



Health benefits (socioeconomic value) of companion animals

A review of the literature with focus on essential aspects

FECAVA
(The Federation of European Companion Animal Veterinary Associations)
2009

Introduction

The dog joined humans 14000 years ago, the cat at a later stage, somewhat 9000 years ago. From the beginning the animals served specific purposes; the dog as a hunting companion and guard dog, the cat in keeping the grain chambers free of vermin. However, in more recent times dogs haven been given other roles, i.e. as sledge dogs, guiding dogs for the blind, service dogs, dogs trained for custom control and to identify specific objects as bombs and rotten building material.

However, the primary purpose of most companion animals is to be just that – a companion. And companion animals are important to humans. One of the most important positive aspects is a direct positive effect on the owner’s health, both socially as well as directly related to health issues and economy. In addition, there is increased awareness of the value of companion animals in animal assisted therapy for different groups of people.

There is much anecdotal knowledge regarding the value of companion animals to humans. However, anecdotes are not enough; facts are needed in order to determine the benefits, and also the disadvantages on human-animal interaction (HIA). This report produced by FECAVA is based on review of recent literature. For many years, all we had to rely on was reports on what people believed to be true, however, recently, there have been an increasing number of scientific reports based on studies in this field.

Is there a socioeconomic value of companion animals?

The answer is yes

The following will show that there is indeed an important socioeconomic value of companion animals. This can in part be calculated directly as reduced number of medical consultations and more rapid recovery after surgery for pet owners, and indirectly by improved quality of life and thus better function in society.

In order to make the report easier to the reader, we have divided the data according to age groups:

- Children preschool – end of high school (babies are not included)
- Adolescents
- Adults
- Elderly

Then each group is divided according to

- Social and health benefits
- Disadvantages and dangers

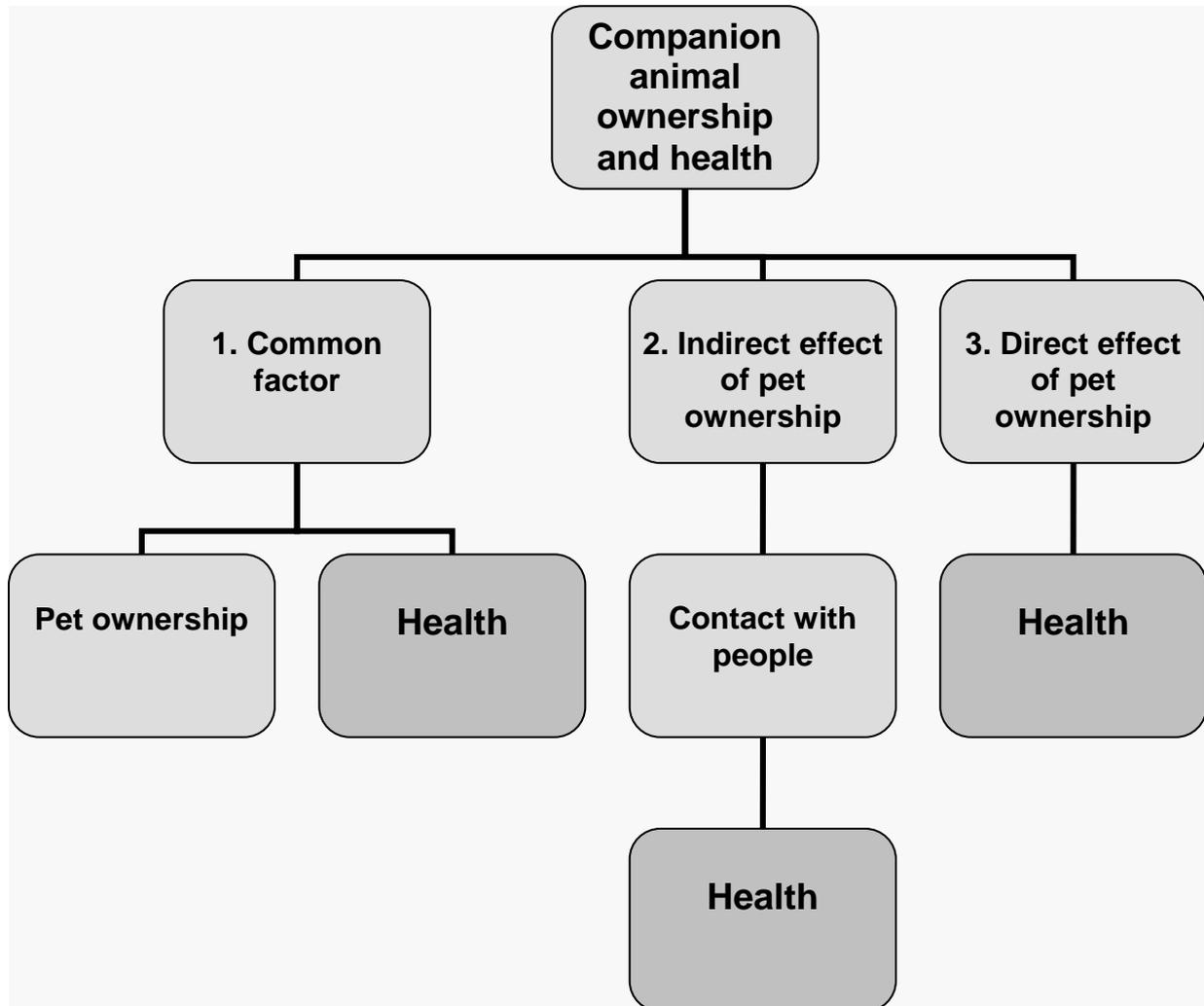
At the end of each part there is a list of relevant literature. In addition, we would like to direct the reader to the following websites:

