



INTERVENTIONS FOR PERSON WITH DEMENTIA: A SCOPING REVIEW

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ABSTRACT

Dementia is a progressive neurodegenerative condition that significantly affects a person's cognitive function, behavior, and quality of life. The increasing global prevalence of dementia poses significant challenges for healthcare systems, families, and communities. Pharmacological therapies have shown limited effectiveness and are often associated with side effects, so non-pharmacological and multidimensional interventions are gaining increasing attention as more comprehensive alternative approaches. The aim of this study is to identify and map the scientific evidence regarding various interventions applied to people with dementia and to provide a conceptual basis for the development of clinical practice and further research to improve the quality of care and quality of life of individuals with dementia. Literature search was conducted in electronic databases such as PubMed, and Spingerlink using keywords related to "dementia," and "intervention" for the period 2015-2025. Studies meeting the inclusion criteria were analyzed descriptively and categorized by intervention type: pharmacological, non-pharmacological, psychosocial, and alternative therapies. The 14.403 articles found, 18 studies met the inclusion criteria. Non-pharmacological interventions, including interventions for person with dementia in the form of cognitive stimulation, music interventions, psychosocial interventions, reminiscence therapy, aromatherapy, physical activity and exercise, and animal therapy that have been proven to person with dementia and have also been shown to strengthen social interactions and reduce caregiver stress. Pharmacological interventions have shown more limited results and focus on symptom management rather than improving overall quality of life. Interventions for persons with dementia are diverse and predominantly non-pharmacological, with growing evidence supporting their potential benefits across cognitive, psychological, and quality-of-life outcomes.

Keywords: dementia; intervention; non-pharmacological; quality of life

How to cite (in APA style)

Alaidin, M., & Suyanto, S. (2026). Interventions for Person with Dementia: A Scoping Review. *Indonesian Journal of Global Health Research*, 8(1), 1177–1190. <https://doi.org/10.37287/ijghr.v8i1.1594>.

INTRODUCTION

Dementia is a progressive syndrome characterized by a decline in cognitive function, affecting memory, thinking, and the ability to perform daily activities in older adults, making it a major global health challenge (Hao & Chen, 2025). In 2021, approximately 57 million people worldwide were living with dementia, with this number projected to reach 131.5 million by 2050 due to population aging, with Alzheimer's disease accounting for 80% of cases (Javaid et al., 2022). Dementia is characterized by a progressive decline in cognitive functions including memory, language, orientation, thinking skills, and behavioral and psychological disturbances known as Behavioral and Psychological Symptoms of Dementia (BPSD) (Petrovsky et al., 2015). These symptoms contribute significantly to a decreased quality of life for individuals with dementia, increased dependency, and high levels of stress and fatigue in caregivers (Veitch et al., 2022).

Pharmacological approaches to dementia management have limitations, both in terms of long-term effectiveness and potential side effects, particularly in the elderly population (Cooper et al., 2012). Furthermore, pharmacological therapies tend to focus more on controlling cognitive symptoms and BPSD, without comprehensively improving patients' psychosocial aspects and quality of life (Jing et al., 2016). Therefore, global attention is increasingly directed towards the development and implementation of non-pharmacological interventions that are holistic and person-centered (Luxton et al., 2026). Previous research has shown that various approaches, especially non pharmacological interventions like cognitive stimulation Reminiscence therapy, music therapy, physical activity, and

environmental modification have the potential to improve the Quality Of Life of older with dementia by enhancing cognitive, social, and emotional functioning (Vu et al., 2024). Occupational therapy also demonstrated effectiveness in increasing engagement in meaningful activities and modifying the environment to support a better quality of life in older adults with dementia (Portillo, Cristian Uceda, 2024). However, the literature on interventions for individuals with dementia shows a high degree of diversity in study design, type of intervention, duration, implementation context, and outcomes measured. This variability often makes it difficult for practitioners and policymakers to identify the most effective and relevant interventions for implementation in various healthcare settings (Surangi, 2023). Furthermore, most existing systematic reviews focus on a single type of intervention, thus not providing a comprehensive overview of the spectrum of available interventions (Luxton et al., 2026).

