

Factors Associated with Responsible Companion Animal Care: A Cross-Sectional Study of U.S. Pet Owners

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Received: 10-May-2026

Accepted: 21-June-2026

Published: 27-June-2026

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This article is published in the **MSI Journal of Sustainable Agriculture and Food Systems**

ISSN 3139-2458 (Online)

Volume: 2, Issue: 1 (Jan-Jun) 2026

ABSTRACT: Background: Pet ownership in the U.S. is increasing, but owners vary in their understanding and practices of responsible care. Few studies have explored how demographics affect pet care knowledge, feeding practices, and animal welfare behaviors.

Objective: This study aimed to assess pet owners' knowledge, attitudes, and behaviors regarding basic pet care, feeding practices, and animal welfare, and to examine demographic factors associated with responsible care practices.

Methods: A web-based survey among U.S. adults aged 18+ who owned or previously owned a dog or cat was conducted, recruiting via social media, email, and flyers. It included scales on pet care knowledge, animal welfare attitudes, and pet care behaviors. Data analysis involved descriptive statistics, t-tests, ANOVA, correlations, and chi-square tests to explore demographic links to pet care outcomes.

Results: A total of 294 participants completed the survey (mean age = 41.15 years; 87.7% female). Participants demonstrated generally positive attitudes toward preventive veterinary care and animal welfare. Female participants scored significantly higher on all three scales compared to males ($p < .05$). Participants with

higher educational attainment also reported significantly greater basic pet care knowledge and personal pet care behaviors ($p < .05$). Positive associations were observed between support for spaying/neutering and support for microchipping ($p < .001$).

Conclusions: Pet owners generally reported strong awareness of responsible animal care practices; however, knowledge and implementation varied by gender and education. Increased public education, veterinary outreach, and preventive care resources may help strengthen responsible pet ownership practices and improve companion animal welfare outcomes.

Keywords: *animal welfare; pet care; pet owners; veterinary practices;*

Introduction

Pet ownership in the United States continues to rise, with dogs and cats the most commonly kept companion animals (American Pet Products Association [APPA], 2023). As these animals increasingly take on roles as family members rather than just pets, public interest in the proper care and welfare of companion animals has also grown (Risley-Curtiss, 2010). However, the extent to which everyday pet owners understand and meet the basic needs of dogs and cats, including nutrition, healthcare, exercise, and emotional enrichment, remains an important area of inquiry.

Basic pet care encompasses more than just providing food and shelter; it also includes access to veterinary care, social interaction, regular exercise, and behavioral stimulation (American Veterinary Medical Association [AVMA], 2021). However, the knowledge of and ability to implement these care practices can vary significantly among pet owners, influenced by factors such as income, education, cultural background, and access to reliable information.

Feeding practices show significant diversity. While some pet owners follow veterinarians' recommendations or choose commercial pet foods based on nutritional value, others rely on advice from informal sources, such as online communities or personal beliefs (Dodd et al., 2019). Homemade diets, raw feeding, and specialized food choices are increasingly common but may not always align with best practices for pet health. Understanding what drives these decisions and how owners perceive "healthy" feeding can inform targeted education and outreach efforts.

Additionally, interactions with stray animals represent another critical dimension of pet care behavior. Many communities face challenges related to stray dogs and cats, and individual responses to encountering strays, such as feeding, adopting, ignoring, or reporting them, vary significantly. Personal values, perceptions of animal welfare, and access to local resources, such as shelters or animal control services, often shape these actions.

Despite the relevance of these issues, literature is limited in its examination of how pet owners conceptualize and manage the basic responsibilities of caring for dogs and cats, particularly in everyday contexts. This study aims to examine how adult pet owners understand and implement core aspects of animal care, including feeding practices and responses to stray animals. By gaining insight into owner perspectives, this research can inform veterinary professionals, animal welfare advocates, and policymakers working to promote responsible and compassionate pet care across diverse communities.

Methods

Study Design and Subject Recruitment

The following study was conducted using a cross-sectional, web-based survey of a convenience sample of adults aged 18 and older in the United States. Data were collected through a Qualtrics survey accessed via a link provided by the PI institution. Recruitment methods included posting flyers on social media (Facebook and Instagram), emailing PI contacts, and placing flyers around campus buildings. Voluntary response sampling was used, with anyone who encountered the link and was eligible able to participate. The LSU AgCenter Institutional Research Board (IRB) approved the study under number IRBAG-25-0070.

