



# ANIMAL ASSISTED INTERVENTIONS

**Animal Assisted Activity (AAA)  
Animal Assisted Therapy (AAT) – Animal Assisted Education (AAE)  
Animal Assisted Coaching/Counseling (AAC).**

## KEY POINTS

- To stimulate and improve physical, cognitive and psychological capabilities.
- These interventions involve physical, cognitive and social processes.
- Observed effects are an increase in social interaction, an improvement in quality of life, an improvement in balance and a decrease in behavioural and psychological symptoms.
- In group or individually.
- For people with mild to moderately severe dementia who enjoy animals.

## PRESENTATION

### A. Definition

Animal Assisted Interventions (IAA) are psychosocial interventions by trained human-animal teams, aiming to improve the quality of life of vulnerable populations such as people with dementia.

“Animal Assisted Activity (AAA) is a planned and goal-oriented informal interaction and visitation conducted by the human-animal team for motivational, educational and recreational purposes. Human-animal teams must have received at least introductory training, preparation and assessment to participate in informal visitations. Human-animal teams who provide AAA may also work formally and directly with a healthcare professional, educator, human service provider on specific, documentable goals. In this case they are participating in AAT, AAC or AAE that is conducted by a specialist in his/her profession”<sup>[1]</sup>.

“Animal Assisted Therapy is a goal-oriented, planned and structured therapeutic intervention directed and/or delivered by health, education, and human service professionals.

Intervention progress is measured and included in professional documentation. AAT is delivered and/or directed by a formally trained (with active licensure, degree, or equivalent) professional with expertise in the scope of the professional’s practice. AAT focuses on enhancing physical, cognitive, behavioural and/or socioemotional functioning of the particular human recipient”<sup>[1]</sup>.

Animal Assisted Education is a recent area involving teachers, school psychologists or speech therapists trained in animal assisted education. Animal Assisted Coaching/Counseling is a booming sector offering interventions in burn-out, psychological trauma contexts, or in life skills training.

In elderly care, it is mostly AAA and AAT that are put into practice.

### B. Fundamentals

Animal Assisted Intervention is a fast-growing field with great potential. These interventions are innovative, non-invasive, embodied interventions aimed to motivate, activate, distract, elevate mood, relax and increase social interaction in a context of animation or therapeutic indication.

# ANIMAL ASSISTED INTERVENTIONS

## THEORETICAL BACKGROUND

### A. Processes involved

Interventions with animals, therapeutic and/or as activity, affect psychological, physical, and social functioning of people with dementia. AAI have a positive effect on cognitive functioning such as being alert and 'in the present' as on the mood of people with dementia<sup>[2]</sup>, on physical functioning such as enhancing the level of activity and improving movement and balance<sup>[3-4]</sup>, and on social functioning, by stimulating communication and social inclusion<sup>[5]</sup>. Since AAI are experience oriented, embodied and not per se verbal, it can be a good fit for people with cognitive disorders who have trouble understanding verbal communication. AAI have been found to reduce stress, depressive mood, aggression, and pain and to promote trust, calmness, motivation, and concentration. The physical interaction with the animal activates the oxytocin system, and thus attachment and caregiving behaviour<sup>[6]</sup>. The embodied experience in the AAI (all senses are involved) and the non-judgmental, unambiguous behaviour of the animal create safety, relaxation, joy, distraction, and support<sup>[7]</sup>. Theories that are used to explain the working mechanisms of human-animal interactions are all based on relational mechanisms, such as synchrony, attunement, attachment, social support and biophilia. Similar neurobiological/physiological processes take place in the interactions as in interactions between humans.

- Physical processes: fine motor skills, balance, movement coordination, physical and sensorimotor integration (e.g., when walking with the animal, playing, or reaching out to the animal).
- Cognitive processes: attention, concentration, sensory stimulation and processing, attunement and synchronization with the human-animal team, reminiscence.
- Behavioural processes: expression of emotions, verbal and non-verbal, enhancement of activity level, relaxation, taking initiatives.
- Social processes: social interactions, social inclusion.
- Neurobiological/physiological processes: release of oxytocin, decrease in level stress of hormone cortisol, effect on blood pressure and heartrate.

### B. Neurophysiological correlates

There are no studies to date on the neurophysiological correlates of AAI.

## SCIENTIFIC EVALUATION

In the last decades research in AAI has focused on quality of life of nursing home residents, especially for people with dementia. A growing number of studies have documented (small) positive effects on outcomes like social interaction,

depression and behavioural and psychological symptoms<sup>[8]</sup>. In more recent studies, conducted to support the evidence through a scientific approach based on theoretical constructs, positive effects were reported on agitation, depression, quality of life and balance<sup>[2; 4; 9-12]</sup>.

AAI may be cost-effective in elderly care for several reasons, for example: less agitation of people with dementia will be beneficial for the atmosphere in the ward and for the workload of care staff (less burnout); a non-pharmacological approach will save the costs of medication and prevent over-medication (delirium); a pleasant activity will distract from minor health problems and thus will save time of staff and reduce medical involvements. However, scientific research into cost-effectiveness of AAI with people with dementia in nursing homes has not yet been undertaken.