Despite the extensive research on various interventions, no scoping review has comprehensively mapped and analyzed all available empirical evidence on interventions to improve the quality of life of older adults with dementia including the characteristics, mechanisms, and impacts of various interventions studied globally. This is crucial for closing scientific gaps, identifying understudied research areas, and guiding evidence-based policy and clinical practice (Akintola et al., 2019). Therefore, this scoping review aims to systematically map the various interventions that have been implemented for individuals with dementia, evaluate the main objectives and outcomes of each intervention, and identify areas requiring further research. The results of this review are expected to provide a scientific basis for the development of evidence-based nursing practice and health services, as well as support the formulation of policies oriented towards improving the quality of life for individuals with dementia.

METHOD

PRISMA Flow Chart for the last 10 years 2015 to 2025

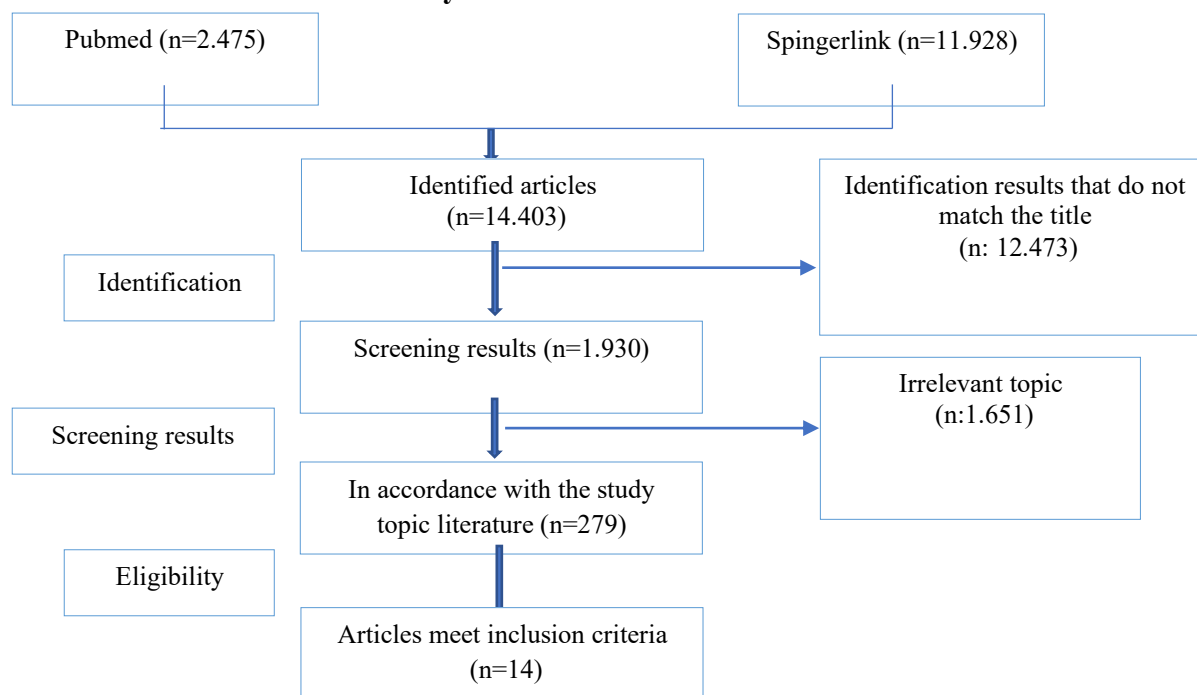


Figure 1. PRISMA-ScR diagram of search and selection of review literature

This article uses the framework *scoping review*. In this method the steps in *scoping review* It uses a framework with stages: (1) Identifying Research Questions: Clearly articulating research questions that will guide the scope of investigation. Consider the purpose of the scoping study with the research questions. (2) Identifying Relevant Studies: Conduct a comprehensive search to identify relevant studies. This may involve searching multiple databases and other sources to ensure broad coverage of the investigation (Levac et al., 2010) (3) Study Selection: Use an iterative team

approach to select studies and extract data. This may involve multiple reviewers independently reviewing the abstract and full article for inclusion. (4) Mapping Data: Summarize and present mapping results related to the review questions and objectives. (5) Consultation: Include consultation as a required component in the scoping study methodology. Define the purpose of the consultation clearly. The framework for a scope review is not fixed and can be adjusted based on the specific needs of the review. Although the framework (Arksey & O'Malley, 2005) is commonly used, there are ongoing discussions and methodological refinements (Daudt et al., 2013).

