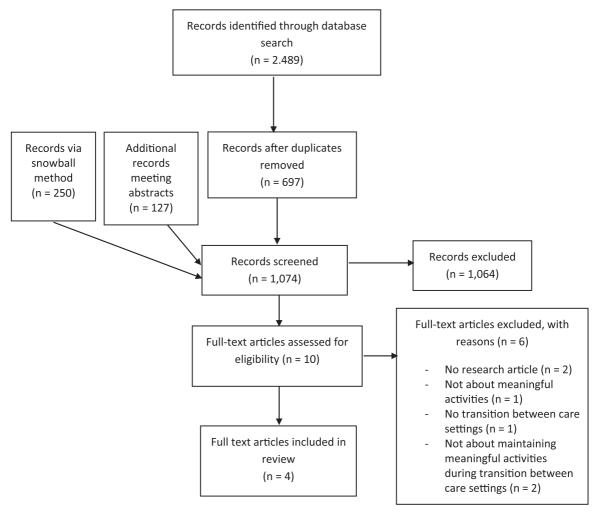


Figure 1. Flow Diagram

were continued. Which activities were maintained or reasons for discontinuation were not specified.<sup>27</sup>

Generally, the transition from home to nursing resulted in a decrease of a wide variety of activities, such as physical activities like walking inside and outdoors, <sup>24-26</sup> and activities related to lifestyle and habits. <sup>24,25</sup> However, in some cases healthcare professionals experienced an increase in activities for persons with dementia because the nursing home offered more structure and stimuli than at home. Offering new activities stimulated residents to participate. <sup>26</sup> Religious activities and social activities, such as visits from informal caregivers, were also considered meaningful during transitions. The former because they provided an opportunity to meet new people after a transition, the latter because it helped to sustain living patterns. <sup>24,26</sup>

Reasons for loss of meaningful activities were related to the disease, such as change of interests and cognitive and physical limitations, <sup>24,25</sup> to the impact of the change of environment, <sup>24,25</sup> and the new environment lacking possibilities to maintain activities. <sup>25,26</sup>

Facilitators of and barriers to maintaining meaningful activities

Table 2 presents an overview of the facilitators of and barriers to maintaining meaningful activities during the transition from home to nursing home. Facilitators and barriers could be related to the person with dementia, informal caregivers, healthcare professionals and organization of care, and the environment. The study about the

transition from hospital to home did not mention facilitators and barriers.  $^{27}$ 

Barriers related to the person with dementia included physical problems, such as vision, hearing, and movement impairments, <sup>24</sup>,26 and cognitive impairments, especially advanced dementia and neuropsychiatric symptoms such as apathy. <sup>24</sup> Matching activities with a person's abilities was seen as important; a mismatch could result in frustration, <sup>24</sup> while a match improved functioning. <sup>25</sup> A facilitator highlighted in all three studies was the importance of knowing what motivates the person with dementia to do a specific activity. For example, for one person bingo itself was meaningful, while for the other the social engagement during the game was important. <sup>26</sup> Knowledge about an individual's motivation for participating provided opportunities to further personalize the activity. <sup>24</sup> Also, offering both group and individual activities facilitated maintaining activities. <sup>24,26</sup>

A facilitator related to informal caregivers is their involvement in activities inside and outside the nursing home. Examples included visits to the person with dementia in the nursing home, being creative in finding activities, and helping their relative with transportation to outside activities. <sup>25,26</sup> Informal caregivers were an important source of information about the person with dementia for healthcare professionals. <sup>24,25</sup> Interestingly, while healthcare professionals experienced incomplete information from informal caregivers about individual meaningful activities, <sup>24</sup> the informal caregivers mentioned that there were not enough opportunities during transition to inform

