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Review Article

Health Benefits of Human-Companion Animal Interaction: A Review

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ABSTRACT

This article provides a review of research published since 1980 on the benefits of human-companion animal interaction. Studies focusing on the benefits of pet ownership are presented first, followed by research on the benefits of interacting with companion animal that are not owned by the subject (animal-assisted activities). While most of the published studies are descriptive and have been conducted with convenience samples, a promising number of controlled studies support the health benefits of interacting with companion animals. Future research employing more rigorous designs and systematically building upon a clearly defined line of inquiry is needed to advance our knowledge of the benefits of human-companion animal interaction.

Keywords: *Benefit, Human-Companion animal interaction, Research Review.*

INTRODUCTION

Human beings have a long history of relationship with companion animals. For long time these relationships have been greatly prized among people such that they have accepted the animals as a part of their life.

Our relationships with animals are not new. Even in Ramayana and Mahabharata some instant showed that the great relationship between human and animals. In Mahabharata, when the pandavas decided to end their life, a dog was taken by eldest of pandava (Yudhistra), while they travelled to mount meru and one by one died on the way. Last was Yudhistra. When he went to the heaven, God of death refused entry for the dog, which he wanted to take along with him. Immediately, Yudhistra also declined the offer of entry. He told the guards if the dog was not allowed he would not come in. The dog was my faithful companion, I cannot abandon it (Rajagopalachari, 2010).

In Ramayana, there was an interesting relation between the animals and humans. Sampati, King of Vultures was an old friend of Dasharatha. It had a younger brother, Jatayu. Jatayu and Sampati were two characters in the great Indian epic Ramayana responsible for helping in the unfolding of events in the great war between Ravana and Lord Rama (Rajagopalachari, 2010).

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Fossil evidence from half a million years ago indicates an association between Homo erectus and a canine-like species (Messent & Serpell, 1981). Even before human beings settled into agricultural communities, they kept wild and tamed animals as companions (Savishinsky, 1983). More recently, scientists discovered a 12,000-year-old tomb in modern Israel, in which a person was buried with one arm around a puppy. The arrangement of the burial proves that an affectionate, rather than gastronomic, relationship existed between the person and the animal (Davis & Valla, 1978).

Companion animal

Companion animal give greater deal in return in the form of affectionate attachment known as human animal bond. Much has been written about the bond seen between human and companion animal usually dogs but also cats and other species. The relationship between humans and companion animal is not simple or straightforward. Most surveys of pet owners, particularly dog owners, identify companionship as the major reason for ownership and owners identify the animal as part of the family. Human being owned animal as their companion they are dog, cats, pleasure horses, birds, mice, guinea pigs and more exotic species. These animals are kept for the human company.

Companion Animals as Family Member

The majority of those with companion animal consider them as the members of their families. Considering companion animal as a family member, means that they are one of the subsystems within the complex family system and as such both influence and are influenced by every member of family system (Melson & Fine, 2015).

Family animal-human interactions can result in such behaviours as companion animals sleeping with family members, sharing family members' food, being confided in and read to and having their birthdays celebrated. "We often overlook the fact that pets are important not only for children but for every member of the family" (Levinson and Mallon, 1997).

Companion animals should be integrated into social work research, education and practice because of their interconnectedness with human beings. 90 per cent of pet owners consider their companion animals as family members (Cohen, 2002).

Cain (1983) found, in her study of the characteristics of pet relationships in 60 families, that 81 percent felt that their pets were sensitive to the moods of other family members and some related that when their family was stressed or in conflict, their pet manifested physical symptoms such as loss of appetite and diarrhoea. Thus, companion animals may mirror family tensions and critical situations.

Benefits of companion animals:- For Humans

Physiological benefits

Numerous studies highlighted physiological benefits. Pet interaction, whether active or passive, tends to lower anxiety levels in subjects and thus decrease the onset, severity or progression of stress-related conditions. Furthermore, it is thought that the 1-year survival time after myocardial infarction for our patient population was 84 percent; 78 of the 92 patients were alive one year after their hospital admission. A total of 58 percent of the subjects (53 of 92) had 1 or more pets (Friedmann, et al., 1995).

The relationship between pet ownership and 1-year survival status for the 92 patients was shown below.

Patient status	*Number patients with—*	
	No pets	*Pets*
Alive	28	50
Dead	11	3

$\chi^2 = 8.9, P < 0.002.$

In the other study evaluated the effect of pet ownership on blood pressure and heart rate before and during lisnopril therapy.

