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## Effect of Adopters' Lifestyles and Animal-Care Knowledge on Their Expectations Prior to Companion-Animal Guardianship

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### ABSTRACT

Human expectations can greatly affect the human–companion animal relationship, sometimes putting nonhuman animals at risk for relinquishment. At 20 animal shelters in Southern Ontario, Canada, potential adopters ( $N = 234$ ) completed a questionnaire regarding their lifestyle, companion animal-care knowledge, and preadoption expectations of their adopted companion animals. Linear mixed models were used to assess the associations of adopters' lifestyles and companion animal-care knowledge with their expectations for animal behavior, the human–companion animal relationship, and the effort required in companion-animal guardianship. Dog adopters had higher expectations than cat adopters for their companion animal's behavior ( $p < .001$ ), the human–companion animal relationship ( $p < .001$ ), and the effort required in companion-animal guardianship ( $p < .001$ ). Adopters' human relationship statuses were also associated with expectations for the human–companion animal relationship ( $p = .002$ ). As adopters' companion animal-care knowledge increased, so did their expectations for the effort required in companion-animal guardianship ( $p < .001$ ). An understanding of adopters' expectations prior to adoption will help animal shelters better match, educate, and prepare adopters for their lives with companion animals.

### KEYWORDS

Adoption; companion animal; expectation; owner

Companion animals are becoming increasingly important to our society. We have never spent more time or money on nonhuman animals who are kept simply for companionship (Case, 2008). Societal changes, resulting in more hectic and rushed lives, might have increased the attractiveness of having a companion animal who may offer relaxation, humor, enthusiasm, and play (Walsh, 2009). Many caretakers consider their companion animals to be friends, family members, or children and sources of unconditional love (Belk, 1996). Animal companionship can be particularly important to people who are undergoing life events such as divorce, grieving the loss of loved ones, or diagnoses of mental or physical illnesses (Walsh, 2009). Individuals often turn to their companion animals for comfort and companionship (Walsh, 2009).

Research has suggested most adopters are satisfied with their adoption experiences and their adopted animals (Neidhart & Boyd, 2002). However, factors including caretaker life stage, childhood companion-animal experience, animal behavior, and caretaker expectations for companion-animal guardianship affect a caretaker's attachment to an animal (Curb, Abramson, Grice, & Kennison, 2013; Kidd & Kidd, 1989; Serpell, 1996; Woodward & Bauer, 2007). Compatibility between the needs and expectations of the caretaker and the behavior of the companion animal can increase the caretaker's satisfaction with, and attachment to, the animal (Curb et al., 2013; Woodward & Bauer, 2007). However, unrealistic and unmet caretaker expectations and undesirable companion-animal behavior

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have been frequently reported in North America as reasons for relinquishment of companion animals to shelters (Houpt, Honig, & Reisner, 1996; Miller, Staats, Partlo, & Rada, 1996; New et al., 2000).

Factors that can affect a caretaker's expectations for companion-animal guardianship include caretaker lifestyle characteristics (Bennett & Rohlf, 2007; Kidd, Kidd, & George, 1992). For example, one study showed that women and people without children had higher expectations than their counterparts (i.e., men and parents) that a companion animal would be a confidante for them to love and touch (Kidd et al., 1992). Further, research has shown that past dog guardianship experience is an important factor in the perception of dog behavior and negatively correlates with guardians' perceptions of their dogs as being nervous, anxious and destructive, excitable, or disobedient (Bennett & Rohlf, 2007).

Knowledge about companion-animal guardianship may also be influential in the development of caretaker expectations. Previous research has shown that many caretakers and people who relinquish animals (i.e., relinquishers) lack knowledge regarding companion-animal behavior and training (New et al., 2000; Salman, New, Scarlett, & Kass, 1998). Furthermore, a number of animal behaviors reported as problematic or undesirable by caretakers are considered normal by veterinarians (Houpt et al., 1996), suggesting a potential mismatch between caretaker expectations and their knowledge about companion animals. Currently, no study has been conducted to directly explore the association between prior companion animal-care knowledge and caretaker expectations.

