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# Health Care Decisions and Delay of Treatment in Companion Animal Owners

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**Abstract**
Previous research has indicated that companion animal ownership may confer health benefits; however, no studies have considered how companion animal ownership impacts key health decisions. The purpose of the current studies was to examine the extent to which animal-related factors influence health care decision making, specifically, owners' willingness to proceed with necessary medical treatments. In Study 1, a sample of 162 companion animal owners was recruited via Amazon Mechanical Turk to complete an online survey which included measures of social support, quality of relationship with the companion animal and two vignettes describing needed hospitalization. Results suggest that nearly half of companion animal owners would consider delaying a hospitalization due to reasons related to ownership. Similarly, in Study 2, dog owners were compared to a group of non-pet owners. Dog owners were more likely to report willingness to delay medical procedures due to their pets than non-pet owners were to consider delay due to friends or family members. Owners' health care decisions may be influenced by their relationship with their companion animal. Particularly at risk for delaying health procedures are those with lower levels of social support. While further study is needed, opportunities for intervention are considered.

**Keywords** Companion animals · Health care decision making · Social support

Research examining the impact of relationships with non-human animals on health has often indicated that interaction with companion animals has a positive impact on health outcomes. Companion animals, or pets, may serve several functions in managing health. In a review of the literature, the American Heart Association determined that companion animal ownership, especially dog ownership, is associated with decreased risk of cardiovascular disease and may have a causal role in protecting against cardiovascular disease via the protective benefits of social support, reduced reactivity to stress, increased exercise, reduced obesity rates, lower blood pressure, and lower lipid levels (Levine et al., 2013). So, potential benefits of companion animal ownership may include increased social support and better stress management, as well as more beneficial health behavior.

The importance of social support in health is well established for interpersonal relationships, and evidence does show that relationships with companion animals confer both similar and alternative benefits to human support (e.g., McConnell, Brown, Shoda, Stayton, & Martin, 2011; Polheber, 2014). Use of therapy animals has been shown to decrease pain, distress, and fatigue in specific populations (e.g., Marcus, 2012). Indeed, companion animals have been found to provide emotional and practical support to individuals living with chronic illness (Brooks et al., 2012) and to reduce loneliness, provide meaning, increase motivation, and promote feelings of safety to older adults (Johannson, Ahlstrom, & Jonnson, 2014; Stanley, Conwell, Bowen, & Van Orden, 2013).

One of the most studied aspects of companion animal ownership is increased physical activity, which itself is associated with a host of health benefits. This has held true for dog owners in particular, with increased rates of exercise and decreased rates of sedentary behavior (Enmarker, Hellzen, Ekker, & Berg, 2012; Garcia et al., 2015). Dog owners are particularly more likely to engage in mild-to-moderate exercise, and may experience additional benefits in other health behaviors, such as improved sleep (Mein & Grant, 2018).

Despite potential benefits of companion animal ownership described thus far, there may be risks as well.

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The most common risks identified are injury, exposure to zoonotic diseases, and financial and social pressures (Hodgson et al., 2015). While research on health risks related to ownership of a companion animal is quite limited in general, one area which has not yet been studied is the impact of companion animal ownership on health care decision making. Health care providers may be familiar with anecdotal reports of patients making health care decisions (e.g., having a medical procedure) based on whether care is available for their companion animal, but no studies to date could be located that have examined this phenomenon.

Previous research on healthcare decision making has indicated that postponing care increases one's chance for poorer health outcomes and longer hospital stays (Weissman, Stern, Fielding, & Epstein, 1991); thus, understanding factors leading to this decision is of utmost importance. To explore the process of delayed healthcare seeking, Safer, Tharps, Thomas, and Leventhal (1979) propose three stages. The first stage, appraisal delay, is the time the patient takes to perceive a symptom as a sign of illness. Illness delay, the second stage, occurs after an individual decides he/she is ill and decides to seek services. The last stage, utilization delay, includes the period after the patient decides to seek services until the patients goes to receive such services. Utilization delay is thought to be affected by numerous situational factors or barriers, like cost and other life obligations (Safer et al., 1979). Obligations related to parenting or pet-care, especially without social support to help with such obligations during a hospitalization, may affect one's duration of utilization delay.

