

УДК 636.04

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The Influence of Animals on People

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During the last decade it has become more widely accepted that pet ownership and animal assistance in therapy and education may have a multitude of positive effects on humans. Among the well-documented effects of human-animal interactions (HAI) in humans of different ages, with and without special medical, or mental health conditions are benefits for: social attention, social behavior, interpersonal interactions and mood; stress-related parameters such as cortisol, heart rate, and blood pressure; self-reported fear and anxiety; mental and physical health, especially cardiovascular diseases.

At present, animal assistance in therapy, education, and care has greatly increased. Today, the value of animal-assisted interventions (AAI), including animal-assisted therapy (AAT) is widely acknowledged. In the light of the rapid development of the practice of AAI, research evaluating the effects of AAIs seem to lag behind. Still, there is already quite a body of scientific literature on this topic. Further an overview of studies assessing effects of AAI as well as pet ownership which meet certain scientific criteria will be provided [1].

Effects of Human-Animal Interaction:

1) *Effects on social interaction.* Interacting with animals influences social interaction between humans and related factors important in this respect, such as trust, empathy, aggression, and a positive mood.

2) *Increased positive social attention from others and stimulation of social behavior.* A relatively large body of research investigated the effect of a friendly animal on the perception of the human in its company and on the stimulation of social behavior. Interaction with an animal is a form of social behavior. For example, children with pervasive developmental disorders (including autism) were more playful in interaction with a live dog compared to toys, and also more aware of their social environment in the presence of the dog.

In 2009 Kramer investigated visits by a person alone, in the company of a dog, and in the company of a robotic dog (AIBO) in female nursing home residents with dementia. The visit of a person with a live dog as well as a robotic dog led to more social interaction than the person alone.

3) *Increased trust and trustworthiness.* Schneider and Harley (2006) asked college students to rate the trustworthiness of two different psychotherapists, each of them depicted once with a dog present and once without the dog in a video. When the dog was present, participants, reported more general satisfaction with the therapist as well as more willingness to disclose personal information.

4) *Reduction of aggression.* Only few results point to the potential of the presence of a friendly animal to reduce aggression in humans. In two studies, effects of the presence of friendly dogs on aggressive behavior in a classroom. In the presence of the dog, in comparison to its absence, aggressive behavior was decreased.

5) *Reduction of depression and promotion of a positive mood.* In their meta-analysis Souter and Miller (2007) conclude that animal-assisted interventions (AAT) have the potential to significantly reduce depressive symptoms.

Elderly residents of an institution experienced a reduction in depression and improvement in quality of life when caring for a canary for a period of 3 months. A companion bird also

reduced depression in elderly adults after admission to a skilled rehabilitation. Also in children and adults with physical or mental health problems animal contact can improve mood. Nathans-Barel (2005) found that a 10-week AAT-program for patients with chronic schizophrenia improved the mood in comparison with a group without AAT.

6) *Effects on blood pressure, heart rate, and heart rate variability.* In 1983 Friedmann investigated the effect of the presence of a dog on children while they were reading or resting. Blood pressure was lower when the dog was present during the entire time than when the animal was just introduced during the second half of the observation time.

Overall, most of the studies show that the presence of friendly animals, both familiar or unfamiliar, can effectively reduce heart rate and blood pressure or buffer increases in these parameters in anticipation of a stressor. These effects may even be stronger with one's own pet.

7) *Effects on anxiety and pain, reduction of fear and anxiety and promotion of calmness.* Several studies investigated whether animal contact can reduce fear and anxiety elicited by a stressor. In 2003 Shiloh first showed participants a live tarantula spider and indicated that they might be asked to hold it later on. Participants were randomly assigned to five groups, and instructed to pet either a live rabbit, a live turtle, a toy rabbit, a toy turtle, or to just rest. Only petting a live animal, but not a toy animal reduced self-reported anxiety.

8) *Effects on learning.* Little research addresses animals' positive effects on learning in children. In a series of studies, Gee and colleagues investigated the effect of the presence of a dog on children performing different tasks. A group of developmentally delayed and a group of normally developed children performed faster in a motor skill task with the same accuracy when a dog was present than when no dog was

present. According to the authors, one explanation could be that the dog served as an effective motivator, another that the presence of the dog led to increased relaxation and a reduction of stress during execution of the task thus increasing speed of performance.

9) *Effects on human health and restoration.* Already in the 1980s researchers tested the idea that pet ownership is good for the owner's mental and physical health.

In 1999 Headey and his colleagues found that dog and cat owners paid fewer annual doctor visits and were less likely to take medication for sleeping problems than non-pet owners. It was also found that pet-owning couples showed better mental and physical health than those not owning a pet.

Many of these studies generally suggest that companion animal owners have better health than non-animal owners, as indicated by medical markers such as cholesterol levels, or indirectly, via the frequency of doctor visits. However, these correlative studies do not allow making a causal connection between pet ownership and health [2].

It needs to be mentioned here that obviously the reported studies worked with an optimal setting. Stress-reducing and calming effects of dogs cannot be expected in people with a dog phobia. This self-selection limits the generalization to the entire population.

References:

1. The National Center for Biotechnology Information [Electronic resource]. – Mode of Access: <https://www.ncbi.nlm.gov/pmc/articles/PMC34011/>. – Date of access: 11.03.2019.
2. The Effects of Animals on Human Health and Well Being [Electronic resource]. – Mode of Access: <https://onlinelibrary.com/doi/abs/10.1111/j.01612>. – Date of Access: 20.03.2019.