Human expectations can play a significant role in the quality and strength of the human-companion animal relationship. However, few studies have explored these expectations and their association with caretaker characteristics, such as experience with, and knowledge of, companion-animal guardianship. Understanding potential adopters' expectations will benefit animal sources in developing relevant screening and educational programs that assist in managing adopter expectations and can inform adopters' prior knowledge regarding companion-animal guardianship. The objective of this study was to explore whether adopter lifestyle characteristics, prior companion-animal experience, and current knowledge are associated at the time of adoption with the adopter's expectations as a caretaker, of the companion animal, and of their relationship with the companion animal.

## **Materials and methods**

A cross-sectional study was performed from early February to early July 2013 and involved potential adopters at 20 shelter locations in Southern Ontario, including the Ontario Society for the Prevention of Cruelty to Animals (SPCA) branches, SPCA-affiliated animal shelters, and municipal pounds.

The study was approved by the University of Guelph Research Ethics Board (REB#12OC008).

### ***Adopters' Expectations Questionnaire development***

A questionnaire, developed in four phases, was constructed to measure adopters' expectations for companion-animal ownership and their knowledge regarding animal care. The questionnaire is available upon request from the authors.

The first phase involved generating and compiling expectation items. Published articles pooled under the category, "expectations of companion-animal ownership," as an ancillary part of a prior scoping study (Coe et al., 2014), were read to compile an initial list of items to include in an expectations questionnaire. The list of articles reviewed is available upon request from the authors. Additional expectation items were generated using interview transcripts from a previous qualitative study (R. O'Connor, Coe, Niel, & Jones-Bitton, *in press*). All items were placed in a 7-point Likert response format (1 = *strongly disagree*, 2 = *moderately disagree*, 3 = *mildly disagree*, 4 = *neutral*, 5 = *mildly agree*, 6 = *moderately agree*, and 7 = *strongly agree*).

The second phase involved reducing the initial number of expectation items for the final questionnaire via two rounds of elimination. The first round involved the first and second authors and

a colleague familiar with the topic (reviewers). Items were independently rated by each of the reviewers as “keep” or “discard” on the basis of each item’s relevance and wording. Items that received three “keeps” were retained, and items that received two “keeps” and one “discard” were discussed among the group until consensus was reached to keep or discard; otherwise, items were discarded. A second round of elimination, involving two additional colleagues familiar with the topic and using the same process, was performed to further decrease the number of expectation items for the final questionnaire.

In Phase 3, a knowledge section was generated using the content and themes of the OSPCA website and from past studies involving assessment of animal-care knowledge (New et al., 2000; Reisner & Shofer, 2008; Salman et al., 1998). A new scale was constructed from these sources to assess participant knowledge on a variety of topics simultaneously. “True,” “false,” and “I don’t know” response options were used for each generated knowledge item according to the format of previous studies (New et al., 2000; Salman et al., 1998). An animal-care knowledge score was calculated by summing the knowledge item scores for each individual; correct answers were given a score of 1, whereas wrong answers and “I don’t know” responses were given a score of 0. This score was used to capture knowledge regarding animal health, behavior, training, and the cost of care in the region where the study was conducted (Ontario Veterinary Medical Association, 2012). The questionnaire also included a demographic section developed by the authors.

In Phase 4, the questionnaire was pretested to assess face and content validity by gaining overall feedback and impressions from 13 individuals on the ability of the questionnaire to assess adopters’ expectations and knowledge. The pretest also generated feedback on specific “expectation” statements to ensure the participant interpreted the item correctly.

The pretest was used to inform the removal of additional expectation items from the Adopters’ Expectations section of the questionnaire. Removal was based on a frequency of endorsement greater than .9 for an item, meaning 90% of participants predictably selected the same response option (Streiner, 1994).

### **Study participants**

A list of OSPCA branches ( $n = 13$ ) and OSPCA-affiliated animal shelters ( $n = 27$ ) was obtained through the OSPCA website, and municipal pound locations were found online using the search “municipal pounds Ontario” in Google. The principal author spoke to the manager of each shelter location regarding their interest in being involved in the study. From an online list of municipal pounds and shelters (Paws With Heart, 2011), a subset of municipal pounds providing adoption services ( $n = 12$ ) was contacted.