RESULT

Table 2.
Results of scoping review Interventions for Person With Dementia

No.	Title, Name and Year	Objective	Method	Results
1.	Review of the effect of music interventions on symptoms of anxiety and depression in older adults with mild dementia (Petrovsky et al., 2015)	To assess the effectiveness of music interventions in reducing symptoms of anxiety and depression in elderly people with mild dementia and to identify the most effective forms of intervention.	Literature review of RCTs, quasi-experimental, and systematic review studies involving older adults with mild dementia	Music interventions showed significant reductions in anxiety and depression symptoms, particularly in personalized music interventions and active music therapy, with more optimal effects in early-stage dementia.
2.	Exercise and Quality of Life in Dementia: A Systematic Review and Meta-Analysis of Randomized Controlled Trials (Ojagbemi & Akin-ojagbemi, 2017)	To examine the evidence on whether exercise interventions improve quality of life in people with dementia.	Systematic review of RCTs reporting QoL outcome	Evidence suggests some studies show benefits on function/mood, but consistent effects on quality of life are still heterogeneous; more uniform quality of life outcomes are needed.
3.	Cognitive stimulation therapy (CST) for people with dementia in practice: An observational study (Streater et al., 2016)	Cognitive Stimulation Therapy (CST) when applied in real-world settings for people with mild to moderate dementia, and specifically its impact on cognitive function and quality of life,	Research design: Longitudinal observational study for ±1 year comparing pre-intervention and post-intervention scores.	Research shows significant improvements in cognitive function and quality of life after CST, comparable to results from previous controlled trials. CST can be implemented effectively in routine care settings, although there is variation in how it is implemented in the field.
4.	Group music interventions for dementia-associated anxiety : A systematic review (Ing-randolph et al., 2015)	Assessing the effectiveness of a group music intervention in reducing anxiety in individuals with dementia.	Systematic review of RCTs and quasi-experimental studies evaluating group music interventions in individuals with dementia	Group music interventions have shown significant reductions in anxiety, especially when conducted in a structured, routine manner and involving the active participation of participants.
5.	The impact of individual Cognitive Stimulation Therapy (iCST) on cognition, quality of life, caregiver health, and family relationships in dementia: A randomised controlled trial (Orrell et al., 2017)	Testing the iCST (dyadic home-based CST) program on cognition & quality of life	Large RCT (people with dementia + carers).	iCST did not consistently improve the quality of life of people with dementia, but there were benefits on some aspects of the caregiver-patient relationship and use of services.
6.	Impact of person-centred care training and person-centred activities on QoL (WHELD) (Ballard et al., 2018)	To assess whether the WHELD intervention with person-centered care training plus antipsychotic activities	Cluster Randomized controlled trial in nursing home residents	Interventions to improve the quality of life of nursing home residents and reduce agitation with clinical evidence and cost-

No.	Title, Name and Year	Objective	Method	Results
		and review improves quality of life and reduces agitation.		effectiveness in implementing the intervention
7.	The Effects of Music Therapy-Singing Group on Quality of Life and Affect of Persons With Dementia: A Randomized Controlled Trial (Cho, 2018)	Comparing the effects of singing, music, listening groups with controls on the quality of life and mood of dementia patients.	Randomized controlled trial in a residential aged care facility.	Singing group (active music) can improve the quality of life and affect better than control music, while listening is less effective than singing.
8.	Music-based therapeutic interventions for people with dementia (Review) (Jt et al., 2018)	Assessing RCT evidence for all music-based interventions on quality of life, mood and cognition.	Systematic review of (Cochrane) RCTs.	Low to moderate quality evidence suggests that music may improve mood/depression and sometimes quality of life, but results are heterogeneous and long-term outcomes are uncertain.
9.	A systematic review and meta-analysis on the effect of reminiscence therapy for people with dementia (Park et al., 2019)	Assessing the effects of reminiscence therapy on quality of life and behavior and psychology of dementia	Systematic review/meta-analysis of RCTs.	Reminiscence therapy has been linked to improved quality of life and improved behavior and psychology in dementia patients in several studies; the effects were stronger for the RT group.
10.	Effects of animal-assisted therapy on patients with dementia: A systematic review and meta-analysis of randomized controlled trials (Nm et al., 2019)	Animal-assisted therapy for dementia patients on quality of life	Meta-analysis of RCTs (n studies up to 2019).	Animal-assisted therapy has shown some improvements in quality of life, mood and social interactions in several trials with large study heterogeneity.
11.	A Randomised Controlled Trial of An Exercise Intervention Promoting Activity, Independence And Stability In Older Adults With Mild Cognitive Impairment And Early Dementia (PrAISED) - A Protocol (Bajwa et al., 2019)	Testing activity interventions to prevent falls and improve quality of life function in dementia.	Feasibility Randomized Controlled Trial is used for larger Randomized Controlled Trials.	The intervention carried out had an impact on improving the quality of life function in subgroups that require a larger Randomized Controlled Trial.
12.	Aromatherapy for dementia (Review) (El et al., 2020)	Assessing the effects of aromatherapy on agitation, mood, and quality of life.	Systematic review of RCTs (various essential oils; institutional settings).	Some studies have shown reduced agitation and improved some aspects of well-being; the quality of the evidence is limited and heterogeneous.
13.	The effects of bright light treatment on affective symptoms in people with dementia: a 24-week cluster randomized controlled trial (Kolberg et al., 2021)	Assessing the effects of bright light therapy on sleep, agitation, depression and quality of life	24 week cluster randomized controlled trial.	Bright light therapy improves sleep quality and some aspects of mood; effects on quality of Life vary depending on the frequency/duration protocol.
14.	Effectiveness of cognitive stimulation therapy (CST) on cognition, quality of life and neuropsychiatric symptoms for patients living with dementia: A meta-analysis (X. Chen, 2022)	Assessing the effects of cognitive stimulation therapy on knowledge and quality of life	Meta-analysis of CST trials.	CST consistently improves cognition and quality of life in people with mild-to-moderate dementia and is recommended as a psychosocial intervention.