**Table 1** Summary of studies included in review

First Author, year, country	Aim of study	Design	Method	Participants	Setting of the study -Type of transition	Main results of study	MMAT score	
Gitlin, 2016, USA	To examine the feasibility of the tailored activity program for hospitalized (TAP-H) patients with behavioral symptoms.	Quantitative, pre-post design	(Video) observations of behavioral and affective reactions of patients (baseline-during intervention). Questionnaires of engagement (baseline-during intervention) and readiness (start-finish) of HCP to use activities. Records of number, time, and use of activities. Questionnaires (satisfaction and use of activities at home) filled in by family after discharge.	20 persons with dementia, 20 informal caregivers, 4 HCP	22-bed Medical Behavioral Unit Transition from home to hospital and hospital to home	66 activity prescriptions tailored to interests and abilities were introduced to patients. During sessions, high patient engagement, increase in pleasure and positive gestures, and decrease in anxiety/anger, negative verbalizations, and negative nonverbal behaviors were observed. After discharge, 32 activities were prescribed, of which 19 (59%) were used at home. Staff improved in readiness to use tailored activities and families expressed high program satisfaction. The results support the feasibility of TAP-H.	0%	
Groenendaal, 2019, the Netherlands	To explore the experiences of HCP with maintaining meaningful activities of persons with dementia during transition from home to a nursing home.	Qualitative explorative design	Focus groups - Thematic analysis.	22 НСР	Nursing home Transition from home to nursing home	HCP felt that activities declined after moving to a nursing home. Three themes were identified: (1) Awareness of and attention for meaningful activities during transition (2) Personalizing meaningful activities, and (3) Organization of care. Various facilitators and barriers that influenced maintaining meaningful activities were identified.	100%	
Kuosa, 2015, Norway	To explore the change and continuity in the engagement in life of persons with advanced dementia.	Qualitative design	Life stories, interviews - The- matic narrative analysis	11 informal caregivers	Community setting (n=3) and nursing home (n=8) Transition from home to nursing home	Informal caregivers report slow and abrupt changes in every-day and physical activities, changes in the person's level of awareness, and changes in habits in new care settings and environments of their relative. Abrupt change from active to passive activity patterns were seen after moving to a nursing home. The person's background, motives, identity, lifestyle, and the contextuality of activities were important factors to determine the meaningfulness of an activity and for continuing activities. Informal caregivers found it important to tell their relative's lifestory and that the person with dementia could continue their life as much as possible.	100%	

Idule I (Continued)	First Author, year, Aim of study Design country	Tak, 2014, USA To describe types of current activity involvement and barriers to activities reported by persons with dementia.
	Method	31 short, open-ended interviews and 6 completed indepth interviews - Content analysis
	Participants	37 persons with dementia
	Setting of the study -Type of transition	Nursing home Transition from home to nursing home
	Main results of study	Persons with dementia missed past activities. They depend mostly on activities organized by the facility. Bingo, card games, and religious gatherings were the most attended activities. Entertainment, walking, and visits from family members were thought of as meaningful activities. Continuing previous activities was difficult due to lack of opportunities, physical limitations, environmental factors, and lack of assistance from HCP. A checklist was created for individualizing and evalu-
	MMAT score	%08

Note: TAP-H = TAP-H is an intervention to tailor activities to patients' interests and abilities, performed by an occupational therapist. It includes training of HCP and informal caregivers in the use of the activities; MMAT= Mixed Method Appraisal Tool; HCP= healthcare professionals the healthcare professionals about who the person with dementia is.<sup>25</sup> Both healthcare professionals and informal caregivers indicated that informal caregivers find it difficult to identify and maintain meaningful activities.<sup>24,25</sup>

Facilitators of maintaining meaningful activities related to health-care professionals and organization of care were interdisciplinary collaboration between healthcare professionals before and after the transition, continuity in team members, and access to care plans with specific goals.<sup>24</sup> A person-centered care attitude, that is knowing the person<sup>25</sup> and stimulation<sup>24,25</sup> and offering help to attend activities,<sup>26</sup> facilitated maintaining meaningful activities. Lack of time was the most cited barrier.<sup>24-26</sup>

Barriers to maintaining meaningful activities related to the environment were a lack of possibilities to participate in activities due to a lack of materials and a suitable accommodation<sup>25,26</sup> not being able to personalize the environment to one's preferences,<sup>25</sup> and missing personal items due to the transition.<sup>24</sup> Another barrier in relation to the environment was that after transition, the activity has to be performed in an unknown and different environment.<sup>24,25</sup> The performance of activities in a different environment can change the meaningfulness of an activity.<sup>24,25</sup> For example, gardening in a communal garden may no longer be meaningful because it is not one's own garden.<sup>25</sup>

### Interventions and strategies

Only one included study used a specific intervention (TAP-H) for maintaining meaningful activities. Although three of the included studies were not primarily focused on interventions or strategies, several strategies were mentioned. These strategies focused on assessment and implementation, and education of healthcare professionals.