Shelter staff members recruited individuals interested in adopting a cat or dog via a standardized script. The script explained the study to potential participants and offered an incentive for their participation (i.e., 1 in up to 500 chance of winning an iPad). Inclusion criteria for the study included English-speaking male or female individuals aged 18 years or older who were completing the final stage of adoption. Individuals who agreed to participate in the study were required to read and sign the consent form and then complete a paper copy of the questionnaire at the respective animal shelter locations prior to bringing home their adopted companion animals. Upon completion of the questionnaire, participants were asked to put the questionnaire and signed consent form in an envelope, seal the envelope, and then return the envelope to the shelter staff member to ensure confidentiality. In consenting to participate in the study, participants also agreed to two follow-up phone calls occurring 1 month and 3 months after adoption that were used to determine whether the participant retained the adopted companion animal.

An employed research assistant entered questionnaire data into Access (version 2007, Microsoft Canada, Mississauga, ON, Canada) for data management. The principal author checked entered data for errors and cleaned the data by comparing data entries to original hard paper copies of participants’ surveys.

### ***Exploratory factor analysis of the Adopters' Expectations Questionnaire***

Principal components analysis was used to identify possible factors being measured by the Adopters' Expectations section of the questionnaire. Both the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy and the Bartlett's Test of Sphericity were considered to assess the suitability of conducting factor analysis (Pallant, 2010). To account for possible correlations between factors, a direct oblimin rotation was performed. Horn's parallel analysis was used to confirm the final number of factors that should be retained (Horn, 1965; B. P. O'Connor, 2000).

Items with factor loadings that were less than .30 were excluded (Streiner, 1994). Items that loaded onto more than one factor suggested that the item had a relationship with two or more factors. These items were removed if the difference between their factor loadings was .10 or less and if the factors they had loaded onto had at least three other variables loading onto them (Streiner, 1994).

Remaining items under each factor were further assessed for suitability for retention using three criteria: (a) keeping the item would improve the factor's Cronbach's alpha (i.e., the scale's reliability); (b) the item had an interitem correlation of .20 to .40, which was deemed acceptable (Briggs & Cheek, 1986); and (c) the item plausibly matched the overall factor's construct. Items were removed if at least two of three of these criteria were not met.

Scores for each expectation factor were calculated for each participant by summing the ratings of all the items under the factor and dividing the sum by the number of items under the factor to give a mean score out of 7.0. Exploratory factor analysis and reliability analysis were conducted using the Statistical Package for the Social Sciences (Version 20.0, IBM, Armonk, NY).

### ***Statistical analysis***

Descriptive statistics were performed on the independent variables using frequencies for categorical variables and using mean, standard deviation, median, and minimum and maximum values for continuous variables.

Due to the small cell size, some categories for the variables of age, living situation, relationship status, and number of children aged 13 years or younger were collapsed (Table 1). The type of animal an individual was interested in adopting was collected as one item on the demographic questionnaire. This information was subsequently separated into one variable capturing the species desired (dog or cat) and a second variable capturing the age desired (young, adult, or both [i.e., no preference]; Table 2).

Linear mixed models were produced for each of the four independent expectation scores. Random effects introduced by shelter nested in shelter type were controlled by using linear mixed modeling. For each model, independent variables included the following: (a) type of shelter (i.e., ASPCA branch, ASPCA-affiliated shelter, municipal pound); (b) gender of adopter; (c) age of adopter in years; (d) adopter living situation; (e) type of residential area; (f) relationship status; (g) number of children in the household aged 13 years or younger; (h) childhood animal experience; (i) previous animal guardianship experience; (j) current companion-animal guardianship status; (k) the type and (l) age of the animal of interest (i.e., the animal the participant planned to adopt); (m) the highest level of education the adopter had completed; (n) annual household income; (o) animal-care knowledge score; and (p) animal field experience (i.e., whether the participant fostered, volunteered, or worked at an animal shelter or pet store). See Tables 1, 2, and 3.

