

The role of animal-assisted therapy in physical and rehabilitation medicine

S. MUÑOZ LASA¹, F. FRANCHIGNONI²

¹Department of Physical Medicine and Rehabilitation
Complutense University, Madrid, Spain

²Unit of Occupational Rehabilitation and Ergonomics
Salvatore Maugeri Foundation
Clinica del Lavoro e della Riabilitazione
IRCCS, Rehabilitation Institute of Veruno, Novara, Italy

Dear Editor,

At a time of increasing concern about how best to achieve balance between sustained rehabilitation treatments and cost containment, keeping in mind, in particular, patients' motivation and direct involvement, we believe that it would be strategic for physical and rehabilitation medicine (PRM) and allied professions to closely consider the field of animal-assisted activities (AAAs) and animal-assisted therapy (AAT).¹ In order to provide a better understanding of this field, the Delta Society Task Force of the Standards Committee has recently defined the two terms, AAAs and AAT. The AAAs basically represent informal activities that involve human-animal interactions; AAAs promote socialisation, motivation, education, recreation, and other therapeutic benefits to globally enhance quality of life. AAT, in contrast, represents a more formal, goal-directed intervention in which an animal that meets specific criteria becomes an integral part of a treatment process (functioning as a co-therapist); AAT is thus aimed at improvement of human function. Unlike AAAs, AAT is delivered and/or directed by people with specialized expertise (e.g., occupational therapists, certified therapeutic recreation specialists, nurses, mental health professionals, etc.) as a part of their professional activities; AAT has specific goals and objectives, it is documented in a person's medical history (with the progress and activity noted) and evaluated.

Animals have been our companions since the beginning of human life on earth, and we are well aware of the many ways that they have aided us, from the very earliest times, though they have not always received the gratitude they deserve. Only recently, however, have we begun to recognize the important role that animals play in human lives: they are not only attendants and companions, but they also function as co-therapists in many fields of medicine. In fact, animals can improve the physical, emotional, cognitive and/or social functioning of

humans, and play a crucial role in community health.^{2, 3} For this reason, AAAs and AAT are undergoing constant development (particularly in North America and North Europe);¹⁻³ they are being transformed from empirical aids into scientific treatments that are supported by evidence-based, peer-reviewed research documenting the effectiveness (in terms of physiological, psychological and social benefits) of many interventions. These topics can be tracked in biomedical web-based databases using key words such as "pet therapy", "companion animals", "animal-assisted activities" and "animal-assisted therapy".

Numerous types of interventions and programs (administered individually or in a group format) that use animals can provide health benefits in various settings (e.g., schools, health care facilities, residential and other treatment locations, etc.) and for various individuals (e.g., people with physical or cognitive disabilities, children, the elderly, schizophrenic patients, cancer patients, and prisoners).²⁻⁷ Almost any animal with which we can positively interact can be useful as a therapy animal, a service/assistance animal or a companion animal;¹ these animals include not only dogs and horses, but also dolphins, ornamental fish (e.g., in aquariums), cats, birds, rabbits, monkeys, and others. Each animal has a specific set of skills, temperament and aptitudes that it conveys to the therapy environment. The key components for the successful use of animals in these programs includes proper animal selection, appropriately trained personnel, expert supervision and animal care (very important in relation to both animal and human health, as well as environmental concerns), interdisciplinary cooperation, and development of protocol and training programs with realistic planning of measurable goals and objectives.^{1, 2, 8}

It is very important for PRM to keep abreast of this field, considering that a great deal of these interventions are of specific interest to physical, occupational, speech-language, and recreation therapies in people with physical impairments (e.g., spinal cord injury) or communication and mental impairments (e.g., dementia and depression).^{2, 3, 6, 7, 9} The most interesting results can be summarized as follows: enhancement of socialization (frequently, an increase in social interactions can improve the social climate of an institution, and help to achieve treatment goals);¹⁰ reduction of stress, anxiety, loneliness and agitated behaviours;^{1, 11} improvement in mood, self-esteem and general well-being;^{7, 12} and development of leisure/recreation skills.² Moreover, AAT goals in PRM may include the improvement of more specific targets: motor skills, wheelchair skills or balance, willingness to be involved in activities, outward focus stemming from verbal interactions, attention skills and knowledge of simple concepts, etc.² In particular, the friendliness of dogs can facilitate communication and interaction skills and may reinforce rehabilitative behaviours in patients through the

use of simple activities, like throwing a ball, walking, or talking.³ Hippotherapy, i.e., therapeutic horseback riding, has been reported to facilitate the normalization of muscle tone (spasticity reduction) and to improve posture, balance and coordination in children with cerebral palsy and people with multiple sclerosis and spinal cord injury.¹³⁻¹⁷ In addition, service animals aid people with various disabilities to perform everyday tasks. The animals can guide the visually-impaired, discriminate sounds for people with hearing impairments, perform tasks in response to voice commands (as Capuchin monkeys for tetraplegics), to name a few.²

In conclusion, many programs that utilize animals have been demonstrated to represent effective interventions for specific patient populations in several rehabilitative or other care facilities. We believe that PRM should foster further studies to gather scientific evidence addressing these interventions, and promote the clinical use of AAAs and AAT in fields where they can provide our patients with a promising, complementary and natural means to improve both their functioning and quality of life. These treatments provide not only specific physical and psychological benefits, but they also often add an extraordinary component that animals can offer: friendship and love.¹⁸

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Address reprint requests to: F. Franchignoni, MD, Fondazione Salvatore Maugeri, Clinica del Lavoro e della Riabilitazione, IRCCS, Via Revislate 13, I-28010 Veruno (NO), Italy.
E-mail: franco.franchignoni@fsm.it.