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INNOVATING NURSING IN THE DIGITAL AGE: Enhancing Education, Research, and Practice

Faculty of Nursing, University of Jember, Indonesia

## BEYOND MEDICATION: EXPLORING ANIMAL THERAPY FOR DEMENTIA IN OLDER ADULTS

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### ABSTRACT

**Introduction:** Older adults with dementia encounter multifaceted challenges, including cognitive, emotional, and social difficulties. Therefore, an effective non-pharmacological intervention is needed to improve their quality of life. One approach that is increasingly being developed is animal therapy, such as pet therapy and pet ownership, **Methods:** This paper applies a literature review methodology to conduct a critical appraisal of current studies exploring the interactions between older adults with dementia and therapy animals, **Results:** The results of the literature review show that active engagement in pet care is associated with several significant benefits, including: (1) reducing feelings of loneliness, (2) decreasing symptoms of depression, (3) improving quality of life, (4) promoting physical activity, (5) strengthening social interaction, and (6) providing basic cognitive stimulation, **Conclusions:** Animal therapy programs have demonstrated considerable efficacy in supporting the biopsychosocial well-being of older adults with dementia. To achieve the full potential of animal therapy in dementia care, stakeholders should ensure the presence of a supportive and holistic care environment.

Keywords: Animal Therapy; Dementia, Older Adults

### Introduction

Older adults living with dementia face three interrelated challenges: cognitive decline, such as memory impairment; emotional disturbances, including low mood; and social isolation, often accompanied by feelings of loneliness. These factors collectively contribute to a significant reduction in overall quality of life (Mayo et al., 2021). The impact of dementia extends beyond the individuals affected and places a considerable burden on caregivers and family members. Caregivers are frequently referred to as the “invisible second patients” due to the physical and emotional strain they

experience, including stress, fatigue, anxiety, and depression (Moberg et al., 2022). The symptoms and burden of dementia also significantly affect families, encompassing psychological stress, physical exhaustion, social isolation, and financial strain (Duplantier & Williamson, 2023).

Although pharmacological interventions are widely used in dementia management, their effectiveness is often limited and frequently accompanied by adverse side effects (Mercier et al., 2024). In contrast, non-pharmacological interventions have consistently demonstrated greater efficacy in improving quality of life among individuals with dementia.



Community-based programs, in particular, have shown significant benefits in enhancing psychological well-being and promoting social engagement among older adults (Luxton et al., 2025).

Animal-assisted therapy represents a promising non-pharmacological intervention that has demonstrated significant potential in improving the quality of life among older adults living with dementia (Sheikh et al., 2021). In recent years, the interaction between individuals with dementia and companion animals has received growing academic attention, as research increasingly highlights its psychosocial benefits. Such interactions have been found to offer emotional support, stimulate cognitive engagement to a modest extent, and create opportunities for both physical activity and meaningful social interaction (Gee & Mueller, 2019).

Despite encouraging preliminary findings, systematic and critical scientific evaluation is still needed to comprehensively assess the effectiveness of animal therapy in dementia care. Accordingly, this manuscript aims to review the current body of literature on the role of animal-assisted therapy in supporting the biopsychosocial well-being of older adults with dementia, and to identify its potential, challenges, and practical implications for implementation in broader care settings.

## Methods

This study employed a literature review methodology to critically examine existing empirical evidence on the role of animal therapy in supporting the well-being of older adults with dementia. The researcher systematically identified and reviewed ten peer-reviewed articles published between 2012 and 2025. These studies explored the

effects of pet ownership or structured animal therapy programs on various dimensions of well-being, including emotional regulation, cognitive stimulation, physical activity, social engagement, and overall quality of life. The selection of studies followed predefined inclusion and exclusion criteria. The inclusion criteria required that articles: (1) were written in English and available in full text, (2) involved older adults (aged 60 years and above) diagnosed with dementia, and (3) explicitly examined the impact of animal therapy or pet interaction on biopsychosocial outcomes. The researcher excluded studies that were not available in full text, were not written in English, or did not directly address the application of animal therapy in dementia care. The literature reviewed in this study was sourced from international journals indexed in reputable scientific databases such as SCIE, Scopus, PubMed, and DOAJ, and published by leading academic publishers including SAGE Publications and Oxford University Press. The selected studies employed a variety of research designs, including longitudinal studies, randomized controlled trials, quasi-experimental approaches, and mixed-methods research. The researcher critically appraised each article for methodological rigor and relevance and synthesized the findings to provide an integrative understanding of how animal therapy contributes to improving the quality of life in older adults living with dementia.