The first stage of model building consisted of conducting univariable models with each of the four expectation scores. All variables associated with the expectation score(s) at  $p \leq .20$  were included in the initial multivariable model of main effects for the relevant expectation score. Manual backward selection was then used to remove nonsignificant variables ( $p > .05$ ), one at a time, starting with the highest  $p$  value. The presence of confounding was assessed simultaneously; if the removal of a variable resulted in a change of 20% or more in the coefficient of variable(s) remaining in the model, the removed variable was considered a confounder and was retained. Biologically or socially plausible interactions among the remaining variables in the reduced main-effects model were individually tested

**Table 1.** Participant characteristics.

Variable	n	Frequency (%)
<b>Gender</b>		
Male	64	27.35
Female	169	72.22
<b>Age (in years)<sup>a</sup></b>		
18–29	77	32.91
30–39	47	20.09
40–49	52	22.22
50–59	28	11.97
60 or older	30	12.82
<b>Area</b>		
Rural	85	36.32
Suburban	84	35.90
Urban	59	25.21
<b>Living situation<sup>b</sup></b>		
Rent	64	27.35
Own	158	67.52
Other (e.g., live with parents, live-in manager of residence, travel from place to place)	11	4.70
<b>Relationship status<sup>c</sup></b>		
Single	51	21.98
Living common law	54	23.28
Married	94	40.52
Divorced	25	10.78
Widowed	8	3.45
<b>Number of children 13 years or younger in household<sup>d</sup></b>		
Zero	151	64.53
One	34	14.53
Two	38	16.24
Three or more	11	4.70
<b>Education level</b>		
High school or equivalent	49	20.94
Vocational/technical school	7	2.99
Some college/university	38	16.24
College diploma	69	29.49
Bachelor's degree	46	19.66
Master's degree	12	5.13
Doctoral degree	4	1.71
Professional degree	7	2.99
Other (not specified)	1	0.43
<b>Annual household income</b>		
Less than \$10,000	10	4.27
\$10,000–\$19,999	15	6.41
\$20,000–\$39,999	35	14.96
\$40,000–\$59,999	34	14.53
\$60,000–\$79,999	50	21.37
\$80,000–\$99,999	29	12.39
\$100,000–\$119,999	12	5.13
\$120,000–\$139,999	18	7.69
\$140,000–\$159,999	7	2.99
More than \$160,000	12	5.13

Note. Demographic information of 234 participants completing the questionnaire from February 2013 to July 2013 at various animal shelters across Southern Ontario, Canada (numerical variation due to missing values).

<sup>a</sup>Original categories were 18 to 19 years, 20 to 24 years, 25 to 29 years, 30 to 34 years, 35 to 39 years, 40 to 44 years, 45 to 49 years, 50 to 54 years, 55 to 59 years, and 60 years or older.

<sup>b</sup>Original categories were renting an apartment, renting a house, owning a house/condo, and other.

<sup>c</sup>Original categories were single, living under common law, married, separated, divorced, widowed, and other.

<sup>d</sup>Original categories were one, two, three, four, five or more, and none.

for significance ( $p \leq .05$ ). All significant interactions were then added to the reduced main-effects model simultaneously, and manual backward selection was used to remove nonsignificant interaction terms and main effects ( $p > .05$ ) to produce a final reduced model.

**Table 2.** Participant companion-animal experience.

Variable	n	Frequency (%)
<b>Childhood animal experience<sup>a</sup></b>		
Yes	221	94.44
No	13	5.56
<b>Previously had companion animal(s)</b>		
Yes	222	94.87
No	12	5.13
<b>Currently have companion animal(s)</b>		
Yes	179	76.50
No	55	23.50
<b>Animal of interest<sup>b</sup></b>		
<b>Type</b>		
Cat	146	63.20
Dog	85	36.80
<b>Age</b>		
Young	101	43.72
Adult	116	50.22
No preference	14	6.06

Note. Previous and current companion-animal experience and guardianship and type of animal interested in adopting for 234 participants who filled out questionnaires from February 2013 to July 2013 in various animal shelters across Southern Ontario, Canada (numerical variation due to missing values).

<sup>a</sup> Childhood animal experience: having companion animals in the household as a child.

<sup>b</sup> Original categories were kitten, adult cat, senior cat, puppy, adult dog, and senior dog.