www.americanhumane.org

www.deltasociety.org

<http://www.vet.cornell.edu/services/companions/research.htm>

Three proposed mechanisms for association between companion animal ownership and health benefits for humans



Explanations

1. There is no real association between the two, but cofactors such as personal traits, economy, desire to own a pet
2. Pets may enhance social interactions with other people, thus providing an indirect effect on wellbeing
3. Pet ownership may exert a direct effect on human health and wellbeing through the nature of the relationship

After:

McNicholas J, Gilbey A, Rennie A, Ahmedzai S, Dono J-A, Ormerod E. (2005) Pet ownership and human health: a brief review of evidence and issues. BMJ 331: 1252-5.

1. Children

Normal children

- Being attached to a pet is related to positive emotional functioning
- Both social as well as cognitive development can be enhanced by owning a pet
- Positive self-esteem of children is enhanced by owning a pet
- Pets provide social support to children

Endenburg N, Baarda B. The role of pets in enhancing human well-being: Effects on child development. In: The Waltham Book of Human-Animal Interactions: Benefits and responsibilities.

- Presence of animals increase social contact between children
- Child-companion animal interaction generally facilitate children's development

Poresky RH.(1996) Companion animals and other factors affecting young children's development. Anthrozoos 9:159-168

- Children with a strong pet bond have higher scores on empathy for children than young children without pets

Poresky RH. (1990) The young children's empathy measure: Reliability, validity and effects of companion animal bonding. Psychological Reports 66: 931-936

- Children perceive their pets as special friends, important family members and providers of social interactions, affection and emotional support
- Children state that their pets know when they are upset and that pets help them feel better

Triebenbacher SL. (1998) Pets as transitional objects: Their role in children's emotional development. Psychological Reports 82: 191-200

Children with special needs

There is increased awareness on the benefits of Pet-assisted therapy. Pets as facilitators in hospital situations are a challenge to the staff, but of benefit to the children

- Animals are helping children overcome physical and emotional challenges

Ruth R. (1992) InterActions 10: 16-18

- The presence of animals in a stressful situation causes reduced heart rate and blood pressure in children

Friedmann E, Katcher AH, Thomas SA, Lynch JJ Messent PR. (1983) Social interaction and blood pressure. Influence of animal companions. J Nerv Ment Dis 171: 461-465.

- Service dogs are valuable additions to parents raising a child with autism, especially in the areas of social acknowledgement, improved child safety and companionship.

Burrows KE, Adams CL. Service dogs for children with autism spectrum disorders: Benefits, challenges and welfare implications. Unpublished Thesis Ontario Veterinary College, University of Guelph, Ontario, Canada 2005.

Redefer L, Goodman J. (1989) Brief report: Pet-facilitated therapy with autistic children. Journal of Autism and Developmental Disorders 19: 461-467.

In hospitals:

- Pet-assisted therapy relieves stress, normalize the hospital milieu and improve patient and parent morale

Wu AS, Niedra R, Pendergast L, McCrindle BW.(2002) Acceptability and impact of pet visitation on a pediatric cardiology inpatient unit. J Pediatr Nurs 17: 354-72.