Survey Development

A thorough literature search identified several validated scales measuring various aspects of pet care (Templer, Arikawa, Canfield, Munsell, & Tangan, 2004; Herzog, Grayson, & McCord, 2015; Forrest, Pearson, & Awawdeh, 2023). However, no single scale captured what the researchers sought to measure in this sample. The items for each of the three scales were grounded in the literature but were not copied from currently available scales.

Basic Pet Care Scale

This is a 13-item scale focusing on concepts such as pet insurance knowledge, microchipping, and the importance of regular veterinary checkups. Items with negative connotations were

reverse-coded, including statements that declawing and neutering are “cruel” and that it is okay for dogs to live outside like other animals. Participants indicate their agreement with each statement on a 5-point Likert scale, where 1 indicates "strongly disagree," and 5 indicates "strongly agree". The scale has a possible total score range of 13 to 65, with higher scores indicating greater understanding of the importance of the basic needs of cats and dogs in the household.

Animal Welfare Scale

The Animal Welfare Scale comprises 12 items that measure participants' level of agreement with statements such as "pets have emotions" and "intervene when witnessing animal abuse." Items related to putting down hunting dogs that did not perform, the belief that raw diets are healthier than kibble, and the idea that dogs should live outside were reverse-coded to ensure that the factor score accurately reflects participants' attitudes toward animal welfare. It uses the same 1-to-5 agreement scale as the basic pet care scale. The scale has a possible total score range of 12 to 60, with higher scores indicating greater awareness of how animals and pets should be treated.

Personal Pet Care Scale

This is an 11-item yes/no scale that assesses elements of how the participant may be caring for their own pet, including microchipping, flea/tick prevention, regular veterinary care, regular dental cleanings, the type of food used, and additional questions about any activity related to fostering or rehoming an animal. Items related to feeding raw diets and surrendering pets to a shelter were reverse-coded. It yields a possible score from 0 to 11, with higher scores indicating a greater frequency of positive personal pet care activities for that participant.

Demographics

Additional questions on demographics and other variables of interest covered owning hunting dogs, purchasing pet insurance, state of residence, age, gender, race and ethnicity, education level, income range, work status, household size, and the number of cats and dogs in the household. The final section of the survey allowed participants to list their most recently acquired dogs or cats and provide additional information on breed, age, gender, location (inside vs. outside), source, and the number of veterinarian visits in the past year.

Statistical Analyses

A-priori Power Analysis was conducted to determine a minimum of 212 participants to detect an effect with a desired statistical power level of .95 (Free Statistics Calculators, 2025).

For categorical demographics with three or more categories, Analysis of Variance (ANOVA) was used to compare mean scores on the basic pet care, animal welfare, and personal pet care scales, followed by Tukey post hoc tests. T-tests were used to assess the statistical significance of gender, ethnicity, ownership of hunting dogs, and purchase of pet insurance in relation to the three scales. Chi-square tests were used to compare categorical variables, such as microchipping personal pets versus attitudes toward spaying/neutering. All analyses were conducted with an alpha level of $p \leq .05$.

Results

Sample Description

A total of 294 participants completed the survey, with analytic sample sizes varying slightly across analyses due to listwise deletion. For the primary composite scale, 275 participants were included. Participants ranged in age from 18 to 65 years ($M = 41.15$, $SD = 12.82$). Most respondents identified as female (87.7%). Education levels ranged from high school to doctoral degrees, with 58.2% holding a bachelor's degree or higher—the majority of participants identified as white (95%) and non-Hispanic (94.6%). The majority indicated they worked for pay (full-time or part-time) (76.2%), with only 7.8% identifying as full-time college students. The largest income category was over \$95,000 per year (39.8%). The average household size was 2.75 people, and the average number of pets in the household was 3.00. The majority did not have pet insurance at the time of the survey (84.0%).

Research Aim 1: Assess dog and cat owners' knowledge, attitudes, and behaviors related to basic pet care, feeding practices, and animal welfare awareness

The overall composite score of the basic pet care scale had a mean of 45.94 ($SD = 6.20$; range = 19-61), indicating generally positive knowledge and attitudes toward responsible pet care among respondents. Individual items related to core pet care practices also showed high agreement. For example, participants strongly endorsed routine veterinary care and general pet health practices, with mean scores above 4.3 on a 5-point scale. These findings indicate a high level of awareness and favorable attitudes toward basic pet care responsibilities.