Residual analyses were conducted to assess the linear mixed-model assumptions. Transformations were attempted for models with non-normal distributions.

Descriptive statistics and linear mixed modeling were conducted using SAS (Version 9.3, SAS Institute, Cary, NC).

## Results

### **Adopters' Expectations Questionnaire development and structure**

The initial elimination round conducted by the first two authors and a colleague resulted in 68 expectation items being kept out of the initial 667 items generated. The second elimination round resulted in 47 expectation items being retained, all of which were used in the final version of the questionnaire. For the Knowledge section of the questionnaire, 34 items were generated.

### **Study participants**

Of 52 locations contacted, 20 (38.46%) participated in the study, including 12 OSPCA branches, 4 OSPCA-affiliated animal shelters, and 4 municipal pounds. Three shelters participated in recruitment for 9 weeks and contributed 11.54%, 2.99%, and 29.49% of the questionnaires used in data analysis, respectively; the remaining shelters recruited participants for 18 weeks. Of the 3 shelters that recruited participants for a shortened period of time, 1 shelter declined further participation because they had become too busy preparing for summer events to continue, the 2nd shelter felt its staff were feeling overwhelmed, and the 3rd shelter gave no reason for not extending the study.

A total of 234 individuals filled out the study questionnaire across all 20 locations. Demographic information for the 234 participants is provided in [Table 1](#). Information regarding previous and current animal experience of the participants and the type of adopted animal desired is shown in [Table 2](#). The majority of participants (76.50%) were current companion-animal caretakers. Approximately two thirds (63.20%) of participants had planned to adopt a cat and approximately one third (36.80%) had planned to adopt a dog.

**Table 3.** Participant knowledge regarding companion-animal care.

Knowledge item	Responses, # (%)		
	True	False	I don't know
There are <b>no</b> behavior differences between breeds.	4 (1.71%)	203 (86.75%)*	21 (8.97%)
Unspayed female dogs go into heat about twice per year.	85 (36.32%)*	28 (11.97%)	112 (47.86%)
Dogs and cats need shots or can get sick/die.	200 (85.47%)*	14 (5.98%)	13 (5.56%)
If a pet gains or loses a lot of weight, it could be a sign that the pet is sick.	216 (92.31%)*	2 (0.85%)	10 (4.27%)
One must catch a dog/cat in the act of doing something wrong to correct them.	167 (71.37%)*	39 (16.67%)	19 (8.12%)
Unspayed female cats go into heat twice per year.	48 (20.51%)*	45 (19.23%)*	133 (56.84%)
It is better for both female dogs and cats to have one litter before being spayed (i.e., "fixed").	11 (4.70%)	138 (58.97%)*	76 (32.48%)
Cats scratch/pounce/bite as a form of play.	187 (79.91%)*	16 (6.84%)	22 (9.40%)
Rubbing the pet's nose in animal messes is a good way to discipline them.	14 (5.98%)	172 (73.50%)*	39 (16.67%)
It's cruel to keep cats indoors.	15 (6.41%)	191 (81.62%)*	18 (7.69%)
Cats and dogs misbehave out of spite.	40 (17.09%)	142 (60.68%)*	42 (17.95%)
Neutering/fixing an animal changes its relationship with its owner.	18 (7.69%)	160 (68.38%)*	48 (20.51%)
It costs <b>less</b> than \$400 per year to maintain a cat.	55 (23.50%)	97 (41.45%)*	74 (31.62%)
There is a critical period for socialization for puppies and kittens.	167 (71.37%)*	10 (4.27%)	48 (20.51%)
Whether an adult dog bites is mostly determined by its genetic makeup/breed, regardless of training.	13 (5.56%)	170 (72.65%)*	42 (17.95%)
The 1st year of owning a kitten will cost <b>less</b> than \$800.	68 (29.06%)	59 (25.21%)*	98 (41.88%)
It is important to gradually introduce new pets to existing pets.	203 (86.75%)*	6 (2.56%)	15 (6.41%)
A clean litter box is very important to a cat.	216 (92.31%)*	3 (1.28%)	8 (3.42%)
Cats <b>do not</b> really need exercise	8 (3.42%)	202 (86.32%)*	16 (6.84%)
If a pet starts drinking a lot of water, it could be a sign that the pet is sick.	168 (71.79%)*	18 (7.69%)	40 (17.09%)
The 1st year of owning a puppy will cost <b>more than</b> \$1,500.	85 (36.32%)*	33 (14.10%)	105 (44.87%)
It is important that as the owner, I establish myself as "Alpha" or the "pack leader."	165 (70.51%)	17 (7.26%)*	42 (17.95%)
A child should never be left unattended with a dog.	148 (63.25%)*	53 (22.65%)	21 (8.97%)
It is important to have at least one litter box per cat in the household.	166 (70.94%)*	28 (11.97%)	28 (11.97%)
Giving pets a reward is better for training a pet than punishment.	199 (85.04%)*	9 (3.85%)	16 (6.84%)
Kittens <b>do not</b> need as much socialization as puppies.	29 (12.39%)	140 (59.83%)*	53 (22.65%)
It costs <b>more than</b> \$600 per year to maintain a dog.	124 (52.99%)*	23 (9.83%)	74 (31.62%)
Dogs who are properly trained do not bite people, regardless of what provokes the dog.	55 (23.50%)	127 (54.27%)*	40 (17.09%)
Most municipalities require dog owners to license their dog(s) every year.	191 (81.62%)*	3 (1.28%)	28 (11.97%)
Pets should be prepared for the arrival of a new baby by exposing them to baby-related objects before bringing the baby home.	170 (72.65%)*	9 (3.85%)	46 (19.66%)
Children often are scratched by cats or bitten by dogs because of the child's behavior.	133 (56.84%)*	41 (17.52%)	51 (21.79%)
When off the property of their owner, pets must be on a leash, contained, and/or under control of the owner except in designated areas (e.g., leash-free dog parks).	197 (84.19%)*	5 (2.14%)	16 (6.84%)
Different breeds have different energy levels.	207 (88.46%)*	1 (0.43%)	10 (4.27%)
Behavior problems in pets can be a result of stressful events and/or changes to the pet's environment.	203 (86.75%)*	4 (1.71%)	11 (4.70%)