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Table 1. Literature Search Strategy Based

Search Database	SCIE	Scopus	PubMed	DOAJ
Search Results	32	26	24	21
Full-text (PDF), 2012–2025	14	22	10	8
Relevant Titles	4	7	4	2
Duplicate Titles	1	3	2	1
Eligible (meets inclusion & exclusion criteria)	2	5	2	1
Final Articles Included	10			



## Result

No	Author and Year	Article Title	Research Objective	Research Method	Findings
1	Li et al., 2023	Pet Ownership, Living Alone, and Cognitive Decline Among Adults 50 Years and Older	This study aimed to examine whether pet ownership can mitigate cognitive decline among older adults, particularly those living alone, and to assess whether it moderates the adverse effects of social isolation.	A prospective cohort study was conducted using data from the English Longitudinal Study of Ageing (ELSA), involving 7,945 participants aged 50 years and above. Cognitive function was assessed regularly over a 9-year period and analyzed using statistical models.	Older adults who lived alone experienced a slower rate of cognitive decline if they owned pets. This protective effect was likely mediated by reduced loneliness.
2	Wesenberg et al., 2019	Effects of an Animal-Assisted Intervention on Social Behaviour, Emotions and Behavioural and Psychological Symptoms in Nursing Home Residents with Dementia	The study sought to determine whether dog-assisted psychosocial interventions (AAI) provide additional benefits compared to similar non-animal interventions among nursing home residents with dementia.	A within-subject design was employed involving 19 residents with dementia. Participants engaged in both AAI and control sessions over 6 months. Sessions were recorded, coded, and analyzed using non-parametric tests and inter-rater reliability ( $\kappa > 0.6$ ).	AAI significantly increased the duration of positive emotional expressions and non-verbal social interactions, suggesting improved emotional stability and social engagement.
3	Carr et al., 2021	Dog Walking and the Social Impact of the COVID-19 Pandemic on Loneliness in Older Adults	This study aimed to assess whether regular dog walking reduced loneliness among older adults during the COVID-19 pandemic.	A longitudinal dataset of 466 older adults in Florida was analyzed, with data collected in 2018 (pre-pandemic) and 2020 (during pandemic). Ordinary Least Squares regression was used to examine interaction effects.	Daily dog walking promoted physical activity and social contact, serving as a protective factor against pandemic-related loneliness.
4	Tak, 2012	Therapeutic Garden Design Proposal of a Long Term Care Facility for the Elderly	The study aimed to formulate a therapeutic garden design tailored to the needs of older adults with dementia in long-term care facilities.	The study combined literature review, international case studies, site analysis, and focus group interviews with care facility users.	Engaging in light animal-related activities, such as feeding chickens, was found to stimulate physical movement and enhance emotional and cognitive function.



