

LEE LIMING
PROGRAMME IN
AGEING URBANISM

Animal and Robot Assisted Therapy for People Living with Dementia (PLD)

Recreational Initiatives for Seniors¹

Ramesh Pillai

Animal-assisted therapy (AAT) is gaining acceptance and popularity in residential aged care facilities and with residents who have dementia. AAT is defined as “a goal-directed intervention where an animal becomes an essential part of the treatment process”. It involves specifically trained animals and professionals working as co-therapists.

Animals commonly used in AAT include dogs, cats and birds, but horses and other animals may be used depending on individual client needs. Canine-assisted therapy is the most common type of AAT used with dementia patients. Feline-assisted therapy is also common in long-term care facilities such as nursing homes and assisted-living homes.

¹ This is an evolving database. We will be adding more examples and cases over time.

Cats often live in long-term care facilities and are looked after by residents and staff as pets. The presence of animals in long-term care facilities can foster a relaxing and home-like environment. Studies have highlighted the benefits of AAT for PLD in terms of improvements in physical, mental, emotional, and social functioning. Some benefits of AAT for PLD are outlined in Box 1.

Box 1: Benefits of AAT

AAT provides PLD with opportunities for:

- Expression of emotions.
- Meaningful communication – i.e. through interacting with and talking about the therapy animal.
- Validation and a sense of purpose – i.e. by taking care of, and communicating with, the therapy animal.
- Reminiscence – i.e. recalling and talking about past pets.
- Tactile and sensory experiences.
- Expression of positive social behaviours – i.e. smiling, laughing and eye contact.

Source: Dementia Behaviour Management Advisory Service, (2012). *Animal Assisted Therapy (Pet Therapy) in Dementia Care* (pp. 1-38). Australian Government Initiative.

Theories (e.g. Biophilia hypothesis, attachment theory and learning theory) that

have been put forward to explain the improvements in wellbeing that result from AAT point to the particular role of the special, natural bonding process that occurs between person and animal.

Robotic Pets

Robots fitted with sensors can respond to emotional changes in people and also monitor people's health status. Robots require less space and have fewer (if any) care requirements than animals. Thus, robots have been proposed as an alternative to animals in assisted therapy in some contexts.

The effects of robot assisted therapy on health and wellbeing was examined in an experimental study involving an Artificial Intelligence Robot (AIBO) and a battery-powered toy dog. AIBO is a robot pet simulator that can walk, respond to commands, and sense its environment through touch, sight and hearing. Covered in a plush fabric, the battery-powered dog can wag its tail and sit, but does not respond to commands. Residents responded with interest to AIBO but they responded more readily to the battery-powered toy dog, and did so with less encouragement from the facilitating occupational therapist. Residents were reluctant to touch AIBO, even when it was dressed in furry "clothes" that made it feel and look more like the toy dog. However, neither

AIBO nor the toy dog stimulated patients to reminisce about their past. Some guidelines for simulated and robotic pet assisted therapy are provided in Box 2.

Box 2: Guidelines For Simulated and Robotic Pet Assisted Therapy

- Be mindful of individual preferences for particular animals.
- The type of representational pet selected should match the person's cultural background and social history.
- Animal representational toys should be interactive and as life-like as possible in terms of appearance, weight, sound emitted, smell and texture.
- Do not interfere with the image that the person with dementia has of the simulated or robotic pet if they are observed to be responding positively to the therapy.
- Monitor and evaluate the success of the intervention in providing the person with pleasure, meaningful activity and diversion from targeted behavioural and psychological symptoms of dementia.

Source: Dementia Behaviour Management Advisory Service, (2012). *Animal Assisted Therapy (Pet Therapy) in Dementia Care* (pp. 1-38). Australian Government Initiative.

Sources:

- Cevizci, S., Murat, H., Gunes, F., & Karaahmet, E. (2013). *Animal Assisted Therapy and Activities in Alzheimer's Disease*. Dementia Behaviour Management Advisory Service. (2012). *Animal Assisted Therapy (Pet Therapy) in Dementia Care* (pp. 1-38). Australian Government Initiative. Filan, S. & Llewellyn-Jones, R. (2006). Animal-assisted therapy for dementia: a review of the literature. *International Psychogeriatrics*, 18(04), 597. Kramer, S., Friedmann, E., & Bernstein, P. (2009). Comparison of the Effect of Human Interaction, Animal-Assisted Therapy, and AIBO-Assisted Therapy on Long-Term Care Residents with Dementia. *Anthrozoos: A Multidisciplinary Journal Of The Interactions Of People & Animals*, 22(1), 43-57. Perkins, J., Bartlett, H., Travers, C., & Rand, J. (2008). Dog-assisted therapy for older people with dementia: A review. *Australasian Journal On Ageing*, 27(4), 177-182. Sellers, D. (2006). The Evaluation of an Animal Assisted Therapy Intervention for Elders with Dementia in Long-Term Care. *Activities, Adaptation & Aging*, 30(1), 61-77.