Note. Knowledge regarding cost of companion-animal guardianship, dog and cat reproductive health, socialization, companion-animal behavior, and training among 234 dog and cat adopters from animal shelters across Southern Ontario, Canada, from February 2013 to July 2013 (number discrepancies due to missing values).

\*Correct answer. "I don't know" responses were given a score of 0 in calculating participant knowledge scores.

At the time of the 1-month and 3-month follow-up phone calls with participants, responses of 78.97% and 71.96% were achieved, respectively, and five individuals (2.76%) indicated having returned their adopted animals since enrolling in the study.

### **Animal-care knowledge**

The mean animal-care knowledge score was 24 out of 34 (median = 25; range = 0–33; [Table 3](#)). The highest proportion of incorrect responses was seen for items related to the cost of caring for a kitten or puppy in the 1st year, the annual cost of cat or dog guardianship, reproductive health, and some areas of animal behavior and training.

### **Exploratory factor analysis**

When principal components analysis was performed, the KMO value was .83 and the Bartlett's test was significant ( $p < .001$ ), supporting the use of factor analysis. Horn's parallel analysis identified that four factors should be retained. All intercorrelations among factors were small, indicating factors were related but measured different concepts; therefore, a four-factor solution was deemed appropriate.

From the initial 47-item expectations questionnaire, 9 items were removed during factor analysis because they had loaded onto two or more factors, and the difference in their loadings was similar (.10 or less). Two additional items were discarded because they did not meet at least two of the three criteria for retention previously described.

Factor 1 (12 items) represented “animal behavior” and explained 21.09% of the variance in adopters’ expectations ([Table 4](#)). The mean expectation score for “animal behavior” was 4.82 out of 7.00 (median = 4.92; range = 1.75–7.00).

Factor 2 (7 items) represented “adopter sense of responsibility” and explained 10.91% of the variance in adopters’ expectations ([Table 4](#)). The mean expectation score for the “adopter sense of responsibility” scale was 6.50 out of 7.00 (median = 6.71; range = 3.29–7.00).