Independent-samples t-tests and one-way ANOVA were conducted to examine differences in basic pet care knowledge and attitudes by selected participant demographics. Female participants had significantly higher composite scores ($M = 46.30$, $SD = 5.84$) than males ($M = 44.14$, $SD = 8.02$), $F(1, 272) = 5.98$, $p = .031$. A one-way ANOVA examining differences in composite scores across the number of pets in the household (ranging from 1 to 10) was not statistically significant, $F(9, 263) = 1.17$, $p = .313$. Post hoc analyses (Tukey HSD) revealed no significant pairwise differences between groups. Additionally, correlation analysis indicated no significant relationship between the number of pets and composite scores ($r = .042$, $p = .490$). Basic pet care scores differed significantly by education level, $F(2, 281) = 3.95$, $p = .020$. Post hoc comparisons indicated that individuals with a high school education or less scored significantly lower than both those with some college and those with a bachelor's degree or higher. There were no other significant differences in basic pet care scores among the other demographics in the study.

The overall composite score of the animal welfare scale had a mean of 48.87 ($SD = 5.38$; range = 18-59), suggesting a relatively high level of awareness of animal safety and well-being. Independent-samples t-tests and one-way ANOVA were conducted to examine differences in animal welfare awareness by selected participant demographics. The only significant difference in score was seen between males and females, with females having higher scores ($p = .015$, $F(1,272) = 4.67$). A one-way ANOVA examining differences in composite scores across the number of pets in the household (ranging from 1 to 10) was statistically significant, $F(9, 262) = 2.12$, $p = .028$. Post hoc analyses (Tukey HSD) revealed significant pairwise differences between those owning three pets and those owning 5 pets. Additionally, correlation analysis indicated no significant relationship between the number of pets and composite animal welfare scores ($r = .081$, $p = .182$).

Research Aim 2: Examine demographic factors associated with responsible care practices

To examine factors associated with responsible pet care practices, bivariate analyses were conducted using chi-square tests to assess relationships between key attitudes and reported care behaviors. A chi-square test of independence was conducted to examine the relationship between attitudes toward spaying/neutering and attitudes toward microchipping. Results indicated a statistically significant association between these variables, $\chi^2(16, N = 294) = 78.58$, $p < .001$.

Inspection of the cross-tabulation reveals a clear pattern: individuals who expressed stronger agreement with spaying/neutering (higher Likert values) were also more likely to express strong agreement with microchipping. For example, among respondents who strongly agreed with spaying/neutering, the majority also selected higher-agreement categories for microchipping attitudes. Additional measures of association indicated a moderate positive relationship between the variables, with Pearson $r = .366$ and Spearman's $\rho = .358$ (both $p < .001$).

The overall composite score of the personal pet care scale had a mean of 6.34 (SD = 1.86; range = 0-10), suggesting a slightly higher-than-50% frequency of positive personal pet care activities among participants. Female participants had significantly higher composite scores ($M = 6.50$, $SD = 1.75$) than males ($M = 5.51$, $SD = 2.37$), $F(1, 270) = 5.95$, $p = .015$. These scores also differed significantly by education level, with those with a bachelor's degree or higher scoring higher ($M = 6.56$, $SD = 1.77$) than those with a high school education or less ($M = 5.75$, $SD = 1.97$), $F(2, 280) = 3.44$, $p = .033$. Although not significant, those who purchased pet insurance had the highest mean personal pet care scores ($M = 7.20$, $SD = 1.73$). A correlation analysis indicated no significant relationship between the number of pets and basic pet care scores ($r = .102$, $p = .092$). Additional results for the three scales and the demographic variables are presented in Table 1.

Table 1. Comparison of Participant Demographics and Mean Scale Scores

Demographic	N (%)	Mean Basic Pet Care (SD)	p-value	Mean Animal Welfare (SD)	p-value	Mean Personal Pet care (SD)	p-value
Ethnicity			.737		.601		.490
Hispanic	13 (4.5)	46.07 (6.56)		48.46 (3.92)		6.84 (2.11)	
Non-Hispanic	278 (94.6)	46.00 (6.17)		48.92 (5.44)		6.34 (1.84)	
Gender			.031*		.015*		.015*
Male	35 (12.3)	44.14 (8.02)		46.02 (8.07)		5.51 (2.37)	
Female	249 (87.7)	46.30 (5.84)		49.36 (4.81)		6.50 (1.75)	
Race			.722		.533		.874
White	266 (95)	46.08 (6.24)		48.95 (5.74)		6.39 (1.83)	
B/AA	8 (2.9)	48.14 (3.53)		47.25 (5.11)		6.00 (2.00)	
Asian	3 (1.1)	43.66 (10.01)		45.33 (5.68)		6.50 (2.12)	