Pet ownership has not been explored as a predictive variable for health care decision making; however, numerous patient demographics have been associated with prolonged delay. For those suffering from acute myocardial infarction, delay was more likely to occur among patients of advanced age (85 +), those of female gender, those without a living spouse and those living alone (Gurwitz et al., 1997). Individuals of such demographics may experience lack of social support and/or care-taking obligations which affect the duration of utilization delay. In addition, caretaking alone may affect one's health. Previous research on those acting as caretakers for their spouse found that caretaker strain and degree of their spouse's impairment are related to poorer perceived caretaker health and increased health-risk behaviors among caretakers (Beach, Schulz, Yee, & Jackson, 2000).

Despite the lack of research on pet-ownership and health care decision making, previous research has found that overall concern for pets affects other decisions made by pet-owners. For example, in a sample of intimate partner violence victims, one-fourth reported experiencing concern for their pets which affected their decision to leave or stay in the abusive situation (Faver & Strand, 2003).

The purpose of the present study is to examine whether companion animal owners report that having a companion animal would influence an important health decision, and whether existing social support and quality of the relationship with the companion animal might impact the likelihood of this occurring.

## Study 1

### Method

#### Participants

Participants were a community sample recruited via Amazon Mechanical Turk. Of the 162 individuals that initiated the study, three did not own companion animals; nine had excessive missing data, and two lacked any variability in response, suggesting that they did not put forth good effort. The final sample included 148 participants. Females comprised 60.8% of the sample, and most had completed at least some college (89.1%), with 39.9 and 20.3% holding bachelor's and graduate degrees, respectively. The mean age was 35.2 years (SD = 11.2), with a range of 18–66. 60.1% of the sample identified as white, 29.1% as Asian, 3.4% as American Indian/Alaskan Native, 2.7% as African American, 0.7% as Pacific Islander, and 3.4% as Other/unspecified. Half of participants (50%) were married, 32.4% were single/never married, 12.2% were cohabiting, 4.7% were divorced, and 0.7% were widowed. All participants included in the final sample owned at least one companion animal. Of these, 43.9% had one companion animal, 31.1% had two companion animals, and 25% had three or more companion animals. The most common companion animals identified were dogs (66.9%) and cats (50.7%), though others included fish (8.1%), birds (5.4%), reptiles/amphibians (4.7%), rabbits (1.4%), and horses (0.7%), with 6.1% having an additional unspecified type of companion animal.

#### Measures

**Interpersonal Support Evaluation List-12 item (ISEL-12)** The ISEL-12 (Cohen, Mermelstein, Kamarck, & Hoberman, 1985) is a brief measure of perceived social support. It has three subscales (appraisal, belonging, and tangible support), which can also be summed for a total score. Higher scores are associated with higher levels of social support. It has demonstrated good reliability and validity (Merz et al., 2014). The reliability estimate in the current sample was $\alpha = .87$, with tangible being the lowest subscale at $\alpha = .61$.

**Monash Dog Owner Relationship Scale (MDORS)** The MDORS (Dwyer, Bennett, & Coleman, 2006) is a 28-item

measure that examines three aspects of dog ownership: dog–owner interaction, emotional closeness, and perceived costs. It was developed to measure the quality of the relationship between dog and owner, and has shown good reliability and validity (Dwyer et al., 2006). Higher scores on each subscale are associated with a more positive relationship between owner and companion animal. The scale was modified for use in this study; the word "dog" was replaced throughout the measure with "pet" to broaden its applicability. This change was made to attempt to capture a wider range of pet owners, though it should be noted that this change may not fit well for all items. In particular, items in the "dog–owner" interaction subscale may not translate well, as some behaviors listed (e.g., taking the dog in the car) may not be possible or appropriate for other types of pets. This appears to be partially reflected in psychometric properties of the scale; as in the current sample, reliability was lower for dog–owner interaction ($\alpha = 0.75$) as compared to $\alpha = .86$ for emotional closeness ($\alpha = 0.86$) and perceived costs ($\alpha = 0.86$).