- Pet assisted therapy may be a useful adjunct to traditional pain management for children

Sobo EJ, Eng B, Kassity-Krich N.(2006) Canine visitation (pet) therapy: Pilot data on decreases in child pain perception. J Holistic Nurs 24:58-9.

Health implications in children

Recent studies have shown that the risk of adverse health effects on children exposed to pets is minimal

- Dog keeping in infancy may offer protection from allergy.

Sandin A. Development of allergy, salivary IgA antibodies and gut microbiota in a Swedish birth cohort. Dissertation Umeå University 2008.

- Pet keeping during the first year of life is not associated with an increased risk of atopy at 4 years.

Sandin A, Bjørkstén B, Bråbäck L. (2004) Development of atopy and wheezing symptoms in relation to heredity and early pet keeping in a Swedish birth cohort. Pediatr Allergy Immunol 15: 316-322.

- Pet ownership is unrelated to an increased risk of childhood leukaemia

Swensen AR, Ross JA, et al.(2001) Pet ownership and childhood acute leukemia (USA and Canada). Cancer Causes and Control 12: 301-303

- Living with a pet does was not associated with an increased risk of gastroenteritis in young children

Heyworth JS, Cutt H, Glonek G. (2006) Does dog or cat ownership lead to increased gastroenteritis in young children in South Australia? Epidemiol Infect 134: 926-934

Precautions

- When using animals in pet-assisted therapy, the animal welfare aspect must be monitored at any time.

Burrows KE, Adams CL, Millman ST. (2008) Factors affecting behaviour and welfare on service dogs for children with autism spectrum disorders. J Appl Anim Welf Sci 11: 42-62

- Children display more intense and longer duration pet bereavement than adults and must be helped to overcome the loss of a pet.

Kaufmann KR, Kaufmann ND. (2006) And then the dog died. Death Studies 30: 61-76.

- Dogs may bite children, and children are more often bitten by a dog familiar to them. A training programme for pre-school children has been developed.
www.thebluedog.org

Guidelines for Environmental Infection Control in Health-Care Facilities can be found on:
<http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5210a1.htm>

Adolescents (young people in transition)

There is a surprising lack of controlled studies on the effect of pet-assisted companionship in the adolescents. Anecdotal reports indicate a positive effect of human-animal interaction in this period, both with production animals, horses and companion animals.

Adolescence is a difficult period, and coping may be difficult even for teenagers in well-functioning families and a good social network, and even more with adolescents with special needs. When leaving the child welfare system the adolescents meet challenges that those in normal family situations do not have to handle alone. The lack of a family network may further complicate situations with feeling of loneliness and lack of support. In a majority of cases the adolescents in question originate from conditions where the parents are not able to handle the parenting situation, many being long-term clients.

Studies have shown that former child welfare clients achieve lower education levels as adults than their peers in the general population. They have lower income and are more often unemployed. More of the former clients receive social security benefits. The benefit of pet-assisted companionship in this group of people should be further investigated.

Clausen S-E, Kristofersen LB (2008) Child care clients in Norway. NOVA Report 3/2008.

Even young students experience the positive effects of companion animals. It has been found that students who live with a pet are less likely to report feeling lonely or depressed. They often rely on the animal to help them through stressful times.

<http://psychcentral.com/news/2008/12/24/pets-relieve-college-stress/3555.html>

Adults

Health implications in adults

Health benefits of pets can, although these factors overlap to some extent, be divided into.

- Therapeutic
- Psychological
- Physiological
- Psychosocial

Physical health benefits associated with pets

Compared with people without a pet, people who keep a pet have been reported to

- **require fewer visits to the doctor**
- adapt more quickly to stress associated with bereavement and other adverse events,
- have stronger emotional stability and maintain a generally sounder state of health.
- A relationship between pet ownership and higher survival rates 1 year after hospital admission for coronary heart disease has been documented.
- Bonding with a companion animal was credited with leading to beneficial effects on the human cardiovascular system.
- In patients with hypertension who were under stress, patting and talking to a pet dog or cat may have prevented increased blood pressure.
- In a study investigating risk factors for cardiovascular disease, it was found that dog owners had lower systolic blood pressure and lower levels of serum triglycerides than non-dog owners.

