Relations Between Companion Animals and Self-Reported Health in Older Women: Cause, Effect or Artifact?

Nancy A. Pachana, Jessica H. Ford, Brooke Andrew, and Annette J. Dobson

A large longitudinal dataset on women’s health in Australia provided the basis of analysis of potential positive health effects of living with a companion animal. Age, living arrangements, and housing all strongly related to both living with companion animals and health. Methodological problems in using data from observational studies to disentangle a potential association in the presence of substantial effects of demographic characteristics are highlighted. Our findings may help to explain some inconsistencies and contradictions in the literature about the health benefits of companion animals, as well as offer suggestions for ways to move forward in future investigations of human–pet relationships.

Key words: companion animals; women’s health; epidemiology; methodology; sociodemographics

Animals are such agreeable friends—they ask no questions, they pass no criticisms.
George Eliot, Scenes from Clerical Life (1857)

Characteristics of Pet Owners

The literature examining relations between ownership of companion animals and health and well-being is inconsistent. The relationships between participants and their pets, measures used to determine health and well-being, analyses used, and conclusions drawn all vary widely. The types of studies reported range from anecdotal case reports and small observational studies to large-scale epidemiological studies. Although much of the descriptive literature tends to support the benefits of animal companionship, large-scale analytic studies yield inconsistent and even contradictory findings.

The literature has been most informative and least controversial on the issue of the demographic and social context variables associated with ownership of companion animals. For example, data from a number of sources characterize pet owners as younger and more likely to be married and living with children than non–pet owners (American Veterinary Medical Association, 1993; McHarg, Baldock, Headley, & Robinson, 1995). Studies conducted with older adults (aged about 60 years and older) show a similar pattern (Lawton, Moss, & Moles, 1984; Raina, Walter-Toews, Bonnett, Woodward, & Abernathy, 1999; Simons, Simons, McCallum, & Friedlander, 2000). Pet owners are also more likely to reside in unattached houses than any other type of dwelling (Lawton et al., 1984; Netting, Wilson, & Fruge, 1988; Raina et al., 1999; Wells & Rodi, 2000), with the size of the yard associated with the dwelling another important factor in determining pet ownership (McHarg et al., 1995). Gender also influences pet ownership, with women and those with a more sedentary lifestyle more likely to own cats than dogs (Friedmann & Thomas, 1995; Serpell, 1991). Finally, although several studies report no differences in socioeconomic status (SES) between pet owners and non–pet owners (McHarg et al., 1995; Raina et al., 1999; Simons, McCallum, & Simons, 1997), Parshall and Jorm (2003), using education as a marker of SES, found that pet owners had less education than non–pet owners. In addition, surveys of older people suggest that having a lower income is a contributing factor to nonownership of pets (Lawton et al., 1984; Wilson & Netting, 1987).

The benefits reported from companion animals are generally consistent with the benefits identified through research into social support and attachment and suggest that human–pet companionship may promote health and positive well-being in ways similar to human–human interactions (Garrity & Stallones, 1998; Garrity, Stallones, Marx, & Johnson, 1989; Ory & Goldberg, 1983). Human–pet interactions, like human social relationships, may contribute to emotional and social well-being (Sable, 1995). The provision of emotional support by pets across a range of groups, including children, adolescents, single women, and the elderly, has been demonstrated in many studies.
Health Benefits and Companion Animals

The results of studies examining the role of companion animals in health outcomes are varied. This literature is for the most part comprised of studies that have pet ownership as a variable, controlled to some extent but not truly "experimental" in design. A truly experimental study of pet ownership would include random assignment of companion animals, because many variables can lead individuals to either own or not own pets. Also, ideally such experimental systems should be as close as possible, to eliminate as many sources of error variance as possible. For example, looking at individuals' responses to pictures of animals could be considered experimental in nature (Lipp, Derakshan, Waters, & Logies, 2004); exploring the difference between blood pressure when a companion animal is or is not present with their owner meets these basic criteria (Eddy, 1996). However, the latter studies, although more experimental in nature, do not have explicit health outcomes.

The common practice of reporting health benefits in groups of pet and non-pet-owning samples does not meet these criteria for experimental research, being largely correlational in nature. For example, Allen, Blascovich, and Mendes (2002) examined pet and non-pet owner's cardiovascular reactivity in the face of a variety of stressor conditions (e.g., mental arithmetic tasks). The results largely demonstrate that pet owners' responses were different than non-pet owners, but because pet ownership was not experimentally manipulated, the results could also reflect differences in the groups rather than an effect of how pets are viewed (as social support mechanisms in stressful situations) or that pets somehow buffer stress responses more generally.