## IMPLEMENTATION AND PRACTICAL ADVICE

### A. Training and/or knowledge required to provide the intervention

The human-animal teams need to be qualified and certified: well trained in their profession, have specific knowledge in the field of people with dementia and trained in the field of the animals involved (ethology, ethics, animal well-being, etc.). AAI can mean a strong motivational add-on to many therapies in elderly care (physiotherapy, psychotherapy, occupational therapy) and can mean a welcome, relaxing, distractive activity in the daily lives of elderly people in or outside a nursing home.

The field of AAI in elderly care is multidisciplinary. The teams can range from trained volunteers and professionals with animals doing AAA, to professionals with animals doing AAT (nurses, occupational therapists, physiotherapists, psychologists, medical doctors). The animal species range from dogs and horses to donkeys, cats, hamsters, rabbits, chickens, etc.

The animals in the AAI teams need to be checked regularly by an animal behaviourist (the behaviour of the animal, the interaction of the animal and the professional and the (emotional) well-being of the animal involved) and a veterinarian (for physical health and zoonoses). The professionals involved also need to be up to date in practice and knowledge and receive appropriate supervision.

When AAI are provided in health and medico-social establishments, hygiene and safety protocols should be presented and discussed with the hygiene and/or nosocomial infection control committees of the health and medico-social establishments.

# ANIMAL ASSISTED INTERVENTIONS

## B. Practical and clinical advice

ANIMAL ASSISTED THERAPY	ANIMAL ASSISTED ACTIVITY
<p><b>Participants profile</b></p> <p>People with dementia or cognitive disorders who like to interact with animals.</p>	<p>Idem.</p>
<p><b>Indications</b></p> <p>Motor Rehabilitation: animal assisted exercises with a physiotherapist (fine motor skills, walking, balance) or with a psychomotor therapist (to improve the synchronisation of the movements).            Cognitive Rehabilitation: animal assisted sessions with a neuropsychologist to improve cognitive functioning (reminiscence, activation).            Psychological rehabilitation: animal assisted sessions with a psychologist (to improve mood, decrease loneliness).</p>	<p>For recreation.            For relaxation.            For activation.            For distraction.            For playfulness.            For reminiscences.            For fun.            To bring people in present state.            To enhance social inclusion.</p>
<p><b>Contra-indications</b></p> <p>Allergy.            Fear of animals or trauma with animals in past.            Aggressive behaviour towards animals in present or past.            Severe cognitive disorders or concurrent major psychiatric disorders (e.g., hallucinations).</p>	<p>Idem.</p>
<p><b>Contributors</b></p> <p>Therapists as medical doctors, (neuro) psychologists, physiotherapist, psychomotor therapist, nurses, working with or without an animal handler must be trained and certified to work with the animal in AAT.            The animal must belong to the therapist or to an organisation and be very familiar to the therapist and must also be specifically trained to be certified as a "mediator".</p>	<p>Trained and certified AAA teams (human-animal).</p>
<p><b>Setting of intervention</b></p> <p>Kind of room depends of the discipline of the therapist that delivers AAT. A safe place to rest for the animal; water needs to be available; hygiene and safety measures and protocols in place; a non-slip floor or ground.</p>	<p>A quiet room; easily accessible for wheelchairs and walker; a non-slippery floor (for the animals); enough space to play and interact with the animal; hygiene and safety measures and protocols in place; safe place for the animal to rest and a water bowl.</p>
<p><b>Dosage</b></p> <p>Weekly 1 session, not longer than 45 minutes, until treatment goal is reached.</p>	<p>Weekly 1 or 2 AAA sessions, not longer than 30 to 45 minutes for group sessions; individual sessions same dosage, however 15 to 20 minutes.            For group session, no more than 5-8 participants.</p>
<p><b>Session sequencing</b></p> <p>Individual sessions or groups of 3 participants.</p>	<p>If possible, twice a week. An AAA session will have more effect twice than once per week. The longer the program (at least 12 – 16 weeks), the better.</p>
<p><b>Observance / Attendance</b></p> <p>The therapist will evaluate each AAT session and follow the treatment plan. If a person does not want to come to a session it needs to be respected.</p>	<p>The AAA providers observe what is happening in their sessions and keep a record of what was happening with whom, to be able to build on the experiences with the participants in the next session.            If a participant does not want to visit a session it should be respected.</p>
<p><b>Assessment</b></p> <p>The providers of AAT as well as the animals need to be assessed (for adequate training, health, suitability).            The participants should be assessed if they like animals, if there is no history of animal trauma or abuse of animals, if they are able to handle animals in a way that is safe for the animal.</p>	<p>Idem.</p>

# ANIMAL ASSISTED INTERVENTIONS

## FOR MORE INFORMATION

- International Association of Human-Animal Interaction Organizations: <https://iahaio.org/>
- Fondation Adrienne et Pierre Sommer: <https://fondation-apsommer.org/>
- Animal Assisted Therapies – International Association of Animal Assisted Therapy: [www.aat-isaat.org](http://www.aat-isaat.org)
- Animal Assisted Interventions: SCAS (The Society for Companion Animal Studies Code of Practice) for the UK: <http://www.scas.org.uk/wp-content/uploads/2019/08/SCAS-AAI-Code-of-Practice-August-2019.pdf>
- General Standards of Practice: <https://aai-int.org/aai/standards-of-practice/>