No.	Title, Name and Year	Objective	Method	Results
15.	Comparative efficacy of various art therapies for patients with dementia: A network meta-analysis of randomized controlled trials (Liu et al., 2023)	Assessing the effects of various arts interventions (calligraphy, horticulture, painting) on cognition, agitation and quality of life.	Network meta-analysis dari trials/art-based studies.	Some forms of art therapy (calligraphy, horticulture) have shown benefits on QoL and symptoms; context-specific recommendations
16.	Exercise effects on neuropsychiatric symptoms and quality of life in mild cognitive impairment : a systematic review and meta-analysis (L. Chen & Kim, 2024)	To examine the effects of exercise on NPS (depression, sleep) and quality of life in dementia.	Systematic review /meta-analysis (RCTs).	Studies have shown improvements in quality of life after exercise interventions, although two studies were negative; meta-analysis was not performed due to inconsistencies in measurement tools. Multicomponent exercise (ME) and aerobic exercise (AE) interventions also positively contribute to overall quality of life.
17.	Effects of an art-based intervention in older adults with dementia: a randomized controlled trial (Zhuo et al., 2025)	Testing a structured arts program for communication and quality of life	RCTs & syntheses (various art interventions).	Several RCTs reported improvements in quality of life and communication; calligraphy/horticulture frequently emerged as effective interventions.
18.	Supportive Interventions Involving Family Carers of Patients With Delirium Superimposed on Dementia in Hospital: A Scoping Review (Ashton-gough et al., 2025)	To map and review the evidence on a ward-based approach involving family carers and healthcare staff working together to prevent and manage delirium occurring in older patients with dementia admitted to hospital (delirium superimposed on dementia/DSD).	Scoping review with JBI and Arksey & O'Malley guidelines; search in six databases (CINAHL, MEDLINE, EMBASE, Cochrane, PsycINFO, PubMed)	There were no significant differences in SWBS scores and two subscales (RWB and EWB) between the intervention group and the control group at baseline (p > .05). After the intervention, there were significant differences in SWB (p ¼ .001), RWB (p ¼ .013) and EWB (p ¼ .001) in the two groups.

RESULT

Based on the results of the article search conducted using the PRISMA method with data sourced from Pubmed and Spingerlink, the total obtained was 14.403. Researchers filtered the data using the period 2015 to 2025, by selecting English-language articles. Referring to the criteria and suitability of the literature to the research topic, 18 articles were found that met the predetermined inclusion criteria. Based on the filtering results, there are 6 (six) interventions for person with dementia in the form of cognitive stimulation, music interventions, psychosocial interventions, reminiscence therapy, aromatherapy, physical activity and exercise, and animal therapy that have been proven to person with dementia. These interventions have been proven important in overcoming difficulties in quality of life and improving well-being that can accelerate the recovery of mental and social health cognitive stimulation, music interventions, psychosocial interventions, reminiscence therapy, aromatherapy, physical activity and exercise, and animal therapy

DISCUSSION

Interventions for person with dementia primarily focus on non-pharmacological approaches due to the limited efficacy and potential side effects of pharmacological treatments in comprehensively addressing QoL (Luxton et al., 2026). These interventions often target various aspects of well-being, including cognitive function, mood, social interaction, and daily living skills, and extend to

supporting caregivers, which indirectly benefits the person with dementia (Khallaf et al., 2025) The overarching goal is to maintain functional abilities, alleviate distressing symptoms, and foster engagement in meaningful activities (Behfar et al., 2023).