Truly experimental research on the effects of pet ownership on health outcomes is rare. An earlier study by Allen, Shykoff, and Izzo (2001) does satisfy these criteria. In this study, half of a non-pet-owning sample (stockbrokers with hypertension) were randomly assigned to adopt a pet cat or dog. All were started on antihypertensive medication, which was effective in lowering blood pressure. However, the participants who had acquired an animal demonstrated smaller blood pressure increases while under stress than those participants who had not acquired a pet.

The majority of the extant literature then can best be described as observational or quasiexperimental in nature rather than being truly experimental. The studies cited later, and this study, fall into this category. If the data from such studies are interpreted with caution, and their methodological limitations carefully considered, then potential avenues for future, possibly experimental research on these issues, such as the study by Allen et al. (2001), can be pursued.

Pet ownership has also been explored in the epidemiological literature. Simons et al. (2000) reported the results of a longitudinal study of older people as showing no significant relation between pet ownership and all-cause mortality. A lack of positive changes in physical and mental health, and psychological well-being has also been reported in another longitudinal study (Raina et al., 1999). Friedmann and coauthors (Friedmann, Katcher, Lynch, & Thomas, 1980; Friedmann & Thomas, 1995) have found pet ownership to be associated with better survival among cardiac patients, whereas other investigators (e.g., Anderson, Reid & Jennings, 1992) found pet owners had lower levels of cardiovascular risk factors. Limited support for better mental health among cat owners compared to non-cat owners was found by Straede and Gates (1993). Simple acquisition of pets has also been linked to positive outcomes (Serpell, 1991).

Results are similarly mixed when the extent of attachment to pets is examined ( Parslow & Jorm, 2003; Sable, 1995; Serpell, 1991; Stallones, Marx, Garrity, & Johnson, 1991). Diversity of conceptualizations of pet attachment, atheoretical development of such measures, and little psychometric support for some pet attachment scales limits their utility. Melson (1989) among others highlights the need for more rigorous methodology in the development and use of scales to measure attachment to pets.

Pets may buffer the impact of stress, thereby improving or maintaining good health. Raina et al. (1999) suggest that pet ownership appeared to buffer the negative impact of lack of social support on psychological well-being. In a longitudinal study of stressful life events on physician utilization behavior, Siegel (1990) found that respondents who owned pets reported fewer doctor contacts over the 1-year period than non-pet owners. The positive buffering effects of pets on children suffering posttraumatic stress reactions were reported by Arambasic, Kerestes, Kucerovac-Jagodic, and Vizek-Vidovic (2000).

Pet ownership has been found to be associated with physical activity. Anderson et al. (1992) found that pet owners were significantly more likely to report taking vigorous exercise three or more times per week than non-pet owners. Similarly, Wells and Rodi (2000) reported that people who owned dogs rated themselves as being more physically active than others their age. Other large-scale studies, however, have found no significant differences in physical activity between pet owners and non-pet owners (Parslow & Jorm, 2003; Simons et al., 2000). Indeed, Bauman, Russell, Furber, and Dobson (2001) found that, in general, dog owners are not more active than nonowners unless they are part.
of the small minority that practice regular, sustained
dog walking. In a longitudinal sample, Simons et al.
(2000) found that pet ownership was not significantly
related to activity of daily living (ADL) levels at fol-
low-up, whereas a Canadian longitudinal study (Raina
et al., 1999) found that pet owners reported a relatively
higher ADL level than non-pet owners.

Finally, it has been suggested that the benefits of
companion animals are apparent only in certain situa-
tions or circumstances (Garriott & Stallones, 1998). For
example, in their study of the associations between pet
ownership and aspects of psychological well-being in
older women, Ory and Goldberg (1983) found that
among those with high SES, pet ownership was posi-
tively associated with happiness although pet owner-
ship was negatively related to happiness among those
of lower SES. In addition, some studies have suggested
that improvements in psychological well-being and so-
cial interaction associated with pet companionship
may be more marked for those who live alone than for
those living with others (Goldmeier, 1986; Kiel, 1998;
McHarg et al., 1995). Other investigators however,
have suggested that those who appear to benefit most
from pets are likely to already be well supported in
their social relationships (Wells & Rodi, 2000).