**Vignettes** Participants were presented with vignettes designed for this study in which a hospitalization was required. Vignettes were developed to simulate an emergency situation ("You suddenly begin having a severe pain in the right side of your stomach. You go to the emergency room, and are told by the doctor that you have appendicitis and need immediate surgery. After surgery, you will stay in the hospital overnight and go home tomorrow if you are doing well.") and a planned hospitalization ("You have been having knee problems for several months. Your doctor has recommended that you have surgery on your knee, which will require staying in the hospital about 3 nights."). Each vignette underwent pilot testing to establish internal validity (e.g., Hughes & Huby, 2004) with a small group ($n = 8$) to ensure that it was (1) a reasonable representation of the condition described, (2) to evaluate perceived severity of the condition, and (3) to determine how participants might view the importance of a delay in care. Overall, pilot testing suggested that participants viewed the vignettes as reasonable representations of conditions described (appendicitis and knee pain), viewed both situations as warranting care, with the emergency situation seen as more urgent and severe, and were more likely to consider the knee surgery to be more flexible in scheduling than the appendicitis care. When administered in the context of the study, vignettes were followed by a series of questions regarding their companion animals and related social support for caring for the companion animal. Participants were asked the likelihood of missing their companion animal, worrying about their companion animal, and delaying treatment to be sure their companion animal was cared for, which they rated on a 5-point Likert scale of "Very likely" to "Very unlikely." They also were asked if they had someone who could care for their companion animal under these circumstances.

### Procedure

This study was approved by the Marshall University Institutional Review Board. Potential participants were identified via the Amazon Mechanical Turk website, and interested individuals were redirected to a survey administered via Qualtrics. After reading an informed consent document, participants completed study measures. At the completion of the study, participants were provided an individualized code to submit to Amazon Mechanical Turk to receive a nominal payment ($0.02).

## Results

### Social Support and Relationships with Companion Animals

Overall, the current sample reported fairly high levels of social support, as well as positive relationships with companion animals (Table 1). Higher scores on the "pet–owner interaction" subscale were associated with increased emotional closeness ($r = 0.659$, $p < 0.0001$), but not with perceived costs ($r = -0.069$, $p =$ ns). "Emotional closeness" was negatively correlated with perceived costs ($r = -0.330$, $p < 0.0001$), suggesting that those who feel close to their companion animals perceive that there are more costs associated with companion animal ownership. Of the animal ownership variables, social support was correlated only with perceived costs ($r = 0.416$, $p < 0.0001$), indicating that higher levels of social support are associated with fewer perceived costs of animal ownership to the individual.

Of note, differences were observed between male and female participants (Table 2). Female participants had more companion animals than male participants. They reported

**Table 1** Mean scores for social support and animal relationships

| Variable | *M* | SD | Possible range |
|---|---|---|---|
| Social support | | | |
| Appraisal | 8.1 | 2.9 | 0–16 |
| Belonging | 7.6 | 2.6 | 0–16 |
| Tangible | 7.4 | 2.4 | 0–16 |
| Total | 23.1 | 7.0 | 0–48 |
| Animal ownership | | | |
| Interaction | 18.4 | 5.4 | 9–45 |
| Emotional closeness | 20.7 | 7.2 | 10–50 |
| Perceived costs | 32.8 | 7.3 | 9–45[a] |

[a]Higher scores indicated lower perceived costs

**Table 2** Gender differences in key variables

| | Male | | | Female | | | 95% CI | *t* | *p* | df |
|---|---|---|---|---|---|---|---|---|---|---|
| | *M* | SD | *n* | *M* | SD | *n* | | | | |
| Number of animals | 1.7 | 1.0 | 58 | 2.2 | 1.2 | 89 | −0.92, −0.14 | −2.70 | 0.008 | 146 |
| Emotional closeness | 22.2 | 7.2 | 58 | 19.8 | 5.9 | 90 | 0.12, 4.83 | 2.08 | 0.040 | 146 |
| Perceived costs | 30.0 | 6.8 | 58 | 34.7 | 7.0 | 88 | −0.70, −2.33 | −3.96 | 0.000 | 144 |
| Social support | | | | | | | | | | |
| Tangible | 6.7 | 2.5 | 58 | 7.8 | 2.3 | 90 | −1.83, −0.24 | −2.57 | 0.011 | 146 |
| Total | 21.7 | 6.9 | 58 | 24.0 | 6.9 | 90 | −4.62, −0.02 | −2.00 | 0.048 | 146 |
| Miss animal—routine | 3.9 | 1.2 | 58 | 4.4 | 1.1 | 90 | −0.79, −0.07 | −2.37 | 0.019 | 146 |

slightly less emotional closeness with their companion animals than male participants, but also perceived fewer costs associated with ownership. Additionally, males reported lower levels of social support than females, both overall, and regarding tangible support specifically.