Theme I: Intervensi stimulasi kognitif (Cognitive Stimulation Interventions/CBI)

Cognitive stimulation interventions are one of the most widely recommended non-pharmacological approaches in dementia management. The primary focus of these interventions is providing structured mental stimulation through cognitive and social activities, such as group discussions, cognitive games, reality orientation, and activities involving memory and language. Numerous studies have shown that cognitive stimulation not only impacts cognitive function but also plays a significant role in improving the quality of life of individuals with dementia (L. H. Chen et al., 2025).

Quality of life in dementia is influenced by various factors, including cognitive function, emotional state, social interactions, and a sense of meaning in daily life. Cognitive stimulation works holistically, engaging both cognitive and social aspects simultaneously. A multicenter randomized controlled trial showed that individual cognitive stimulation therapy Home-based iCST with caregiver involvement has a positive impact on quality of life and family relationships, although the effects on cognition are moderate (Streater et al., 2016). These findings underscore the importance of social context in improving the quality of life for people with dementia

In addition to individual approaches, group cognitive stimulation has also been shown to be effective. Research reports that cognitive stimulation therapy (CST) provides significant improvements in quality of life compared to standard care, especially in mild to moderate dementia. These positive effects are associated with increased social interaction, a sense of engagement, and consistent activity structure, which significantly influence perceptions of subjective well-being (X. Chen, 2022). Furthermore, a critical review confirms that improvements in quality of life through cognitive stimulation do not always correspond to major cognitive changes. This means that even if cognitive decline persists, individuals with dementia can still experience improvements in emotional well-being and life satisfaction through active participation in cognitively stimulating activities (Chao & Nicpon, 2020). This is an important finding in the context of quality-of-life-oriented dementia care. Cognitive stimulation can also help improve memory, attention, and executive function, thereby improving the quality of life of affected individuals (L. H. Chen et al., 2025).

Cognitive stimulation interventions can be delivered through individual or group approaches. Group-based cognitive stimulation provides a supportive social environment and encourages interaction, engagement, and collaborative learning among participants. Previous research has shown that individuals participating in group cognitive stimulation demonstrate significant improvements in cognitive function compared to those in control groups. Furthermore, these interventions can be tailored to individual cognitive abilities and needs, thereby increasing their effectiveness and optimizing cognitive outcomes. (Gómez-Soria et al., 2023). Cognitive stimulation interventions have been implemented in various populations, including older adults, individuals with mental disorders, and post-stroke patients. Previous research has shown that this intervention is effective in improving cognitive function in older adults at risk of dementia. Furthermore, this intervention can also be used in educational contexts to help students with learning difficulties. Thus, the flexibility of this intervention allows for its application across a variety of settings and populations (X. Li et al., 2023).

In the context of the community, Cognitive stimulation intervention can be integrated into dementia prevention programs for elderly people with mild cognitive impairment, such as group CST twice a week for 5 days, which significantly improves attention and working memory. Combining it with physical exercise has the potential to improve quality, is affordable, and is feasible in nursing homes or elderly health posts. However, cultural adaptations (Sani et al., 2024). Clinical recommendations

include programs Multi-domain cognitive function training in MCI & mild dementia: 30 minutes, 3x/week, 8 weeks (24 sessions), improves global cognitive function, working memory, selective attention, and maintains effects up to 1 year (Sung et al., 2023)

Theme II: Music Intervention

Music intervention has emerged as one of the most widely studied non-pharmacological approaches in dementia care over the past decade. Music is believed to activate relatively preserved neural networks in individuals with dementia, particularly those associated with emotional processing and autobiographical memory. Furthermore, evidence from the literature indicates that music interventions not only provide cognitive stimulation but also contribute to emotional regulation and improvement in overall quality of life among people with dementia (Sung et al., 2023). Music interventions for dementia include various forms, such as listening to music (receptive music), singing together, playing simple instruments, and music therapy guided by a professional therapist. This approach is flexible and can be tailored to the severity of dementia and individual preferences. A meta-narrative study confirmed that personalization of music is a key factor in intervention success (Soufineyestani & Khan, 2021).