AI/AN	3 (1.1)	47.33 (3.78)		50.50 (5.45)		7.00 (1.73)	
Education			.020*		.213		.033*
High School or Less	41 (14)	43.41 (8.39)		47.94 (6.19)		5.75 (1.97)	
	81 (27.7)	46.56 (5.45)		49.70 (4.93)		6.22 (1.93)	
Some College	170 (58.2)	46.27 (6.21)		48.69 (5.40)		6.56 (1.77)	
Bachelor's degree or Higher							
Work for Pay			.760		.910		.433
Yes	218 (76.2)	45.90 (6.09)		48.73 (5.40)		6.34 (1.88)	
No	68 (23.8)	46.18 (6.72)		49.37 (5.55)		6.47 (1.72)	
Yearly Income Level			.652		.211		.555
≤ \$34,999	41 (16.5)	45.29 (6.40)		48.43 (6.23)		6.07 (1.99)	
	47 (18.9)	46.95 (5.68)		50.47 (4.56)		6.48 (1.77)	
\$35,000 – \$64,999	62 (24.9)	45.83 (7.33)		48.24 (4.57)		6.51 (1.93)	
	99 (39.8)	45.96 (5.43)		48.88 (5.69)		6.57 (1.83)	
\$65,000 - \$94,999							
≥\$95,000							
Own Hunting Dogs			.387		.486		.486
Yes	11 (3.7)	46.00 (5.34)		47.27 (4.02)		6.70 (2.05)	
No	283 (96.3)	45.94 (6.24)		48.93 (5.43)		6.33 (1.85)	
Purchase Pet Insurance			.150		.262		.981
Yes	47 (16)	48.32 (5.56)		49.84 (7.29)		7.20 (1.73)	
No	247 (84)	45.48 (6.22)		48.69 (4.95)		6.19 (1.84)	

Discussion

This study examined U.S. pet owners' knowledge, attitudes, and self-reported behaviors regarding companion animal care, including veterinary practices, feeding decisions, and responses to animal welfare concerns. Overall, participants showed strong awareness of

responsible pet ownership practices, particularly routine veterinary care, microchipping, and intervention when suspected abuse is reported. These findings align with broader societal trends that increasingly position pets as family members rather than solely companion animals, reinforcing the growing emphasis on preventive care and welfare-centered ownership practices (Risley-Curtiss, 2010; APPA, 2023).

Participants generally endorsed preventive veterinary care and animal welfare principles, yet meaningful differences emerged across demographic groups. Female participants consistently scored higher on the basic pet care, animal welfare, and personal pet care scales than male participants. These findings align with prior research indicating that women often report stronger emotional attachment to pets and greater engagement in preventive healthcare practices for companion animals (Herzog, 2007; Risley-Curtiss, 2010). The current results may reflect broader gender differences in caregiving behaviors, empathy toward animals, and health-related decision-making.

Education level also emerged as an important predictor of knowledge and behaviors related to responsible pet care. Participants with at least some college education or a bachelor's degree scored significantly higher on both the basic and personal pet care scales than those with a high school education or less. These findings suggest that access to education may improve understanding of evidence-based pet care recommendations and increase exposure to veterinary and animal welfare information. Educational attainment may also influence financial stability and access to resources necessary for preventive veterinary care, microchipping, and parasite prevention. These findings support the need for accessible public education campaigns that present pet care recommendations in clear, practical, and culturally relevant ways for diverse populations.

Although most participants did not carry pet insurance, those who did reported the highest personal pet care scores. While these differences were not statistically significant across all analyses, the pattern suggests that pet insurance ownership may reflect broader engagement in preventive pet healthcare behaviors. Participants who purchase insurance may be more proactive in seeking veterinary services and in planning financially for long-term pet care needs. This finding is particularly relevant given rising veterinary care costs and increasing discussion of financial barriers to pet ownership (Applebaum et al., 2020). Improving public awareness of

how pet insurance works and increasing insurance literacy may help reduce delays in seeking veterinary care.