## Response to Hypothetical Hospitalization

Most participants indicated concerns about being separated from their companion animals during a hospitalization (Table 3). Over 75% indicated that they would miss their companion animals during either a routine or emergent hospitalization, and over two-thirds would worry about their companion animals. Of note, nearly half of all participants indicated that they would delay seeking recommended treatments due to concerns about their companion animals. Males were less likely to report that they would miss their companion animal during a routine hospitalization (see Table 2), but no other gender differences emerged regarding outcome variables. For both routine and emergent hospitalizations, the vast majority of participants indicated that they would have someone who could take care of their companion animal (89.9% and 90.5%, respectively).

## Influence of Support and Companion Animal Relationships on Delay of Treatment

Social support was significantly negatively correlated with both delay of routine ($r = -0.203$, $p < 0.014$) and emergency ($r = -0.280$, $p < 0.001$) care, such that individuals with higher levels of social support were less likely to report that they would delay seeking recommended treatment. Similarly, "pet–owner interaction" negatively correlated with delay of routine ($r = -0.273$, $p < 0.001$) and emergent ($r = -0.175$, $p < 0.033$) care. Emotional closeness with companion animal was negatively correlated with delaying routine care only ($r = -0.227$, $p < 0.006$), and perceived costs were negatively correlated with delay of emergency care only ($r = -0.280$, $p < 0.001$).

Linear regression was used to examine two models in which social support and pet ownership variables predicted delay of treatment for either emergent or routine care (Table 4). In both cases, results support the model, suggesting that quality of the relationship with companion animals as well as availability of social support impacts the likelihood of a decision to delay medical treatment. When considering whether to delay a routine hospitalization, it appears that lower perceived social support is most important in predicting the decision to delay, with interactions with the companion animal also marginally significant. However, for emergent hospitalizations, both social support and the perceived cost of pet ownership contribute significantly

**Table 3** Companion animal owner concerns about hospitalization

| | Percent ($n = 148$) | | | | |
|---|---|---|---|---|---|
| | Very unlikely | Unlikely | Neutral | Likely | Very likely |
| Routine | | | | | |
| Miss animal | 4.7 | 6.1 | 6.8 | 29.7 | 52.7 |
| Worry about animal | 7.4 | 8.1 | 8.1 | 31.8 | 44.6 |
| Delay treatment | 18.2 | 18.2 | 13.5 | 25.7 | 23.0 |
| Emergency | | | | | |
| Miss animal | 3.4 | 8.1 | 12.2 | 28.4 | 47.3 |
| Worry about animal | 4.7 | 11.5 | 10.1 | 32.4 | 40.5 |
| Delay treatment | 14.9 | 24.3 | 15.5 | 27.7 | 17.6 |

**Table 4** Regression analyses for the impact of social support and companion animal relationship variables on the decision to delay hospitalization

| | *t* | *p* | *B* | SE(B) | *F* | df | *p* | Adj $R^2$ |
|---|---|---|---|---|---|---|---|---|
| Routine | | | | | 5.49 | 4, 139 | < 0.001 | 0.112 |
| Constant | 7.91 | 0.000 | 6.73 | 0.85 | | | | |
| Social support | − 2.17 | 0.032 | − 0.04 | 0.02 | | | | |
| Interactions | − 1.85 | 0.067 | − .0.05 | 0.03 | | | | |
| Emotional closeness | − 1.30 | 0.195 | − 0.03 | 0.02 | | | | |
| Perceived cost | − 0.94 | 0.349 | − 0.02 | 0.02 | | | | |
| Emergent | | | | | 7.24 | 4, 141 | < 0.001 | 0.147 |
| Constant | 9.31 | 0.000 | 7.18 | 0.77 | | | | |
| Social support | − 2.26 | 0.025 | − 0.04 | 0.02 | | | | |
| Interactions | − 0.69 | 0.489 | − 0.02 | 0.03 | | | | |
| Emotional closeness | − 1.82 | 0.070 | − 0.04 | 0.02 | | | | |
| Perceived Cost | − 2.98 | 0.003 | − 0.05 | 0.02 | | | | |

$n = 145$. Effects are reported as unstandardized regression coefficients

to predicting the likelihood of delay. These results suggest that owners of companion animals with lower levels of social support may be consistently more likely to delay hospitalization.