Music interventions have demonstrated consistent effectiveness in reducing agitation and aggression among people with dementia. Evidence from recent systematic reviews and randomized controlled trials shows that music therapy significantly improves behavioral and psychological symptoms, stabilizes emotional responses, and reduces problematic behaviors. Both group-based and individualized music interventions are particularly effective in long-term care settings, highlighting their value as an important non-pharmacological strategy in dementia care (Hu & Xu, 2026). In addition to agitation, emotional aspects such as anxiety and depression are also key targets of music interventions. A systematic review showed that music can reduce levels of anxiety and depression in mild to moderate dementia through relaxation mechanisms and the activation of positive emotions (Sung et al., 2023). Person-centered music interventions that use music selected based on a person's individual life history and preferences have been shown to be more effective than generic music in improving mood and social engagement in people with dementia, as personalized music can better stimulate emotional responses and facilitate social connection and well-being (Santini et al., 2025) This approach also strengthens the sense of self-identity that is often lost in dementia.

From a cognitive perspective, the effects of music interventions tend to be moderate and inconsistent. However, several studies report improvements in attention, orientation, and verbal communication during music sessions. This suggests that music acts more as a facilitator of remaining functions than as a cognitive restorative intervention (Soufineyestani & Khan, 2021). Music interventions also have a positive impact on social interactions in people with dementia. Group music activities encourage participation, emotional expression, and interpersonal relationships between patients, caregivers, and care staff. Observational studies and controlled trials report significant increases in social engagement during and after music sessions (Santini et al., 2025) Although the benefits of music interventions have been widely reported, methodological challenges remain a major concern. Variations in study design, intervention duration, and outcome measurement tools contribute to heterogeneity in research results. A recent Cochrane review emphasized the need for clinical trials with more rigorous methodology and larger sample sizes (Soufineyestani & Khan, 2021)

Theme III: Psychosocial Interventions

Psychosocial interventions are a non-pharmacological approach that is increasingly recognized as a key component of modern dementia care. This approach focuses on the psychological, emotional, social, and environmental aspects of the patient, with the goal of improving quality of life and reducing behavioral and psychological symptoms of dementia. A systematic synthesis of numerous reviews indicates that psychosocial interventions provide consistent benefits to the emotional well-being of people with dementia (Carvalho et al., 2021). Psychosocial interventions are based on the

biopsychosocial model, which conceptualizes dementia as a condition influenced by the dynamic interaction of biological, psychological, and social factors. This approach emphasizes the importance of personal meaning, interpersonal relationships, and a supportive environmental context in maintaining well-being and functional ability (Chow et al., 2021)

One of the most widely applied forms of psychosocial intervention is cognitive and social stimulation therapy. This intervention combines mental activities with structured social interactions, thus not only stimulating cognitive function but also strengthening emotional engagement. Empirical evidence shows improvements in mood and quality of life, although the effects on cognitive function are moderate (Carvalho et al., 2021). The person-centered care approach has become a primary paradigm in psychosocial interventions, positioning individuals with dementia as active subjects, taking into account their life history, values, and personal preferences. Studies have shown that person-centered psychosocial interventions are effective in reducing agitation, anxiety, and depression, as well as improving interpersonal relationships in the care setting (Livingston et al., 2020)

Psychosocial interventions also play a crucial role in managing behavioral and psychological symptoms of dementia, such as aggression, apathy, and sleep disturbances. Compared with pharmacotherapy, psychosocial approaches are considered safer and more sustainable. Several systematic reviews report that meaningful activity-based interventions and environmental modifications are effective in reducing the frequency and intensity of behavioral and psychological symptoms associated with dementia (Carvalho et al., 2021).. Psychosocial interventions are also targeted at caregivers as an integral part of the care system. Educational programs, emotional support, and coping training have been shown to reduce stress, depression, and burnout in caregivers. Research shows that caregiver well-being directly contributes to the quality of care received by people with dementia (Livingston et al., 2020).