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No	Author and Year	Article Title	Research Objective	Research Method	Findings
5	Friedmann et al., 2023	Pet Ownership and Maintenance of Physical Function in Older Adults—Evidence From the Baltimore Longitudinal Study of Aging (BLSA)	This study aimed to investigate whether pet ownership is associated with the maintenance of physical function and well-being in community-dwelling older adults.	Longitudinal data from 637 adults aged 50–100 years were analyzed using linear mixed models across a 10–13-year span.	Pet owners exhibited superior cardiovascular fitness, walking speed, physical performance, and subjective physical well-being compared to non-owners.
6	Opdebeeck et al., 2021	What Are the Benefits of Pet Ownership and Care Among People With Mild-to-Moderate Dementia?	The study aimed to explore the associations between pet ownership and caregiving involvement with physical activity, loneliness, depression, and quality of life among individuals with mild-to-moderate dementia.	Data from the IDEAL Programme, involving 1,542 participants, were analyzed using linear and logistic regression, controlling for relevant covariates.	Actively caring for a pet, particularly a dog, was significantly associated with a 35% reduction in loneliness and improved psychosocial outcomes.
7	Hajek & König, 2020	How Do Cat Owners, Dog Owners and Individuals Without Pets Differ in Terms of Psychosocial Outcomes Among Individuals in Old Age Without a Partner?	This study aimed to compare psychosocial outcomes—including loneliness, depression, and social isolation—among older adults without a partner based on pet ownership type.	Cross-sectional data from the 2014 German Ageing Survey (n = 1,160) were analyzed using multiple linear regression.	Dog owners reported significantly lower levels of loneliness and social isolation than non-owners, possibly due to increased physical activity and social interaction.
8	Bould et al., 2025	Pilot of an Animal-Assisted Activity Program to Support Intergenerational and Intercultural Community Connections to Reduce Loneliness and Social Isolation	This study aimed to evaluate the effectiveness of the “Pets and People Program,” an animal-assisted activity (AAA) intervention to reduce loneliness and foster intergenerational and intercultural connection.	A participatory action research design was employed over 18 weeks in two aged care facilities. The program involved real and robotic animals and was evaluated using pre/post questionnaires and semi-structured interviews.	AAA participation facilitated inclusive social interaction and strengthened connections across age and cultural groups, contributing to reduced social isolation.
9	Parra et al., 2021	Benefits of Dog-Assisted Therapy in Patients With Dementia Residing in Aged	This study aimed to assess the therapeutic impact of dog-assisted therapy (DAT) on emotional, behavioral, cognitive, and functional outcomes	A randomized controlled trial was conducted over 8 months with 334 participants. Assessments included the MMSE, Barthel	DAT significantly improved affective and behavioral outcomes by engaging cognitive processes such as attention, memory, and communication through



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No	Author and Year	Article Title	Research Objective	Research Method	Findings
		Care Centers in Spain	among institutionalized dementia patients.	Index, Cornell Scale for Depression in Dementia, and Neuropsychiatric Inventory.	structured interactions with dogs.
10	Ritchie et al., 2021	Exposing the Mechanisms Underlying Successful Animal-Assisted Interventions for People with Dementia: A Realistic Evaluation of the Dementia Dog Project	This study aimed to identify the contextual and psychological mechanisms contributing to the success of dog-based interventions for people with dementia.	The researchers employed realistic evaluation methodology, including interviews and document analysis, with four dyads of dementia patients and their assistance dogs.	Results highlighted three key mechanisms—emotional bonding, family interaction, and daily routine formation—as drivers of improved quality of life and psychosocial well-being.



## Discussion

The results of the literature review show that active engagement in pet care is associated with several significant benefits, including: (1) reducing feelings of loneliness, (2) decreasing symptoms of depression, (3) improving quality of life, (4) increasing physical activity, (5) strengthening social interaction, and (6) providing basic cognitive stimulation

### Reducing Feelings of Loneliness

Owning pets such as dogs and cats can provide significant emotional benefits for older adults with mild to moderate dementia. These animals are not only loyal companions but also help foster emotional comfort and stability for individuals with limited social interaction or cognitive functioning. Daily activities such as feeding or walking the pet help establish meaningful routines and reduce feelings of loneliness and emotional emptiness. Research shows that older adults living alone who own pets experience a slower decline in cognitive function, likely due to the emotional connection with the animal which mitigates feelings of isolation (Li et al., 2023). Furthermore, older adults who are actively involved in caring for a dog report a 35% lower risk of loneliness compared to those without dogs (Opdebeeck et al., 2021). These interactions foster emotional bonds and open opportunities to build new social relationships, thereby reducing social isolation commonly experienced by elderly individuals (Hajek & König, 2020).

### Decreasing Symptoms of Depression

Caring for pets has been shown to offer significant psychological benefits, particularly in reducing depressive symptoms in older adults with dementia. Simple activities such as feeding, grooming, or simply sitting with the pet can foster a sense of responsibility and meaningful engagement in daily life. This sense of routine provides a stable structure and cultivates a sense of safety, which is especially important for individuals with cognitive impairments who may experience disorientation and anxiety. Moreover, interactions with animals often bring moments of joy and emotional calm, which contribute positively to mood regulation (Orr et al., 2023). In some cases, older adults with depressive symptoms choose to own dogs as a form of emotional support to reduce loneliness and encourage physical activity (Sharpley et al., 2020). It is important to note, however, that these psychological benefits are most pronounced when the elderly are actively involved in pet care. Conversely, passive pet ownership without involvement may lead to feelings of helplessness and exacerbate depressive symptoms.