Methods

The Australian Longitudinal Study on Women’s
Health (ALSWH) is a survey of the health and well-be-
ing of three cohorts of women who were aged 18–23
years (younger cohort), 45–50 years (mid-age cohort),
and 70–75 years (older cohort) when recruited in 1996
and who will be followed longitudinally for 20 years.
The study uses mailed questionnaires to collect self-re-
port data on health and related variables. Each age co-
hort is surveyed every 3 years. The overall goal of the
ALSWH is to understand factors that affect the health
and well-being of women.

Women were selected from the Australian national
health insurance database (Medicare), which includes
almost all citizens and permanent residents. Stratified
random sampling was used with intentional oversampling of women from rural and remote areas.
Details of the cohorts and recruitment methods have
been described elsewhere (Brown et al., 1998).

Only the older women were asked in more than one
survey if they lived with pets so only this cohort is dis-
cussed in this article. However, because the effects of
pets on such vulnerable population subgroups as older
women have been documented in the literature, the
analysis of this cohort is of value. Survey 1 was com-
pleted by a total of 12,432 women in the older cohort.
Of these, 7,952 women completed both Survey 2
(1999) and Survey 3 (2002), which included questions
about pets. These women were 73–78 years old at Sur-
vey 2 and 76–81 years old at Survey 3. When partici-
pants with missing data were dropped, a final sample
size of 6,404 women remained. This total is the basis
for subsequent analyses in this article.

Confounding and Effect Modification

In most of these studies on the relation between
companion animals and health, although socio-
demographic characteristics are measured and dis-
cussed and the potential impact of these variables on
health and well-being is noted, the impact of such vari-
ables on pet ownership itself are only mentioned in
passing and have not been fully explored. For example,
increasing age is associated with increased risk for
physical morbidity and is also associated with in-
creased risk of moving to institutional care settings.
Both decreased physical health and a move to assisted
care can be associated with cessation of pet ownership
irrespective of the wishes of the owner and irrespective
to attachment bonds. Similarly, most pet owners live
with other people and it is difficult to disentangle the
benefits and emotional support derived from animals
and people. It is also possible that variations across
studies in regard to sociodemographic variables may
account for the inconsistent findings on the effects of
companion animals on health.

In this article we examine both cross-sectional and
longitudinal associations between pet ownership and
physical and mental health while controlling for demo-
graphic characteristics and other potential modifying
factors. This objective also assists in identifying meth-
odological problems that may result in inconsistent
findings in this research area.

Instruments

For Survey 2, women were asked: “Do you have any
pets in your household?”; possible responses included
no pet, dog, cat, fish, horse, bird, other. For Survey 3
women were asked the same question but with fewer
possible response categories: no pet, dog, cat, bird,
other. Because the focus of the ALSWH is general
health outcomes rather than companion animals, a
scale of attachment to pets was not used. Women were
categorized into four groups at both surveys: no pet,
dog, cat, and other (including birds, fish, and other ani-
mals). If more than one pet was reported, respondents
were assigned to a single category in a hierarchical
fashion, with the hierarchical order being no pet, dog,
cat, and other (e.g., women with a dog and cat were
assigned to the dog category). A small number of women
also changed pet ownership categories from Survey 2
to Survey 3.

The widely used, reliable, and well-validated Medi-
cal Outcomes Study’s Short Form Functioning and
Well-Being profile (SF-36) is used in the ALSWH (Ware & Sherbourne, 1992; for a comprehensive review of the scale see Ware, 1999). For these analyses the Physical Functioning (PF) and Mental Health (MHI) subscales were used as outcome measures.

Sociodemographic variables were chosen to reflect those cited in previous literature (e.g. Raina, et al., 1999), which demonstrated relations with animal companionship and which were collected in the ALSWH. Explanatory factors included in both cross-sectional and longitudinal analyses were level of physical activity, ability to manage on available income, area of residence, living arrangements, housing, and moved house in the last 3 years.

Statistical Analyses

Analyses were performed using SAS version 8.02. To examine the cross-sectional associations between companion animal status and the various sociodemographic variables, analyses were performed using the SAS procedure FREQ. The results are reported from Survey 2 only. To estimate the effects of companion animal status and various sociodemographic variables on MHI and PF, random effects models were used to analyze the data simultaneously from Surveys 2 and 3. From these models, fitted using the SAS procedure MIXED, we estimated mean effects and 95% confidence limits for MHI and PF by companion animal status at each survey, adjusted for all other factors in the model. Post hoc comparisons of pairwise differences were used to identify significant effects.