Theme III: Reminiscence Therapy

Reminiscence therapy is a psychosocial intervention aimed at reactivating long-term memory through recalling meaningful past life experiences. In dementia patients, long-term memory is relatively better preserved than short-term memory, so this therapy can help maintain self-identity, increase self-esteem, and strengthen social relationships. Thus, reminiscence therapy has direct relevance to improving the quality of life of dementia patients (Park et al., 2019). Various studies have shown that reminiscence therapy has a significant positive impact on the quality of life of dementia patients. A randomized controlled trial conducted in Alzheimer's patients showed that reminiscence therapy significantly improved quality of life, accompanied by improvements in cognitive function and reduced depression (Bademli, 2018).

Another study in elderly people with dementia undergoing long-term care showed that reminiscence therapy improved quality of life while reducing agitation and other neuropsychiatric symptoms. This finding confirms that improved quality of life is inseparable from improvements in the patient's emotional and behavioral conditions (Bayram, 2024). The effectiveness of reminiscence therapy on quality of life is also influenced by the care setting. A systematic review showed that in patients with mild to moderate dementia in long-term care facilities, reminiscence therapy contributed to improved quality of life, decreased depression, and reduced agitation (Surangi, 2023) In addition to institutional settings, reminiscence therapy is also effective in community settings. A systematic study reported that reminiscence therapy in elderly people with dementia living in the community significantly improved quality of life and life satisfaction (Park et al., 2019)

A meta-analysis also found that reminiscence therapy has a moderate effect on improving quality of life in people with dementia, as well as having a positive impact on emotional and social aspects (Daryanti et al., 2022). imilar results were reported in a systematic review confirming that reminiscence therapy is an effective and safe non-pharmacological intervention for improving quality of life in Alzheimer's patients (Camisuli et al., 2022).

Theme IV: Aromatherapy Therapy

Aromatherapy is a complementary therapy that uses natural essential oils, such as lavender, lemon balm and rosemary, administered through inhalation or topical application (El et al., 2020). The mechanism of action of aromatherapy is thought to be related to stimulation of the limbic system via the olfactory nerve, which plays a role in regulating emotions, memory, and mood. In dementia patients, this stimulation can help reduce agitation, improve mood, and create a sense of comfort, indirectly contributing to an improved quality of life (Ebihara, 2021).

Research shows that aromatherapy has positive potential in improving the quality of life of dementia patients, particularly through improvements in behavioral and psychological symptoms. Experimental studies report that aromatherapy can reduce agitation in dementia patients, which is a major determinant of quality of life (B. S. Y. Li et al., 2021). Other research shows that aromatherapy in the form of hand massage with essential oils can improve mood and reduce symptoms of depression in people with dementia. This improvement in emotional state directly contributes to an improved perception of quality of life in patients (Xing et al., 2025).

In community and long-term care settings, aromatherapy has also shown promising results in quasi-experimental studies in community-based dementia patients reporting that aromatherapy significantly reduced agitation levels, which had a positive impact on patient comfort and quality of life (Ting et al., 2023). A systematic review with a multidisciplinary approach mixed-methods concluded that aromatherapy is relatively safe and effective in managing behavioral and psychosocial issues, and has the potential to improve the quality of life of dementia patients and reduce caregiver burden, however, variations in the type of essential oil, duration of intervention, and method of administration remain challenges in standardizing clinical practice (B. S. Y. Li et al., 2021)

A recent integrative review confirmed that aromatherapy has potential benefits across a spectrum of cognitive disorders, including dementia, particularly in improving emotional well-being and quality of life. Several systematic reviews also emphasized that the evidence remains heterogeneous, with differences in study design and sample size, necessitating further research with more robust methodology (Xing et al., 2025). Aromatherapy has demonstrated positive potential in improving quality of life for dementia patients, particularly through reduced agitation, improved mood, and increased emotional well-being. Aromatherapy can be considered as a supportive non-pharmacological intervention in holistic dementia care. However, its clinical application requires individual patient consideration and the support of evolving scientific evidence (El et al., 2020).

Theme V : Physical Activity and Exercise Interventions

Physical activity and exercise interventions are increasingly recognized as effective non-pharmacological strategies for improving quality of life in dementia. Furthermore, exercise plays a role in reducing neuropsychiatric symptoms such as depression, apathy, and anxiety, which are important determinants of quality of life in dementia. Research shows that physical exercise programs have a positive impact not only on cognitive function but also on aspects of quality of life and psychological well-being in various types of dementia (Balbim et al., 2022).