Assessments are the systematic collection of information about a person or situation. The goal is to gather information about a person's abilities, preferences and needs to be able to maintain and offer meaningful activities in the new care setting.<sup>24-27</sup> Several strategies were suggested, such as a checklist for individualizing and evaluating activities in the nursing home,<sup>26</sup> obtaining the life story of the person with dementia, 24,25 interviews with the persons with dementia and informal caregivers, <sup>25,27</sup> observations, <sup>24,27</sup> and questionnaires about the persons' life and preferences. <sup>24,25</sup> Continuous evaluation and adjustment of meaningful activities is necessary due to changing individual needs.<sup>26,27</sup> information was gathered about cognitive functions, physical abilities and social factors, <sup>26,27</sup> and about the personal interests and motivation of the person with dementia for activities, <sup>26,27</sup> the person's roles in life<sup>24,27</sup> as well as preferences about frequency and timing of the activities.<sup>26</sup> Also, information about the living environment before<sup>24</sup> and after transition,<sup>27</sup> and support needed to attend<sup>26</sup> and during activities was collected.<sup>27</sup>

Strategies to implement meaningful activities were writing down activities in a care plan, setting goals for meaningful activities, <sup>24,27</sup> and incorporating them in daily care routines. <sup>24</sup> Another proposed strategy was to integrate an assessment of meaningful activities in procedures during the transition. <sup>24</sup>

Strategies related to education for informal caregivers were focused on providing information and education about the importance of meaningful activities<sup>24</sup> and continuation of activities after transition.<sup>26</sup> Educating and coaching healthcare professionals about meaningful activities was another strategy.<sup>24,27</sup> For example, in the TAP-H intervention the occupational therapist coached a recreational therapist and certified nurse on how to perform the activities during and after an intervention session.<sup>27</sup>

#### Discussion

This study investigated the experiences, barriers and facilitators, and interventions and strategies regarding maintaining meaningful

**Table 2**Facilitators for and barriers to maintaining meaningful activities during transitions of care

Facilitators	Barriers								
Related to person with dementia									
Adjusting activities to abilities of person with dementia <sup>24-26</sup>	Limitations in physical abilities to participate in meaningful activities 24,26								
Offering meaningful activities matching the interests of the persons with dementia <sup>24-26</sup>	Limitations in cognitive function <sup>24</sup>								
Motivation for the meaningful activity gives possibility to adjust activity to the person with dementia <sup>24-26</sup>	Frequencies and timing of activities not matching preferences and needs of persons with dementia <sup>25,26</sup>								
Offering individual meaningful activities related to habits <sup>24,25</sup>	Activities not matching individual interests <sup>25,26</sup>								
Offering group (facility) and individualized (self-directed) activities <sup>24,26</sup>									
Related to informal caregivers									
Using creativity to help persons with dementia maintain meaningful activities 25	Lack of knowledge of informal caregivers <sup>24,25</sup>								
Informal caregivers' knowledge about the life of the person with dementia <sup>24,25</sup>	Incomplete information from informal caregivers about meaningful activities of the person with dementia <sup>24</sup>								
Involvement of informal caregivers in the life of the persons with dementia <sup>24-26</sup>									
Related to HCP and organization of care									
Knowing the person with dementia <sup>25</sup>	Lack of knowledge about the person with dementia, meaningful activities, and the roles and habits of the person with dementia <sup>24,25</sup>								
Stimulating persons with dementia <sup>24,25</sup>	Offering no help to continue meaningful activities <sup>25, 26</sup>								
Offering help to attend activities <sup>26</sup>	Not offering the possibility to informal caregiver to tell the story of the person with dementia <sup>25</sup>								
Person-centered care attitude <sup>24</sup>	Lack of time <sup>24-26</sup>								
Interdisciplinary collaboration between HCP during transition <sup>24</sup>	Task-oriented attitude <sup>24</sup>								
Access to care plan for all involved in providing activities <sup>24</sup>	Few exchanges between HCP from own and other organisations <sup>24</sup>								
Permanent team <sup>24</sup>	Non-specific goals for meaningful activities <sup>24</sup>								
	Shortage of staff <sup>20</sup>								
Related to environment									
Environment provides the possibility to perform activities <sup>24</sup>	Lack of possibilities in environment to participate in previous activities <sup>25,26</sup>								
	Perform meaningful activities in a different and unknown environment <sup>24,25</sup>								
	Impossibility to personalize environment <sup>24,25</sup>								