Results

Table 1 shows strong associations between living with a companion animal and household arrangements, including type of housing, area of residence, and ability to manage on their income. Companion animal status was also related to levels of physical activity, although the patterns were inconsistent. Many of these variables are also strongly related to both mental and physical health (Lee, 2001; Mishra, Ball, Dobson, Byles, & Warner-Smith, 2002). Therefore, confounding is potentially an issue with respect to pet ownership and sociodemographic variables.

<table>
<thead>
<tr>
<th>Variable and p value</th>
<th>N=6,404</th>
<th>% total</th>
<th>Companion Animal Status</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>No Pet (n=4,094)</td>
</tr>
<tr>
<td>Level of physical activity (p = .04)</td>
<td>1,790</td>
<td>28.0</td>
<td>27.1</td>
</tr>
<tr>
<td>Low</td>
<td>1,051</td>
<td>30.5</td>
<td>16.5</td>
</tr>
<tr>
<td>Moderate</td>
<td>1,054</td>
<td>16.5</td>
<td>18.0</td>
</tr>
<tr>
<td>High</td>
<td>1,384</td>
<td>21.6</td>
<td>21.1</td>
</tr>
<tr>
<td>Missing</td>
<td>225</td>
<td>3.5</td>
<td>3.4</td>
</tr>
<tr>
<td>Moved house (p &lt; .0001)</td>
<td>5,773</td>
<td>90.2</td>
<td>88.7</td>
</tr>
<tr>
<td>No</td>
<td>631</td>
<td>9.8</td>
<td>11.3</td>
</tr>
<tr>
<td>Yes</td>
<td>5,142</td>
<td>90.2</td>
<td>87.4</td>
</tr>
<tr>
<td>Manage on income (p &lt; .0001)</td>
<td>316</td>
<td>4.9</td>
<td>4.4</td>
</tr>
<tr>
<td>Impossible/difficult all the time</td>
<td>1,243</td>
<td>19.4</td>
<td>17.4</td>
</tr>
<tr>
<td>Not too bad</td>
<td>3,307</td>
<td>51.6</td>
<td>52.4</td>
</tr>
<tr>
<td>Easy</td>
<td>1,538</td>
<td>24.0</td>
<td>25.9</td>
</tr>
<tr>
<td>Living arrangements (p &lt; .0001)</td>
<td>2,624</td>
<td>41.0</td>
<td>43.6</td>
</tr>
<tr>
<td>No one</td>
<td>3,331</td>
<td>52.0</td>
<td>51.9</td>
</tr>
<tr>
<td>Spouse/partner</td>
<td>263</td>
<td>4.1</td>
<td>2.0</td>
</tr>
<tr>
<td>Own children</td>
<td>186</td>
<td>2.9</td>
<td>2.5</td>
</tr>
<tr>
<td>Area of residence (p &lt; .0001)</td>
<td>4,884</td>
<td>76.3</td>
<td>70.0</td>
</tr>
<tr>
<td>House</td>
<td>1,059</td>
<td>16.5</td>
<td>20.4</td>
</tr>
<tr>
<td>Flat/uns/flat/apartment</td>
<td>371</td>
<td>5.8</td>
<td>8.1</td>
</tr>
<tr>
<td>Retirement village</td>
<td>90</td>
<td>1.4</td>
<td>1.5</td>
</tr>
<tr>
<td>Other/mobile home/caravan</td>
<td>2,722</td>
<td>42.5</td>
<td>44.3</td>
</tr>
<tr>
<td>Large rural</td>
<td>751</td>
<td>11.7</td>
<td>11.8</td>
</tr>
<tr>
<td>Other rural/remote</td>
<td>1,952</td>
<td>30.5</td>
<td>28.3</td>
</tr>
</tbody>
</table>
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Table 2 presents estimates of mean levels of PF and MHI, adjusted for various sociodemographic variables, by companion animal status at Surveys 2 and 3. Although the differences between categories were only marginally significant (PF: p = .043), post hoc comparisons revealed clear declines in PF from Survey 2 to Survey 3 (p < .0001) for all categories of companion animal status except other, for which p = .035. In contrast, all of the sociodemographic variables, except area of residence and moved house, were strongly associated with differences in PF (p < .0001). Companion animal status was not associated with differences in mental health scores at Surveys 2 or 3.

