

THE ROLE OF PETS IN THE HEALTH AND LIVES OF EPILEPSY PATIENTS

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The therapeutic value of animals for humans has long been recognized, receiving increased attention in the last twenty years. Lowered blood pressure, enhanced survival and increased social interactions are some of the benefits attributed to pet ownership. Recent anecdotal stories of animals detecting and signaling the onset of seizures in patients, before they themselves were aware, has sparked interest in the possible role of pets in the lives of people with epilepsy.¹

Apart from the anecdotal stories, there have been no published studies of the benefits or risks of pet ownership among people with epilepsy. The primary objectives of this study were to collect baseline data regarding the nature and frequency of pet ownership among adults with epilepsy, measure their attachment to their pets, and compare measures of quality of life, impact of epilepsy and social support networks between patients with and without pets.

Materials and Methods

All patients of the Comprehensive Epilepsy Program in 1998-99 in the Health Science Center in Syracuse, NY, 18 years and older, diagnosed with a seizure disorder, and competent to complete an interview were invited to participate. Those agreeing were interviewed by trained interviewers using a standard questionnaire.

The questionnaire requested information regarding demographic characteristics, pet ownership, pet attachment,² each patient's human support network,³ depression index,⁴ impact of epilepsy,⁵ medical history, and whether pets were perceived to detect seizure activity.

Comparisons between pet-owning and non pet-owning patients were made using Pearson's chi square of independence (for categorical data), and Student's *t* test for Normally distributed continuous data. Comparisons of Normally distributed variables among three groups were made using ANOVA, followed by Tukey's multiple range test to detect pairwise differences.

Results and Discussion

Out of 121 letters mailed to patients, 79 interviews were completed, 20 people refused and 22 people could not be reached. Sixty-seven percent of patients owned pets compared to an estimated 54.4% pet ownership among households randomly sampled from the Mid-Atlantic region of the U.S.⁶ When comparing non-owners to pet-owners there were no significant differences in demographic characteristics, social provisions scores, impact of epilepsy scores, depression scores, or frequency of seizures. Although there were no significant differences in scores between owners and non-owners, 47.1% of pet owners felt that their pet helped them cope with their epilepsy.

The association of pet attachment to depression, impact of epilepsy, frequency of seizures, etc, was also examined. Highly attached owners tended to score higher on the scales of human social support, depression (i.e., be more depressed) and the impact of epilepsy (i.e., indicate more impact of the disease). The interpretation of these results is unclear. Perhaps, people who are more depressed and feel that their disease has more impact on their lives seek out more support and comfort, both from pets and people, therefore scoring higher on both pet attachment and social support.

A small percentage (17%) of pet owners felt that their pets detected seizures. A third of these pets were dogs, while the remaining two-thirds were cats. Behaviors shown by pets included vocalizing, running in circles, jumping on the patient, and laying on top of or next to the patient. There are two recognized types of seizure detection in dogs, seizure-response and seizure-alert. In seizure-response, a dog responds to patients much as another human would, that is, they exhibit behaviors in response to the seizure. Seizure-alert dogs signal their owners of impending seizures several minutes before the seizure begins. It is probable that the majority of pets in this study were displaying seizure-response (rather than seizure-alert) behavior since most patients could not specify when, in relation to a seizure, their pet began to signal. This suggests that these patients had already begun to seizure. In some cases the patients were only aware of the signaling because a family member told them, or they reported finding the pet with them, displaying these behaviors when they recovered.

Pet ownership appears to help some epilepsy patients cope with their disease, presumably by offering companionship, and in a small number of patients, responding to their seizures. Patients with a greater tendency towards depression and those believing that their disease has negatively influenced their lives appear to have the strongest social support networks, and be most attached to their pets. This suggests that pets can be an important additional source of support for some patients.

References

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