## Study 2

### Method

#### Participants

Participants were a community sample recruited via Amazon Mechanical Turk including both dog owners and individuals who did not own any kind of companion animal to provide a comparison group. Of the 263 potential participations recruited, 49 owned a companion animal other than a dog and were excluded from the study. An additional 10 participants had excessive missing data and were excluded from analyses, producing a final sample of 204. Of these, 153 were dog owners and 51 did not have a companion animal of any kind. A majority of participants (59.8%) were female. All participants had completed at least a high school education, with most having obtained a bachelor's degree (42.2%) or higher (14.7%). Mean age was 36.5 years (SD = 11.9). Nearly two-thirds of the sample (63.7%) identified as white, 18.1% as Asian, 10.8% as black or African American, 2.5% as Native American or Alaskan Native, and 4.9% as other. Similarly, most participants were in long-term romantic relationships, with 47.1% married and 15.7% cohabiting, though a substantial minority identified as single (28.4%), divorced (5.9%), or widowed (2.9%). The median number of people in participants' homes was three ($M = 3.1$, SD = 11.9). While the comparison group members did not own any animals, the median number of pets per household among dog owners was two, and dog owners did also have a range of animals, including cats ($n = 66$), horses ($n = 5$), birds ($n = 9$), reptiles ($n = 9$), fish ($n = 21$), rabbits ($n = 6$), and others ($n = 16$).

#### Measures

**Interpersonal Support Evaluation List-12 item (ISEL-12)** The ISEL-12 (Cohen et al., 1985) is a brief measure of perceived social support. It has three subscales (appraisal, belonging, and tangible support), which can also be summed for a total score. Higher scores are associated with higher levels of social support. It has demonstrated good reliability and validity (Merz et al., 2014). The reliability estimate in the current sample was $\alpha = .87$.

**Monash Dog Owner Relationship Scale (MDORS)** The MDORS (Dwyer et al., 2006) is a 28-item measure that examines three aspects of dog ownership: dog–owner interaction, emotional closeness, and perceived costs. It was developed to measure the quality of the relationship between dog and owner, and has shown good reliability and validity (Dwyer et al., 2006). Higher scores on each subscale are associated with a more positive relationship between owner and companion animal. Unlike in Study 1, no modifications to the original scale were made for the current study. Reliability ranged from $\alpha = 0.77$ for dog–owner interaction to $\alpha = .86$ for emotional closeness ($\alpha = 0.85$) and perceived costs ($\alpha = 0.88$).

**Vignettes** Participants in the dog owner group were presented with the same vignettes and questions designed for Study 1. Participations in the comparison group received the same vignettes, followed by modified questions asking about friends and family. Participants were asked the likelihood of missing their companion animal or family/friends, worrying about their companion animal or family/friends, and delaying treatment to be sure their companion animal was cared

for or because of a need of a friend/family member, which they rated on a 5-point Likert scale of "Very likely" to "Very unlikely." They also were asked to identify the number of people who could assist them under these circumstances.

## Procedure

This study was approved by the Marshall University Institutional Review Board. Potential participants were identified via the Amazon Mechanical Turk website, and interested individuals were redirected to a survey administered via Qualtrics. After reading an informed consent document, participants were asked a question about pet ownership status (dog owner, no pets, or only non-dog animals). Participants only owned non-dog animals were not administered further measures, whereas dog owners and non-pet owners were directed to complete the questionnaires and appropriate vignettes. At the completion of the study, participants were provided an individualized code to submit to Amazon Mechanical Turk to receive a nominal payment ($0.02).

# Results

## Social Support Among Dog Owners and Non-owners

Perceived social support between the dog owner group ($M = 35.4$, SD = 7.1) and comparison group ($M = 34.5$, SD = 8.3) was similar, with no significant differences in overall level of support ($t = -0.80$, $p < 0.428$). Additionally, in responding to the vignettes, no differences emerged in the number of potential helpers available to participants in either emergency (pet owners $M = 3.02$, SD = 1.58; comparison $M = 2.77$, SD = 2.14; $t = -0.71$, $p < 0.480$) or routine (pet owners $M = 3.13$, SD = 1.86; comparison $M = 3.14$, SD = 2.60; $t = .020$, $p < 0.984$) hospitalizations, although dog owners ($M = 3.19$, SD = 1.28) reported having slightly more people living in the home than did the comparison group ($M = 2.74$; SD = 1.29; $t = -2.118$, $p = 0.037$).