### Improving Quality of Life

For older adults with dementia, the presence of a pet can serve as a vital source of emotional comfort and psychosocial support. The emotional connection developed between older adults and their pets creates a sense of safety, stability, and meaning in daily life, particularly in the context of cognitive confusion. In long-term care settings, pets





are often seen as "transitional objects"—entities that help fill relational voids and provide inner peace. Qualitative studies have demonstrated that interacting with dogs can help reduce symptoms of depression, anxiety, and loneliness while enhancing social participation, all of which contribute to improved quality of life in people with dementia (Jain et al., 2020).

Beyond qualitative evidence, a meta-analysis of five randomized controlled trials revealed that dog-assisted therapy is significantly more effective in reducing psychological distress compared to standard care, indicating a meaningful contribution to enhanced quality of life (Jain et al., 2020). Interventions such as Animal-Assisted Intervention (AAI), which involve structured interactions with animals in individual or group therapy sessions, have been shown to improve emotional and cognitive well-being in patients. A study by (Wesenberg et al., 2019) found that the presence of a dog during therapy sessions significantly extended the duration of positive emotional expressions and increased the frequency of non-verbal social interactions, such as petting or gazing at the animal—behaviors indicative of emotional stability. Collectively, these findings underscore the profound impact of emotional bonds with animals on the quality of life of older adults with dementia.

#### Promoting Physical Activity

Pet ownership, particularly of dogs, has been shown to encourage older adults with

dementia to be more physically active through routine activities that involve movement. Walking a dog, for example, prompts older adults to leave their homes and increases physical activity, adding an average of 22 minutes of walking per day—and in some cases up to 248 minutes per week (Carr et al., 2021). Additionally, caring for smaller animals such as cats, birds, or rabbits provides physical benefits through actions like feeding, cleaning cages, or simple tasks such as bending and standing. These activities help maintain flexibility, balance, and core muscle strength, which are crucial for individuals with limited mobility (Tak, 2012). Longitudinal studies indicate that older adults who own pets show higher levels of cardiovascular fitness, more stable walking speeds, and a more positive perception of their physical health compared to those without pets (Friedmann et al., 2023). Active involvement in pet care is a key factor in the success of such interventions (Opdebeeck et al., 2021), while emotional bonding and family support further motivate seniors to maintain regular physical activity (Ritchie et al., 2021)

#### Strengthening Social Interaction

The presence of a pet can serve as a catalyst for strengthening the social relationships of older adults with dementia. When seniors walk their dogs or care for pets at home, they are more likely to engage in conversations with others, including neighbors, visitors, or care staff. Pets often become pleasant and empathetic topics of conversation, helping to build deeper interpersonal connections with





family, caregivers, and fellow residents in social settings. Animal-Assisted Activity (AAA) programs have been empirically shown to promote social inclusion, especially for individuals at risk of isolation, such as those living with dementia (Bould et al., 2025). In this context, pets are not only companions but also social facilitators that enhance interpersonal networks.

#### Providing Basic Cognitive Stimulation

Caring for pets provides light cognitive stimulation that is essential for older adults with dementia through daily activities that engage basic mental processes. Tasks such as remembering feeding schedules, selecting appropriate food, or planning walk times require executive functioning, including working memory, attention, and decision-making. These activities help maintain daily structure and reinforce a sense of responsibility and purpose. Research indicates that older adults with pets perform better on tasks requiring sustained attention and executive control than those without pets (Tepper et al., 2023). Dog-Assisted Therapy (DAT) enhances this potential by offering therapy sessions that include activities such as giving simple commands, grooming, playing memory games, and recalling past experiences involving animals (Parra et al., 2021). These methods provide natural and meaningful cognitive stimulation within an emotionally safe and supportive environment.

#### **Conclusion**

This review concludes that animal therapy provides substantial biopsychosocial benefits for older adults living with dementia. These benefits include reductions in loneliness and depressive symptoms, improvements in quality of life, increased levels of physical activity, enhanced social engagement, and modest cognitive stimulation. The evidence suggests that incorporating animal therapy into dementia care may contribute to more person-centered and emotionally supportive interventions. However, its success depends on thoughtful program design, ethical considerations regarding animal welfare, and alignment with the individual needs and preferences of older adults. To fully realize its therapeutic potential, animal therapy should be implemented within a holistic care framework supported by trained professionals, caregivers, and policy stakeholders.

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