Several studies have shown that improved quality of life is closely related to improvements in physical function. Exercise interventions focused on strength, balance, and functional training have been shown to improve the ability to perform activities of daily living, thereby reducing dependence on caregivers. Randomized controlled trials have reported that functional exercise programs in older adults with dementia provide significant benefits on physical function and have positive implications for perceived quality of life, both from the perspective of the individual and caregivers (Sanders et al., 2020). Furthermore, quality of life in dementia is also significantly influenced by psychosocial aspects. Physical activity and exercise, particularly those conducted in groups, provide opportunities for social interaction, structured routines, and a sense of belonging. Intervention studies have shown that group exercise programs can improve mood, reduce social isolation, and

increase social engagement, all of which contribute to improved quality of life. A systematic review confirmed that physical activity interventions have moderate positive effects on quality of life and subjective well-being in individuals with dementia (Cardona, 2021)

Multicomponent approaches have also shown promising results. Exercise programs that combine aerobic, strength, balance, and flexibility training not only improve physical fitness but also impact overall quality of life. Protocol studies and program evaluationsBody & BrainStudies have shown that multicomponent exercise has the potential to improve physical and cognitive function and quality of life in individuals with dementia, although optimal effects require adequate duration and adherence (Carvalho et al., 2021). However, the literature also emphasizes the importance of tailoring interventions to individual abilities and conditions. The intensity, frequency, and type of physical activity need to be adjusted to avoid fatigue or the risk of injury, which can negatively impact quality of life. Research suggests that both low- and high-intensity exercise can provide benefits, provided it is designed safely and individually (Sanders et al., 2020).

Theme VI : Animal Assisted Therapy

Animal-based therapy or animal-assisted therapy (AAT) has been increasingly studied as a non-pharmacological intervention for dementia patients in the past decade. Dementia is a progressive neurodegenerative condition characterized by cognitive decline, behavioral disturbances, and a reduced quality of life, so a holistic approach is essential. Several studies have shown that animal-assisted therapy has the potential to provide psychological, behavioral, and social benefits to dementia patients (Nm et al., 2019). Interactions with therapy animals create meaningful experiences that can enhance the subjective well-being of dementia patients.

A number of experimental and quasi-experimental studies have reported that animal-assisted therapy can reduce stress, depression, and agitation, which directly correlates with improved quality of life. Research on older adults with dementia in long-term care facilities shows that patients who participate in a program animal-assisted therapy had better quality of life scores than the control group, particularly in terms of mood and daily life satisfaction (Baek et al., 2020). This reduction in neuropsychiatric symptoms allowed patients to participate more actively in routine activities, thereby improving overall quality of life. Communication limitations are a major factor in reduced quality of life in dementia. animal-assisted therapy acts as an effective social mediator, where the presence of therapy animals encourages interaction between patients, therapists, and other residents in the care environment. Cochrane review reported that although quantitative evidence is still limited, there are indications that animal-assisted therapy in increasing social engagement and positive patient responses, which are important components of quality of life (Lai et al., 2019).

Animal-assisted therapy Animal therapy also contributes to improving the quality of the care environment. The presence of animals can create a warmer, less threatening atmosphere, thereby reducing feelings of isolation and increasing patients' emotional well-being. A recent literature review confirmed that this intervention has the potential to enrich the therapeutic environment in nursing homes and healthcare facilities, positively impacting the quality of life of dementia patients in a sustainable manner (Alarcón-Braga et al., 2023). Animal-based therapy has been shown to positively impact the quality of life of dementia patients, particularly in psychological, social, and environmental aspects. AAT has the potential to be a valuable supportive intervention in dementia care, focusing on improving patients' well-being and meaning in life, although more robust evidence is needed to support widespread implementation in clinical practice (Nm et al., 2019).

CONCLUSION

Based on the synthesis of six themes of non-pharmacological interventions, it can be concluded that various approaches to cognitive stimulation, music interventions, psychosocial interventions, reminiscence therapy, aromatherapy, physical activity and exercise, and animal therapy consistently demonstrate a significant role in improving the quality of life of dementia patients. Although the effects on cognitive function are often moderate, these interventions have a significant impact on

emotional, social, comfort, and subjective well-being, which are key components of quality of life in dementia. Overall, these findings emphasize that dementia care should not only be oriented towards cognitive improvement, but also take a holistic and holistic approach. person centered which emphasizes the meaning of life, social engagement, and emotional comfort. A multimodal approach tailored to individual needs, preferences, and context is the most relevant and sustainable strategy for improving the quality of life of dementia patients across various care settings.

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