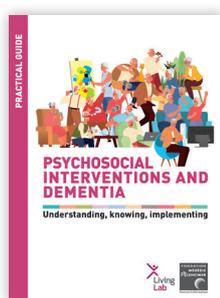
## ABOUT THE AUTHOR

**Marie-Jose Enders-Slegers**, prof.em., PhD, is a health psychologist, working in the field of the Human-Animal Bond and Animal Assisted Interventions at the Open University in the Netherlands and is President of IAHAIO (International Association of Human Animal Interaction Organizations).



## References

- [1] Jegatheesan, B., Beetz, A., Ormerod, E., Johnson, R., Fine, A., Yamazaki, K., Duzik, C., Garcia, R.M., & Choi, G. (2014). IAHAIO Whitepaper 2014 (updated for 2018). *The IAHAIO Definitions for Animal Assisted Intervention and Guidelines for Wellness of Animals Involved in AAI*. Available online: <https://iahaio.org/wp/wp-content/uploads/2021/01/iahaio-white-paper-2018-french.pdf>.
- [2] Wesenberg, S., Mueller, C., Nestmann, F., & Holthoff-Detto, V. (2019). Effects of an animal-assisted intervention on social behaviour, emotions, and behavioural and psychological symptoms in nursing home residents with dementia. *Psychogeriatrics*, 19(3), 219-227.
- [3] Friedmann, E., Galik, E., Thomas, S. A., Hall, P. S., Chung, S. Y., & McCune, S. (2014). Evaluation of a Pet-Assisted Living Intervention for Improving Functional Status in Assisted Living Residents With Mild to Moderate Cognitive Impairment: A Pilot Study. *American Journal of Alzheimer's Disease and Other Dementias*, 30(3), 276-289.
- [4] Olsen, C., Pedersen, I., Bergland, A., Enders-Slegers, M. J., & Ihlebæk, C. (2016). Effect of animal-assisted activity on balance and quality of life in home-dwelling persons with dementia. *Geriatric Nursing*, 37(4), 284-291.
- [5] Enders-Slegers, M.-J., & Hediger, K. (2019). Pet Ownership and Human-Animal Interaction in an Aging Population: Rewards and Challenges. *Anthrozoös*, 32(2), 255-265.
- [6] Beetz, A. M. (2017). Theories and possible processes of action in animal assisted interventions. *Applied Developmental Science*, 21(2), 139-149.
- [7] Verheggen, T., Enders-Slegers, M.-J., & Eshuis, J. (2017). Enactive Anthrozoology Toward an integrative theoretical model for understanding the therapeutic relationships between humans and animals. *Human-Animal Interaction Bulletin*, 5(2), 13-35. <https://www.apa-hai.org/human-animal-interaction/haib/2017/volume-5-no-2/enactive-anthrozoology/>
- [8] Nordgren, L., & Engström, G. (2014). Animal-Assisted Intervention in Dementia: Effects on Quality of Life. *Clinical Nursing Research*, 23(1), 7-19.
- [9] Bernabei, V., De Ronchi, D., La Ferla, T., Moretti, F., Tonelli, L., Ferrari, B., Forlani, M., & Atti, A. R. (2013). Animal-assisted interventions for elderly patients affected by dementia or psychiatric disorders: A review. *Journal of Psychiatric Research*, 47(6), 762-773.
- [10] Hu, M., Zhang, P., Leng, M., Li, C., & Chen, L. (2018). Animal-assisted intervention for individuals with cognitive impairment: A meta-analysis of randomized controlled trials and quasi-randomized controlled trials. *Psychiatry Research*, 260, 418-427.
- [11] Peluso, S., De Rosa, A., De Lucia, N., Antenora, A., Illario, M., Esposito, M., & De Michele, G. (2018). Animal-Assisted Therapy in Elderly Patients: Evidence and Controversies in Dementia and Psychiatric Disorders and Future Perspectives in Other Neurological Diseases. *Journal of geriatric psychiatry and neurology*, 31(3), 149-157.
- [12] Yakimicki, M.L., Edwards, N.E, Richards, E., & Beck, A.M. (2019). Animal-Assisted Intervention and Dementia: A Systematic Review. *Clinical nursing research*, 28(1), 9-29.



This sheet corresponds to a chapter of the guide *Psychosocial interventions and dementia: understanding, knowing, implementing* directed by the Fondation Médéric Alzheimer.

**Fondation Médéric Alzheimer**  
30 rue de Prony 75017 Paris  
[www.fondation-mederic-alzheimer.org](http://www.fondation-mederic-alzheimer.org)  
contact : [fondation@med-alz.org](mailto:fondation@med-alz.org)

© Fondation Médéric Alzheimer  
Communication – June 2021  
Design Philippe Lagorce