Table 3 presents the results of analyses examining associations between change in companion animal status and mean levels of PF and MHI across the two surveys. The differences in PF between categories of changed pet ownership (e.g., moving from owning no pet to Survey 2 to owning a pet at Survey 3) were marginal (p = .09) and small compared to the overall decline in physical functioning as a result of the passage of time. The declines in PF on post hoc comparisons of pairwise differences were significant (p < .0001) for all four categories of changed pet ownership. There were no significant differences in MHI associated with changes in companion animal status.

The question used in the ALSWH surveys only asked whether the women lived with a companion animal and not who was the primary caretaker of the animal. However, when data from women who lived alone (and therefore presumably did care for the animal) were analyzed separately, the results did not differ from the main findings reported. Similarly, given the purported effects of exercise on health and the role of dog ownership in increasing physical activity, women in the dog and cat categories were examined for differing effects on physical activity; however, no specific effects of dog or cat companion status were found.

The analyses were also conducted without adjustment for other demographic factors. The results did not differ much from the adjusted means shown in Tables 2 and 3, implying that effect modification is not a complete explanation for the lack of effects of pet ownership.

Discussion

Our analyses of the relations between living with a companion animal and mental and physical health appeared to be subject to the effects of demographics, both on associations with mental and physical health variables themselves and on the likelihood that a woman would be living with a companion animal at all. Women who live in family situations (not only with their spouse or partner), in houses (rather than apartments, retirement villages, or aged care facili-

Table 2. Adjusted Means for Physical Functioning* (PF Subscale of SF36) and Mental Health Index^ (MHI Subscale of SF36) by Categories of Living With a Companion Animal

<table>
<thead>
<tr>
<th>Companion Animal Status</th>
<th>PF (p = .043)</th>
<th>MHI (p = .36)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Survey 2</td>
<td>Survey 3</td>
</tr>
<tr>
<td>No pet</td>
<td>64.3 (63.6, 64.9)</td>
<td>59.3 (58.6, 59.9)</td>
</tr>
<tr>
<td>Dog</td>
<td>64.4 (63.3, 65.5)</td>
<td>58.6 (57.4, 59.7)</td>
</tr>
<tr>
<td>Cat</td>
<td>63.0 (61.4, 64.5)</td>
<td>58.8 (57.2, 60.4)</td>
</tr>
<tr>
<td>Other</td>
<td>61.9 (60.1, 63.7)</td>
<td>59.6 (57.7, 61.6)</td>
</tr>
</tbody>
</table>

*PF model: Other variables in model and significance levels: manage on income (p < .0001), level of physical activity (p < .0001), area of residence (p = .09), living arrangements (p = .02), moved house (p = .11) at Surveys 2 and 3.
^MHI model: Other variables in model and significance levels: manage on income (p < .0001), level of physical activity (p < .0001), housing (p = .01), area of residence (p = .01), living arrangements (p < .0001), moved house (p = .20) at Surveys 2 and 3.

Table 3. Adjusted Means for Physical Functioning* (PF Subscale of SF36) and Mental Health Index^ (MHI Subscale of SF36) for Categories of Changes in Living With a Companion Animal Across Surveys

<table>
<thead>
<tr>
<th></th>
<th>PF (p = .09)</th>
<th>MHI (p = .14)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Survey 2</td>
<td>Survey 3</td>
</tr>
<tr>
<td>No pet → no pet</td>
<td>64.0 (62.9, 65.1)</td>
<td>59.1 (58.0, 60.2)</td>
</tr>
<tr>
<td>Pet → pet</td>
<td>64.5 (63.8, 65.2)</td>
<td>59.5 (58.8, 60.3)</td>
</tr>
<tr>
<td>No pet → pet</td>
<td>61.6 (59.6, 63.6)</td>
<td>57.4 (55.3, 59.4)</td>
</tr>
<tr>
<td>Pet → no pet</td>
<td>62.0 (59.5, 64.5)</td>
<td>56.7 (56.2, 59.2)</td>
</tr>
</tbody>
</table>

*PF model: Other variables in model and significance levels: manage on income (p < .0001), level of physical activity (p < .0001), area of residence (p = .07), living arrangements (p = .04), moved house (p = .13) at Surveys 2 and 3.
^MHI model: Other variables in model and significance levels: manage on income (p < .0001), level of physical activity (p < .0001), housing (p = .009), area of residence (p = .08), living arrangements (p < .0001), moved house (p = .25) at Surveys 2 and 3.

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ties), and in country areas are much more likely to live with pets than other women. These demographic characteristics, as well as the women's ability to manage on their income, are strongly related to health outcomes.