## Response to Hypothetical Hospitalization

As in Study 1, many dog owners expressed concern about separation from their pets (Table 5). In contrast, non-pet owners expressed relatively little anticipated distress about separation from family/friends (Table 6). This translated to different responses regarding likelihood of delay in treatment. Dog owners were more likely to consider delaying

**Table 5** Study 2 companion animal owner concerns about hospitalization

| | Percent ($n = 152$) | | | | |
|---|---|---|---|---|---|
| | Very unlikely | Unlikely | Neutral | Likely | Very likely |
| Routine | | | | | |
| Miss animal | 3.3 | 9.2 | 8.6 | 30.3 | 48.7 |
| Worry about animal | 0.7 | 11.2 | 10.5 | 30.9 | 46.7 |
| Delay treatment | 12.5 | 12.5 | 19.7 | 31.6 | 55.3 |
| Emergency | | | | | |
| Miss animal | 2.0 | 10.0 | 8.7 | 28.0 | 51.3 |
| Worry about animal | 2.0 | 9.3 | 14.0 | 25.3 | 49.3 |
| Delay treatment | 9.3 | 12.0 | 14.7 | 31.3 | 32.7 |

**Table 6** Study 2 comparison group concerns about hospitalization

| | Percent ($n = 52$) | | | | |
|---|---|---|---|---|---|
| | Very unlikely | Unlikely | Neutral | Likely | Very likely |
| Routine | | | | | |
| Miss family/friends | 9.6 | 19.2 | 9.6 | 34.6 | 26.9 |
| Worry about family/friends | 11.5 | 23.1 | 13.5 | 28.8 | 23.1 |
| Delay treatment | 30.8 | 28.8 | 13.5 | 19.2 | 7.7 |
| Emergency | | | | | |
| Miss family/friends | 17.3 | 28.8 | 5.8 | 32.7 | 15.4 |
| Worry about family/friends | 25.0 | 19.2 | 9.6 | 30.8 | 15.4 |
| Delay treatment | 27.5 | 23.5 | 21.6 | 15.7 | 11.8 |

treatment in both emergency ($t = -4.515$, $p < 0.001$) and routine ($t = -4.836$, $p < 0.001$) situations than were non-pet owners.

## Conclusions

Overall, these results suggest that companion animal ownership may influence health care decision making, with the majority of companion animal owners reporting that they would consider delaying recommended hospitalizations because of their companion animals in hypothetical scenarios. In contrast with non-animal owners, pet owners may be more likely to delay care. It appears likely that social support functions as a buffer, such that individuals with good social support may be able to find care for their companion animals more easily and receive the medical care they need. This is consistent with a prior study by Garrity, Stallones, Marx, and Johnson (1989), which found that among recently bereaved adults, pet ownership predicted lower levels of depression only for those with lower levels of social support.

These studies are preliminary in nature. A primary limitation is the use of hypothetical situations rather than participants who are actively in need of medical care. Similarly, both vignettes were presented to all participants in the same order, so it is possible that priming could impact results. Also, these samples may not be representative of the general population, as the sample is predominately female and well educated. As such, these findings may not generalize to other samples. Another limitation is the use of a single question as the primary outcome variable. No scales are currently available to measure the impact of companion animal ownership on health care decisions, but development of such as scale would assist studies on this topic in the future. Additionally, as noted previously, the modification of the MDORS in Study 1 to include all pets rather than dogs only marks a departure from the original construction of the scale, and not all items may be appropriate for this change, which could impact results. Also, while linear regression was used to quantify the relationships between variables, the cross-sectional design limited the ability to test for predictive relationships among variables.

However, these studies do support the possibility that some individuals may choose to delay needed medical treatment due to their concerns about their companion animals. Further study is warranted to determine the frequency of this occurrence in real-world situations, as well as factors such as lack of social support which may place individuals at risk of delaying necessary medical care. Additionally, it is quite possible that delays could also occur in receiving appropriate mental health care, such as inpatient psychiatric hospitalization or substance use treatment, which should also be explored in future studies. Should future studies find additional support for this phenomenon, psychologists and other health providers may want to consider ways in which they can facilitate care by helping individuals problem-solve animal-care needs or working with community organizations to provide care for companion animals of individuals in need.

### Compliance with Ethical Standards

**Conflict of interest** Brittany Canady and Ashley Sansone declare that they have no conflict of interest.

**Ethical Approval** All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards.

**Informed Consent** Informed consent was obtained from all individual participants included in the study.

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