Interestingly, feeding practices varied considerably among participants, with about 12% reporting feeding fresh or raw diets. However, the feeding method was not associated with the frequency of veterinary visits. This finding suggests that alternative feeding practices do not necessarily indicate neglect of veterinary care, despite ongoing public debate about the safety and nutritional adequacy of raw feeding. The growing popularity of raw and fresh feeding likely reflects broader trends in human health culture, natural wellness movements, and distrust of processed foods. Because pet owners may obtain nutritional information from social media, influencers, or informal online communities, veterinarians and animal health professionals may benefit from emphasizing evidence-based nutrition education while maintaining nonjudgmental communication with pet owners (Dodd et al., 2019).

The findings also showed strong relationships among multiple responsible care attitudes. Participants who supported spaying and neutering were significantly more likely to support microchipping, indicating that preventive pet care behaviors cluster conceptually. Individuals who value one form of preventive responsibility may also be more likely to adopt additional welfare-oriented behaviors. This clustering may offer opportunities for veterinarians, shelters, and animal welfare organizations to bundle educational messaging around preventive care practices rather than addressing them in isolation.

Despite generally positive attitudes toward animal welfare, personal pet care scale scores indicated only moderate engagement in positive pet care behaviors overall. This discrepancy underscores the distinction between knowledge and implementation. Participants may understand appropriate pet care practices yet still face barriers to consistently applying them. Financial limitations, transportation access, time constraints, veterinary shortages, and regional differences in animal services may all contribute to gaps between attitudes and behaviors. Previous literature has similarly identified socioeconomic factors as important influences on veterinary utilization and access to preventive pet care (AVMA, 2021).

Future Implications

The present study also contributes to the limited literature on public perceptions of stray animals and community animal welfare practices. Participants generally expressed support for

intervening when witnessing abuse and concern about unsafe pet rehoming practices on social media. These findings suggest growing public awareness of the risks associated with informal pet transfers, including exploitation, neglect, and unsafe placements. Increased collaboration among shelters, veterinary clinics, and community organizations may help improve public understanding of safe rehoming, fostering, and reporting procedures. Future research should explore causal relationships between knowledge and behavior, as well as longitudinal changes in pet care practices. More targeted analyses of feeding practices and stray animal management may also provide deeper insights into these domains. Integrating theoretical frameworks such as the Health Belief Model may further strengthen understanding of how beliefs translate into action.

Limitations

Several limitations should be considered when interpreting these findings. First, the study used a convenience sample recruited primarily through social media and LSU-affiliated networks, which may limit generalizability. The sample was predominantly female, White, well-educated, and higher-income, potentially underrepresenting more diverse populations and pet ownership experiences. Self-reported data may also introduce social desirability bias, particularly on sensitive topics related to animal welfare and responsible ownership. Additionally, because this study was cross-sectional, causal relationships between demographic characteristics and pet care behaviors cannot be established. Despite these limitations, this study provides important insight into how U.S. pet owners conceptualize and practice responsible companion animal care. The findings underscore the importance of education, awareness of preventive care, and accessible veterinary resources in promoting positive pet welfare outcomes.

Conclusion

This study offers insight into how U.S. dog and cat owners understand and practice responsible companion animal care, including preventive veterinary care, feeding practices, and animal welfare behaviors. Overall, participants held positive attitudes toward pet health and welfare, particularly regarding routine veterinary visits, microchipping, and intervention in suspected abuse. However, the findings also revealed important differences in pet care knowledge and behaviors across demographic groups, with female participants and those with higher educational attainment generally reporting stronger responsible care practices.

While many participants demonstrated strong awareness of recommended pet care practices, personal pet care behaviors were only moderately consistent overall, suggesting that knowledge alone may not always translate into action. Factors such as financial barriers, access to veterinary resources, literacy, and reliance on informal sources of nutritional information may affect owners' ability to implement best practices consistently. Additionally, variation in feeding approaches and attitudes toward managing stray animals highlights the complexity of modern pet ownership and the growing influence of social, cultural, and online information environments on owners' decision-making.

These findings underscore the ongoing need for accessible, evidence-based education on preventive pet care, nutrition, and safe animal welfare practices. Veterinarians, shelters, and animal welfare organizations may benefit from developing community outreach strategies to improve public understanding of topics such as spaying and neutering, microchipping, fostering, and responsible rehoming. Efforts to increase pet insurance awareness and reduce barriers to preventive veterinary care may also help improve long-term companion animal health outcomes.

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