**Demographic and Other Factors**

Pet ownership varies over the life course (Hart, 1993). Older women living with other people of different ages are more likely to have pets in their households. They may be living in these situations rather than independently (with or without spouse or partner) for a variety of reasons—for example, because their own health is failing or because they are assisting with childrearing. Therefore, they are likely to be a more heterogeneous group than women who live alone or only with their spouse.

Type of housing can affect opportunities for pet ownership (e.g., retirement village rules) as can living in rural areas compared to cities. However, these factors are also related to health. Health is generally poorer in rural areas. For example, a report by the Australian Institute of Health and Welfare (AIHW, 1998) showed the health of people living in rural and remote areas is poorer than that of people living in metropolitan areas. The health of women living in institutional settings is also lower than those living independently (American Geriatrics Society, 1993).

Other questions remain unanswered. For example, although healthier people are more likely to own an animal, the order of causation is uncertain (Siegel, 1990). Some researchers (e.g., Albert & Bulcroft, 1988) have suggested that pets may fulfill various roles and functions across the life span; such a developmental perspective could be important in interpreting human–pet interactions and possible benefits.

**Strengths of the Study**

The strengths inherent in the use of this longitudinal database include large sample size, heterogeneity of living conditions but not age, and the wide range of demographic and health variables included in the study. These features make it possible to see how strong the effects of demographics are on associations between living with companion animals and health outcomes. In addition, the nature of such a dataset facilitates the examination of data from both a cross-sectional as well as a longitudinal perspective.

**Limitations of the Study**

Limitations of this study include the fact that only one question on companion animals was asked, and no information on level of attachment to the animal(s) or responsibility for the care and welfare of the animal(s) was obtained (Garrity et al., 1989; Ory & Goldberg, 1983). The extent of attachment to pets has received much interest in the recent literature, and with more methodologically sound pet attachment scales this issue can perhaps be explored.

Another possible benefit of living with companion animals is that they require care, which in turn may have positive effects on one's sense of control and self-efficacy; this has been put forward as a mechanism through which social relations affect health and well-being (Antonucci & Jackson, 1987). Particularly for older or frail individuals who perceive themselves as primarily receiving care rather than being able to provide it, such an opportunity to provide meaningful care may help redress imbalances in support exchanges (reciprocity) in their relationships (see Antonucci, 1985; Uchara, 1995 for discussions of support reciprocity across the life span). Responsibility for caring for animals was not, however, explicitly asked in the ALSWH surveys.

In addition, reasons for change in pet ownership (e.g., a move to an institutional setting) were not known but could provide insight into issues such as grief on the loss of a pet. Another limitation of this study is the narrow age range and single gender (women), which means that the findings may not generalize to other life stages and across genders.

**Implications and Conclusions**

Inconsistencies in the literature on the relation between companion animals and health may be explainable by a variety of factors, including differing amounts of information on the nature of the human–pet relationship, different samples, and different methodologies. Living arrangements, ability to manage on income, and other basic demographic variables relate strongly both to health and to opportunities for pet ownership. Major effects of these factors mean that it is unlikely that the impact of the companion animals on health can be answered from observational studies, even when large epidemiological datasets are used. Well-designed and evaluated experimental studies, wherein the majority of such variables can be held constant or at least somewhat controlled and in which details of the human–animal bond and any attendant positive and negative sequelae are obtained, are required to answer questions regarding specific benefits of pet ownership.

The major implication of this study, however, should directly inform such future studies. The opportunity to interact with animals and to own and care for pets is, in some measure, reliant on demographic factors that also influence health outcomes. Our finding supports work by other researchers (e.g., Ory &
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Goldberg, 1983), who observed a complex interaction between sociodemographic factors, pet ownership, and happiness. To uncover specific and replicable health effects of the human–animal bond, it may be necessary to study more homogeneous samples to minimize the effects of other factors. Although this might limit the generalizability of findings, it would allow for more tailored and specific recommendations to maximize positive outcomes from human–pet relationships. This finding also points out the need for empirical studies that examine the effects of pet ownership as a central research question rather than as a peripheral finding. In this way, improved methodological rigor, such as random assignment to animal contact groups, would minimize the effects of demographic factors.

Positive psychology asks psychologists to focus on constructive human processes, emotions, and strengths (Sheldon & King, 2001). To be assured that we are indeed describing the mechanisms of such a potentially powerful positive relationship as the human–companion animal bond, we need to construct our study methods and analyses with care.

References