## The Animal Studies Repository

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July 3, 2017

# Large Study Finds Pet Owners Are Different 

Harold Herzog, Animal Studies Repository

# Large Study Finds Pet Owners Are Different 

New research helps explain health difference between pet owners and non-owners.
Posted Jun 12, 2017

You've read the headlines: "Puppy Love: Pet Owners Are Happier, Healthier" and "How Pets Save Us Billions Every Year In Health Care Costs!" It is true that a lot of studies have reported that pet owners have better physical and mental healththan people who do not live with companion animals. But, as I have pointed out in previous Psychology Today posts, the results of this body of research have been mixed (here and here). Further, we do not don't know whether getting a pet causes better health, or whether the causal arrow points in the other direction. In other words, pet owners might be different to begin with. If so, non-pet-related differences such as socioeconomic status might be the real cause of better health in companion animal owners. For example, people who are married, White, female, and wealthy have lower death rates. If individuals with these characteristics are also more likely to live with pets, we could wrongly conclude that it is dog or cat ownership that makes them live longer.

So if we really want to understand the effects of companion animals on human health, we also need to know how pet owners and non-pet owners differ in terms of basic demographics. Investigators from the Rand Corporation and UCLA used a large data set to address this question. Recently published in the journal PLOS One, their research report offers important insights into the differences between pet and non-pet owners and the impact of pets on our health.

## "Big Data" Shows Pet Owners Are Different

To study differences between pet owners and non-owners, the researchers turned to a huge data set, the on-going California Health Interview Survey. Begun in 2001, it is the nation's largest state-wide comprehensive health survey. The CHIS involves telephone interviews with randomly selected Californians. The interviews are conducted in five languages, and the sample is highly representative of the population of Californians in terms of sex, race, household composition, and income. In addition to basic questions related to health and demography, the 42,044 adults interviewed in the 2003 CHIS survey were also asked about dog and cat ownership.

About half of the individuals interviewed in 2003 lived with a pet: 26 percent of the respondents owned a dog, 22 perecnt owned a cat, and 9 percent owned both a dog and a cat. The researchers presented their results using statistics called "odds ratios." Here is summary of some of the results:

- Married people are more likely to have pets. The odds that a married person owned a dog were 34 percent higher than the odds for a non-married person, and 9 percent higher for owning a cat.
- Women are more likely to keep pets. The odds that a woman owned a dog were 8 percent higher than the odds a man owned a dog, and they were 16 percent higher for owning a cat.
- Large racial and ethnic differences exist in pet ownership. Whites were about 3 times more likely to own a dog and nearly 5 times more likely to own a cat when compared to non-Whites. In
contrast Black respondents were half as likely to own a dog and less than a third as likely to own a cat as non-Black participants. The pet ownership patterns of Hispanic and Asian respondents were similar to that of Black respondents.
- Pet keeping is more common among homeowners. Homeowners were almost three times more likely to own a dog, and the odds that a homeowner had a cat were 60 percent higher than the odds for non-home owners.
- Wealthy people are more likely to live with pets than poor people. Individuals in higher income brackets were significantly more likely to own dogs and to own cats.


## But, Are Pet Owners Healthier?

Some of the big surprises in the study were related to health. The respondents were asked to rate their general health on a scale on which $5=$ excellent, $4=$ very good, $3=$ good, $2=$ fair, and $1=$ poor. They were also asked about their height and weight, and whether they were currently suffering from asthma.

- General Health - As shown in this graph, the general health ratings of dog and cat owners were slightly higher than of non-pet owners. But this difference vanished when factors like income, race, and marital status were taken into consideration. In short, there was no evidence of a positive impact of pet ownership per se on the general health of the 42,000 participants in the study.
- Body Mass Index - Dog owners had higher BMIs than non-pet owners. But while "statistically significant," this difference was so small as to be meaningless. Cat ownership was not related to BMI.
- Asthma - At the time they were interviewed, respondents with asthma were more likely to live with a pet. Specifically, the odds that someone suffering from asthma had a dog or a cat were 20 percent higher than someone without asthma.


Source: Graph by Hal Herzog
In short, when demographics and socio-economic factors were controlled for, the researchers found no evidence that pet ownership was related to better health in the respondents.

## Why This Study Is Important

As the authors point out, their study has some limitations. The data is over a decade old, the study was done in California, and the researchers did not have information on how long the participants had lived with pets. And, as is true of nearly every study of the impact of pets on health, the study is, in stat-speak, "correlational." This means we cannot conclude, for example, that living with a dog or cat causes an increase in your chances of getting asthma.

The study, however, is important for several reasons. First, it demonstrates that differences in demography and income can erroneously lead us to conclude that pets are good for human health when, in reality, other factors are at play. My guess is that much of the presumed positive impact of pets on our health is really due to the fact that wealthy White people have access to better food, housing, and medical care, and that they are also more likely to live with companion animals. For example, according to a recent study by the Brookings Institute, individuals in the top 10 percent of income earners live, on average, a decade longer than people in the bottom 10 percent. And people on the top rungs of the economic ladder are much more likely to have pets than people on the bottom rungs.

Second, the study calls into question the existence of any positive association between pets and the general health of the respondents. The researchers found that once factors like race, marital status, and income were taken into account, the health of dog and cat owners was no different from nonowners. And with over 40,000 participants in the study, the researchers would have detected even a very small positive impact of dogs or cats on general health.

So, according to this study, the answer to the question, "Are pet owners different?" is Yes when it comes to demographics and lifestyle, but No when it comes to health. Go figure....

Post script: While they don't make the headlines, as I described in this article, several large studies have also reported that pet owners were no better off, and some cases were worse off, than non-pet owners. And if you are a researcher, the full text of the PLOS One paper discusses the "propensity score weighting method" as an improved technique for analyzing the impact of pets on human health.

## References

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