HCP= healthcare professional

activities of persons with dementia during transitions of care. Persons with dementia, informal caregivers, and healthcare professionals experienced maintaining meaningful activities as important, especially social engagement. Facilitators of and barriers to maintaining meaningful activities were related to the persons with dementia (personal interests, preferences, abilities, and needs), informal caregivers (involvement, and knowledge about meaningful activities and the person with dementia), healthcare professionals and organization of care (person-centered care attitude, collaboration, time, and knowledge), and environment (change and personalization). Strategies focused on continuous matching of activities to individual interests, abilities, preferences, and needs, the implementation of meaningful activities in daily routine care, and educating healthcare professionals and informal caregivers.

In general, the participants of the included studies experienced a decline of activities after transition, especially related to daily life and physical activities. The results of our review are in line with a study on meaningful activities for persons without dementia after transition to a long-term care facility. Other studies emphasized the importance of preventing the loss of meaningful activities, relationships, and maintaining old habits and routines during transition to long-term care because they provide a sense of identity and autonomy, and help the person adjust to life in a nursing home. 19-31 It is therefore vital to develop transitional care focused on maintaining meaningful activities for persons with dementia.

Working in partnership with informal caregivers and persons with dementia is crucial for good transitional care.<sup>32</sup> Our review showed a probable mismatch in needs between healthcare professionals and informal caregivers related to collecting information about the meaningful activities of the person with dementia. This indicates that improvements can be made in the collaboration between healthcare professionals, informal caregivers, and persons with dementia.

A limited number of strategies and one intervention were found to maintain meaningful activities during transitions of care. Most programs and interventions to maintain meaningful activities focus on providing meaningful activities in a particular setting, such as the

long-term setting and the community setting.<sup>33,34</sup> Future studies should focus on developing interventions for persons with dementia and their informal caregivers to maintain meaningful activities during transitions of care. When developing such interventions, an important part of it should include educating healthcare professionals and informal caregivers about the importance of maintaining meaningful activities during transition, and on strategies how to practically accomplish that. One example would be to use the tools mentioned in our review, such as obtaining information about the person with a life story<sup>25</sup> and collect detailed information about preferences for activities using a checklist.<sup>26</sup> To educate informal caregivers and healthcare professionals, an occupational or recreational therapist could coach them on how to offer and maintain meaningful activities during transition.<sup>27</sup> Furthermore, more attention is needed to develop effective interventions strategies that included the whole transitions process, so before, mid, and after transition and not just on of one of those three phases.

# Strengths and limitations

A key strength of the review is the narrative synthesis that was used. This method made it possible to optimally analyze and describe the results of the limited number of heterogenous studies found. Two types of transitions, the transition from home to nursing home and between home and hospital, were described in the included studies, limiting generalizability to other types of transitions. Another strength of the study is the thorough systematic search that was performed. Although the limited number of included studies may be due to the strict inclusion criteria, it also shows there is much knowledge to be gained on how to best maintain meaningful activities for persons with dementia during transitions of care. Three of the four included studies were of high quality. Only the study concerning the transition between home and hospital was of low quality. Therefore, the findings of our review provide valuable information for healthcare professionals, organizations, and policymakers, especially for the transition from home to nursing home. For example, the barriers and

facilitators found in our review can be used to develop transitional care strategies to maintain meaningful activities.

#### **Conclusions**

Maintaining meaningful activities during transitions is an underresearched area. This review highlights the need for transitional care that focuses on maintaining meaningful activities for persons with dementia during transitions to enhance wellbeing, quality of life, and person-centered care for persons with dementia and their informal caregivers. Healthcare professionals providing transitional care should apply a person-centered care approach to help maintain meaningful activities for persons living with dementia. Healthcare professionals can achieve this by continuously evaluating whether activities match the individual interests, abilities, preferences, and needs during transitions by systematically collecting information about the person and the situation, such as obtaining their life story.

Furthermore, interdisciplinary collaboration between healthcare professionals in the different care settings, and involving informal caregivers in all phases of the transition is advised. This could be achieved by effectively sharing information and optimize communication between organizations, teams, and between healthcare professionals and informal caregivers, elements which are essential for interdisciplinary collaboration. The practical example would be to not only exchange medical information about a patient during transitions of care, but also share information about the person (e.g., what makes them tick, their interests, psychosocial needs, meaningful activities, and wishes). More general recommendations for healthcare organizations are to prioritize meaningful activities in transitional care, educate healthcare professionals about meaningful activities, and create a dementia-friendly physical environment that stimulates engaging in meaningful activities.

