

## Pet ownership: good for health?

*Pets probably do confer health benefits, but we don't know precisely how*

IN THE CURRENT ISSUE of the Journal (page 466), Parslow and Jorm<sup>1</sup> reopen the debate about whether pets benefit human health. They give the results of a high quality Australian sample survey indicating that pet owners do not have lower blood pressure than non-owners, and, in this respect at least, are not at lower risk of heart disease. Their results run counter to an earlier Australian study,<sup>2</sup> based on a large volunteer sample, in which pet owners were found to have lower blood pressure and cholesterol levels.

Where are we up to in this debate — are we back to square one? The case I will present here is that we can be fairly confident that pets do confer health benefits, but we do not know exactly how. Several types of research by very different kinds of scientists — medical scientists and social scientists — have been conducted on this topic. These scientists have different understandings of causation (ie, of what it means to claim that pets cause their owners to have better health), and, because of this, it is difficult to have a meeting of minds. However, it can be argued that social science research forms a natural prelude to medical research, and that the social science evidence in favour of health benefits of pet ownership makes it worthwhile to mount a substantial medical research effort to discover how the benefits occur.

Social science surveys in Australia,<sup>3</sup> Britain,<sup>4</sup> Germany<sup>5</sup> and the United States<sup>6</sup> during the 1990s have come pretty close (in social science terms) to establishing that pets produce health benefits. The first surveys were cross-sectional (ie, they provided snapshot evidence at one point in time). With some exceptions, they showed that pet ownership is associated with better self-reported physical and psychological health, and also fewer doctor visits. Controlling for the main demographic variables associated with health problems, including sex, age, marital status, education and income, did not change the results.

Of course, social scientists recognised that causation might run the other way round, or even both ways. It was possible that people who were healthy and happy in the first place tended to acquire pets, rather than that having a pet caused better health. So, as a next step, efforts were made to design valid longitudinal studies (ie, studies following people over a period of time) to see whether owning a pet made a difference. The strongest positive evidence has come from the German Socio-Economic Panel Survey,<sup>5</sup> which asked a sample of about 10 000 respondents about pet ownership in 1996 and again in 2001. Controlling for health status in 1996 (as well as for the usual demographic variables), it was found that people who continuously owned a pet reported the fewest doctor visits (in the 3 months before interview), and those who had acquired a pet during the 5-year period reported the next fewest number of visits. Both these groups went to the doctor about 10% less often than people who did not have a pet at either time, or who had ceased to have

---

*... the benefits of pets appear linked to the human desire to be close to nature ...*

---

a pet. The German sample is very large and most of the questions are about income and work, so the respondents could not possibly have suspected that the researchers were looking for a link between pets and health. Similar results were found in a smaller Australian longitudinal study, although here the evidence was based on recall, not on repeated interviews.<sup>5</sup> Because the German and Australian results came from national representative samples, it was possible to make preliminary estimates of savings in national health expenditure arising from lower use of medical services by pet owners.

A second type of study is based on examining the effects of *interventions* (either natural or intentional), and thus takes the causal reasoning further. An American study of heart attack victims showed that those with pets at home were twice as likely to survive for a year.<sup>7</sup> A British longitudinal study involved giving a pet to people who had not recently owned one and following their lives for 10 months.<sup>4</sup> The new pet owners showed improvements in physical and mental health, and dog owners took more exercise. A control group who did not

own pets showed no change. The study could perhaps be criticised on the grounds that the new pet owners might have known or suspected why they were given pets. The same cannot be said of an American longitudinal study of Medicare enrollees that measured the impact of adverse life events (eg, bereavement or marital separation) on mental health.<sup>6</sup> Pet owners coped significantly better.

But medical researchers want better evidence of causation than this. They want to know precisely which medical conditions, if any, are improved by pet ownership, and, ideally, they want to understand things at the molecular level. It has to be said that research along these lines has made only limited progress. The American heart attack study<sup>7</sup> is relevant here, and, although criticised, has since been replicated.<sup>8</sup> On the other hand, studies of blood pressure,<sup>1,2</sup> and of the potentially anxiety-reducing effects of pets,<sup>9,10</sup> have yielded contradictory results.

Arguably then, the state of debate is that pets probably do confer health benefits, but we don't know precisely how. Continuing medical research is needed to move things forward. At a fundamental level, the benefits of pets appear linked to the human desire to be close to nature and other living creatures. The famous zoologist Edward O Wilson has called the belief that humans need and benefit from closeness and companionship with other species "the biophilia hypothesis".<sup>11</sup> About 50% of adults and 70% of adolescents who own pets report that they confide in them.<sup>12</sup> It is most unlikely that all this communication and companionship is wasted.

**Bruce Headey**

Principal Research Fellow, Melbourne Institute of Applied Economic and Social Research, University of Melbourne, Melbourne, VIC

**Competing interests:** I have acted as a paid consultant to Petcare Information and Advisory Service Australia Pty Ltd, which is funded by the pet food company Uncle Ben's.

1. Parslow RA, Jorm AF. Pet ownership and risk factors for cardiovascular disease: another look. *Med J Aust* 2003; 179: 466-468.
2. Anderson WP, Reid CM, Jennings GL. Pet ownership and risk factors for cardiovascular disease. *Med J Aust* 1992; 157: 298-301.
3. Headey B. Health benefits and health cost savings due to pets: preliminary results from an Australian national survey. *Soc Indicators Res* 1999; 47: 233-243.
4. Serpell JA. Beneficial aspects of pet ownership on some aspects of human health and behaviour. *J R Soc Med* 1991; 84: 717-720.
5. Headey B, Grabka M, Kelley J, et al. Pet ownership is good for your health and saves public expenditure too: Australian and German longitudinal evidence. *Aust Social Monitor* 2002; 4: 93-99.
6. Siegel JM. Stressful life events and use of physician services among the elderly: the moderating effects of pet ownership. *J Pers Soc Psychol* 1990; 58: 1081-1086.
7. Friedmann E, Katcher AH, Lynch JJ, Thomas SA. Animal companions and one year survival of patients after discharge from a coronary care unit. *Public Health Rep* 1980; 95: 307-312.
8. Friedmann E. Pet ownership, social support and one year survival after acute myocardial infarction in the cardiac arrhythmic suppression trial, CAST. *Am J Cardiol* 1995; 76: 1213-1217.
9. Allen KM, Blascovich J. Presence of human friends and pet dogs as moderators of autonomic responses to stress in women. *J Pers Soc Psychol* 1991; 61: 582-589.
10. Kingwell BA, Lomdahl A, Anderson WP. Presence of a pet dog and human cardiovascular responses to mild mental stress. *Clin Auton Res* 2001; 11: 313-317.
11. Wilson EO. *Biophilia: the human bond with other species*. Cambridge: Harvard University Press, 1984.
12. Frumkin H. Beyond toxicity: human health and the natural environment. *Am J Prev Med* 2001; 20: 234. □