All participants completed baseline mental stress sessions in their homes after 1 month of observation had stage II hypertension (≥160/100 mm Hg). All participants then were treated with lisinopril (20 mg/d). Those assigned to the pet owner group acquired their animals at the time drug therapy began. All participants were evaluated again at 6 months with a second home mental stress session. The results are given below: Fig 1& Fig 2.

Figure 1 provides SBP (systolic blood pressure) and DBP (Diastolic blood pressure) reactivity for each task and Figure 2 provides HR (Heart rate) and Plasma rennin activity (both before and during drug therapy).

Lisinopril therapy lowered resting blood pressure and heart rate in both groups, but responses to mental stress were significantly lower among pet owners relative to those who only received lisinopril (Allen, 2001).

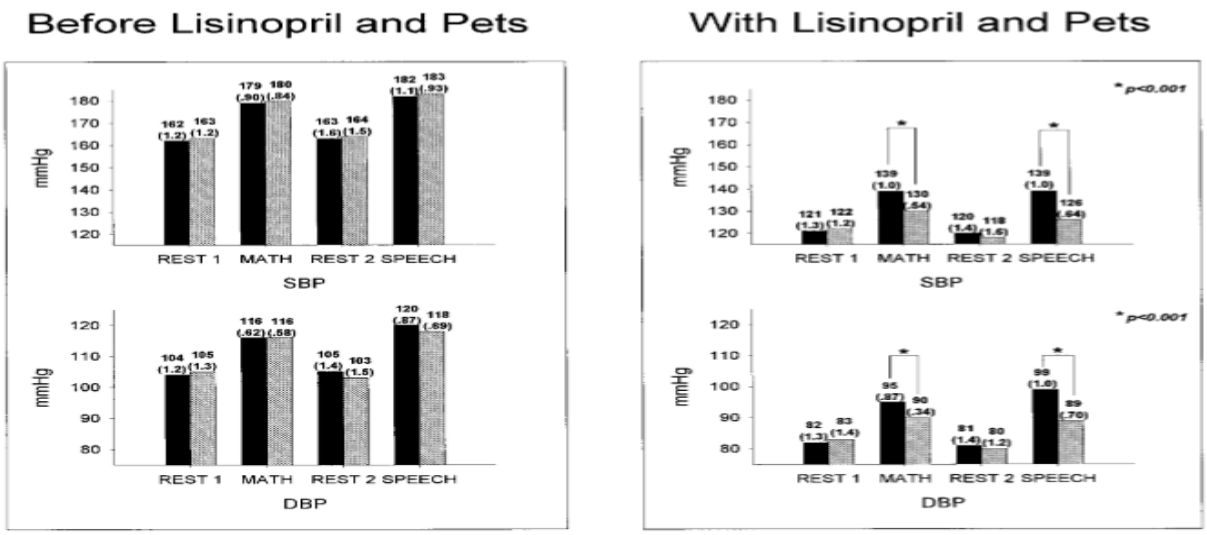

Fig. 1:

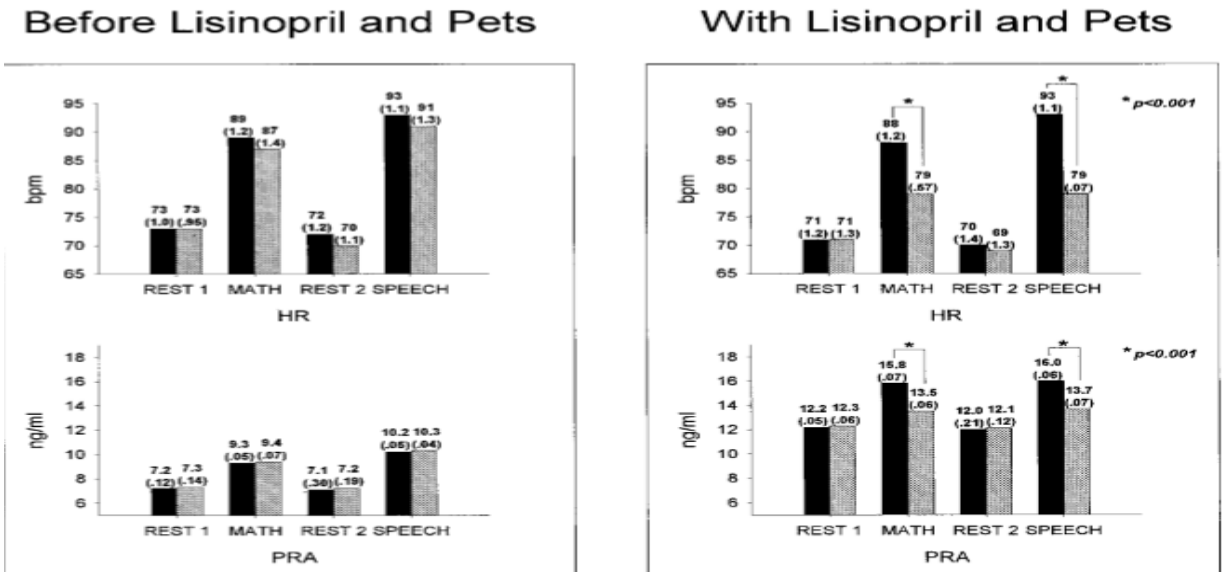

Fig. 2:

Aquarium observers tended to experience a decrease in pulse rate and muscle tension. The study conducted with participants (N=18) were residents of Maryland. Criteria for selection were that individuals had to be 62 years of age or older. The study employed a research design using pre-test and post-test control groups. The study participants were randomly assigned in two groups, each to watch a fish aquarium or a placebo videotape.

The Treatment evaluations mean scores for the fish aquarium and control groups were 12.33 and 12.23, respectively. The difference among these scores was statistically insignificant suggesting that two groups perceived their treatments as relaxing (DeSchriver, 1990).

Psychological benefits

Many studies have addressed the contribution of pets to human psychological well-being.

Patients with human immunodeficiency virus (HIV)/acquired immunodeficiency syndrome (AIDS) who own companion dogs believe that it improves their well-being and reduced psychosocial complications in addition to physical illness. Twenty-nine male veterans with a mean age of 52 years who reported having owned a dog since being diagnosed as having HIV/AIDS completed semi-structured interviews regarding pet ownership and perceived well-being. The result found that twenty-eight of the 29 participants (97%) reported that owning dogs was a positive experience. Overall, it suggests that veterans with HIV/AIDS who own companion dogs believe that it improves their well-being (Kruger et al., 2014).

Animal-assisted therapy (AAT) may have a useful role in psychiatric and medical therapies in which the therapeutic procedure is inherently fear-inducing or has a negative societal perception. In this study before their scheduled ECT treatment, 35 patients were assigned on alternate days to the treatment condition, consisting of a 15-minute AAT session, and the standard (comparison) condition, consisting of 15 minutes with magazines. Visual analogue scales were used to measure anxiety, fear and depression before and after treatment and standard conditions. A least squares mean analysis showed that AAT reduced fear by 37% and anxiety by 18%. There was no demonstrated effect of AAT on depression (Barker, 2003).

Over 40% of homeless reported that their dogs were a main means of coping with loneliness (Singer, 1995).

Benefits for the Animals

The action of stroking an animal has been found to reduce the animal's elevated heart rate. The study was conducted with variable conditional effects of a person on the heart rate of nine mongrel dogs. There were three experimental procedures: person present and playing a passive role, person present and playing an active role (petting the dog), and person present and serving as a signal for forthcoming electrical stimulation.

The order of presentation of these conditions was counterbalanced with dogs assigned randomly to one of three orders of procedures. Each procedure consisted of 50 trials (exposures to a human). On each trial, the person entered the conditioning room and stood motionless for 40 sec. The petting and shock reinforcements occurred 40 sec after the person entered the room, enabling the study of conditional heart rate changes in the interval from appearance of the person to reinforcement. (Lynch & McCarthy 1969)

The results are given in the below graph Fig 3

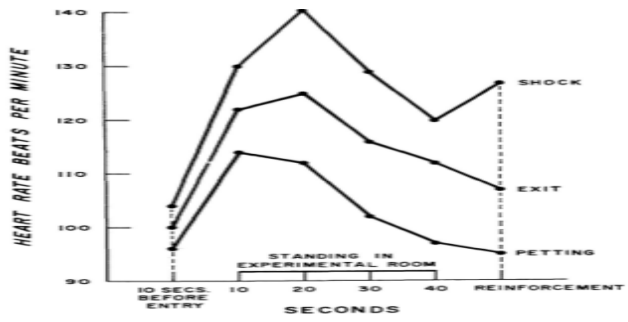

Fig. 3:

CONCLUSION

Companion animal owners have increased their survival rates. Animal-assisted interventions have been successful at improving the mental health and quality of life for persons. The field of human animal interactions has grown exponentially in a short time, but it is still in its early stage. Companion animals should be integrated into social work research, education, and practice because of their interconnectedness with humans. Human-animal interaction research is in great need. It may be necessary to conduct small-scale studies at the institutions level. Future research will be able to build and expand to conduct better-controlled experiments. To have scientists and practitioners from a variety of disciplines work together in this field.

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