# Source of funding

This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

# **Conflicts of interest**

There are no conflicts of interests.

# Appendix A

Maintaining meaningful activities for persons with dementia during transitions of care: A systematic review.

Search strategy PubMed

((("meaningful activities"[tw] OR "meaningful activity"[tw] OR "meaningful life activities"[tw] OR "meaningful life activity"[tw] OR "substantial activities"[tw] OR "substantial activity"[tw] OR "important activities"[tw] OR "important activity"[tw] OR "significant activities"[tw] OR "significant activity"[tw] OR "meaningful occupation"[tw] OR "meaningful occupations"[tw] OR "important occupation"[tw] OR "important occupations"[tw] OR "meaningful engagement"[tw] OR "activity engagement"[tw] OR "activities engagement"[tw] OR "involved activities"[tw] OR "involved activity"[tw] OR "meaningful leisure"[tw] OR "tailored activities"[tw] OR "tailored activity"[tw] OR "purposeful activities"[tw] OR "purposeful activity"[tw] OR "individual activities"[tw] OR "individual activity"[tw] OR "personally tailored activities"[tw] OR "personally tailored activity"[tw] OR "individually tailored activities"[tw] OR "individually tailored activity"[tw] OR "person-centred activity"[tw] OR "personcentred activities"[tw] OR "individualized activity"[tw] OR "individualised activity"[tw] OR "individualized activities"[tw] OR "individualised activities"[tw] OR "meaningful social activities"[tw] OR "meaningful social activity"[tw] OR "meaningful social engagement"[tw] OR "meaningful social engagements"[tw] OR "meaningful social interaction"[tw] OR "meaningful social interactions"[tw] OR "meaningful social participation"[tw] OR "meaningful social participations"[tw] OR "meaningful social participation"[tw] OR "meaningful social participations"[tw] OR "Involvement in activities"[tw] OR "Involvement in activity"[tw] OR "Daily occupation"[tw] OR "Daily occupations"[tw] OR "Social occupation"[tw] OR "Social occupations"[tw]) AND ("Dementia"[mesh:noexp] OR "dementia"[tw] OR dement\*[tw] OR Alzheimer\*[tw] OR "Alzheimer Disease"[mesh] OR "Dementia, Vascular"[mesh] OR "Frontotemporal Lobar Degeneration"[mesh] OR "Lewy Body Disease"[mesh] OR "Frontotemporal Lobar Degeneration"[tw] OR "Lewy Body Disease"[tw])) OR (("meaningful"[ti] OR meaningful\*[ti]) AND ("activities"[ti] OR "activity"[ti]) ("Dementia"[mesh:noexp] OR "dementia"[tw] OR dement\*[tw] OR Alzheimer\*[tw] OR "Alzheimer Disease"[mesh] OR "Dementia, Vascular"[mesh] OR "Frontotemporal Lobar Degeneration"[mesh] OR "Lewy Body Disease"[mesh] OR "Frontotemporal Lobar Degeneration"[tw] OR "Lewy Body Disease"[tw])))

#### Appendix B

Maintaining meaningful activities for persons with dementia during transitions of care: A systematic review.

References

Hong Q, Pluye P, Fàbregues S, Bartlett G, Boardman F, Cargo M, et al. Mixed Methods Appraisal Tool (MMAT), version 2018. Userguide. 2018.

Table A

**Table A**Mixed Methods Appraisal Tool<sup>1</sup> rating per study

	Criteria from the Mixed Methods Appraisal Tool																								
	Qualitative studies			Ç	Quantitative randomized controlled studies				Quantitative non-randomized studies				Quantitative descriptive studies					Mixed methods studies							
	1.1	1.2	1.3	1.4	1.5	2.1	2.2	2.3	2.4	2.5	3.1	3.2	3.3	3.4	3.5	4.1	4.2	4.3	4.4	4.5	5.1	5.2	5.3	5.4	5.5
Gitlin, 2016											-	-	0	0	0										
Groenendaal, 2019	1	1	1	1	1																				
Kuosa, 2015	1	1	1	1	1																				
Tak, 2014	1	1	1	1	-																				

Note: 1 = Yes, 0 = No, - = can't tell

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