Alonso Y. (1999) Der einfluss von Hautiere auf die menschliche Gesundheit: Gibt e seine Zusammenhang? Gesundheitswesen 61: 45-49.

Motooka M, Koike H, Yokoyama T, Kennedy NL. (2006) Effect of dog-walking on autonomic nervous activity in senior citizens. MJA 184 (2): 60-63

Serpell JA.(1991) Beneficial effects of pet ownership on some aspects of human health. J Roy Soc Med 84: 717-720.

Friedmann E, Katcher AH, Lynch JJ, Thomas SA. (1080) Animal companions and one year survival of patients after discharge from a coronary care unit. Public Health Rep 95: 307-312.

Anderson W, Reid P, Jennings GL. (1992)Pet ownership and risk factors for cardiovascular disease. Med J Aust 157: 298-301.

The direct economic impact regarding visits to the doctor can be outlined as follows

- Annual national health expenditure in Australia would increase by \$3.86 billion (7.19 %) if pet owners visited a doctor as often as non-pet owners

Heady B, Grabska , Kelley J, Reddy P, Tseng Y (2002) Pet ownership is good for your health and saves public expenditure too: Australian and German longitudinal evidence. Australian Social Monitor 5(4), 93-99.

- In China urban women aged 25–40 who are dog owners make less than half the number of doctor visits made by non-owners, and average 2.92 fewer visits per year

Headey B, Na F, Zheng R. (2008) Pet Dogs Benefit Owners' Health: A 'Natural Experiment' in China. Social Indicators Research 87 (3) 2008, 481-493.

- Elderly people with dogs visit physicians 21% less often than do those without a dog

Siegel, Judith M (1990) Stressful life events and use of physician services among the elderly: The moderating role of pet ownership. Journal of Personality and Social Psychology. 58(6), 1081-1086.

- When hospitalised, Canadian pet owners spend on average 38% less time in hospital (8 vs 13 days)
- Expenditure for the Canadian insurance companies in order to cover health related expenses per person:
 - Pet owners: € 36 000
 - Non-owners: € 47 500

Raina, P., Bonnett, B., Waltner-Toews, D. (1998). Relationship between pet ownership and healthcare use among seniors. Presented at the 8th International Conference on Human-Animal Interactions, The Changing Roles of Animals in Society, September 10-12, 1998, Prague.

- In a country like Norway, with a population of 4 mill inhabitants, this means a net saving of € 88 million annually for the ten largest hospitals (average cost/day estimated low: € 625)
- For Belgium with 10,5 mill inhabitants, this equals € 231 million annually

Potential adverse health effects or no effect at all: This has been claimed by some researchers, however, the literature on the positive health effects and therefore the positive economic effect outnumbers the reports of adverse health effects

Parslow RA, Jorm AF, Christensen H, Rodgers B, Jacomb P (2005) Pet ownership and health in older adults: findings from a survey of 2,551 community-based Australians aged 60-64. Gerontology 51: 40-47.

Elderly

The direct health effects are similar to what is described for adults.

However, the social, thus secondarily the economical positive effect in healthcare for elderly has received increasing awareness. Elderly people constitute a segment of the population at heightened risk for a variety of physical and emotional problems. The use of specially trained companion animals in institutions are increasingly being used, and the positive effect of this intervention has been documented.

Crowley-Robinson, P., Fenwick, D.C., Blackshaw, J.K. (1996). A long-term study of elderly people in nursing homes with visiting and resident dogs. Applied Animal Behavior Science. 47:137-48.

Hendy, H.M. (1987). Effects of pet and/or people visits on nursing home residents. International Journal of Aging and Human Development. 25(4):279-91.

Akiyama H, Holtzman JM, Britz WE. (1987) Pet ownership and health status during bereavement. Omega J Death Dying 17: 187-193.

Garrity TF, Stallones L, Marx MB, Johnson TP.(1989) Pet ownership and attachment as supportive factors in the health of the elderly. Anthrozoos 3: 35-44.

Siegel JM. (1990) Stressful life events and use of physician services among the elderly: the moderating role of pet ownership. J Pers Soc Psychol 58: 1081-1086.

Mugford RS, M'Cornisky JG. (1975) Therapeutic value of cage birds with old people. In: Anderson ER, editor. Pet animals and society. London: Balliere Tindall; 54-65.

Baun MM, Bergstrom N, Langston N, Thoma L.(1984) Physiological effects of human/companion animal bonding. Nurs Res 33: 126-129.