Factor 3 (9 items) represented the “human–companion animal relationship” and explained 7.48% of the variance in adopters’ expectations ([Table 4](#)). For the “human–companion animal relationship” scale, the mean expectation score was 5.21 out of 7.00 (median = 5.22; range = 1.22–7.00).

Factor 4 (8 items) represented the “effort required in companion-animal guardianship” and explained 5.75% of the variance in adopters’ expectations ([Table 4](#)). A high score reflected an expectation that a companion animal would require minimal effort. The mean expectation score for the “effort required in companion-animal guardianship” scale was 4.34 out of 7.00 (median = 4.38; range = 1.75–7.00).

### **Variables associated with adopters’ expectations**

The pattern of residuals plotted against the predicted values for “adopter sense of responsibility” expectations model was highly left-skewed, and due to the outcome variable being a score, a transformation resulted in biologically implausible interpretations, making further analysis impossible. For the other three expectation models, shelter nested in shelter type was not statistically significant as a random effect; however, it was maintained in the model to account for potential clustering by shelter.

The final model for expectations of “animal behavior” included type of animal of interest ([Table 5](#)). The final model for expectations of the “human–companion animal relationship” included type of animal of interest and the relationship status of adopters ([Table 6](#)). Post-hoc tests were done on least-squares means by using Tukey’s adjustments for multiple comparisons for the variable relationship status. The final model for expectations of “effort required in companion-animal ownership” included type of animal of interest and animal-care knowledge ([Table 7](#)).

### **Discussion**

The present study explored the associations between specific adopter lifestyle characteristics and animal-care knowledge with potential adopters’ expectations for their animal’s behavior, the emotional

**Table 4.** Summary statistics for expectation factors: Animal behavior, adopter sense of responsibility, human–companion animal relationship, and effort required in companion-animal guardianship.

Factor		Minimum value	Maximum value	Item mean	Item median	Oblimin-rotated factor loading
<b>Factor 1: Animal behavior</b>						
I expect my pet to not cause injury to me.		1.00	7.00	5.43	6.00	.78
I expect my pet to not be nervous.		1.00	7.00	4.37	4.00	.72
I expect my pet to come when I call him/her.		1.00	7.00	4.77	5.00	.71
I expect my pet to be obedient.		1.00	7.00	4.76	5.00	.71
I expect my pet to not be hyper.		1.00	7.00	3.98	4.00	.68
I expect my pet to not run away.		1.00	7.00	5.06	5.00	.67
I expect my pet to not be destructive.		1.00	7.00	4.92	5.00	.62
I expect my pet to not catch rodents/wildlife.		1.00	7.00	4.09	4.00	.58
I expect my pet to get along with other animals and pets.		1.00	7.00	5.44	6.00	.54
I expect my pet to not be aggressive.		1.00	7.00	5.78	6.00	.53
I expect my pet to be good with children.		1.00	7.00	5.40	6.00	.47
I expect my pet to be quiet.		1.00	7.00	3.80	4.00	.36
<b>Factor 2: Adopter sense of responsibility</b>						
I expect getting a pet is a long-term commitment.		1.00	7.00	6.73	7.00	.82
I expect there may be unexpected costs associated with my pet.		3.00	7.00	6.46	7.00	.74
I expect to take an active role in helping my pet adjust to his/her new surroundings.		2.00	7.00	6.48	7.00	.65
I expect to be the primary caregiver of my pet.		1.00	7.00	6.29	7.00	.63
I expect to take my pet to the veterinarian yearly.		1.00	7.00	6.48	7.00	.58
I expect my pet to be spayed/neutered.		1.00	7.00	6.26	7.00	.49
I expect to consider my pet part of my family.		4.00	7.00	6.85	7.00	.35
<b>Factor 3: Human–companion animal relationship</b>						
I expect my pet to be a form of emotional support.		1.00	7.00	5.05	5.00	-.81
I expect my pet will make me feel safe.		1.00	7.00	4.20	4.00	-.75
I expect to consider my pet my "child."		1.00	7.00	4.80	5.00	-.69
I expect my pet to be able to sense how I am feeling.		1.00	7.00	4.74	5.00	-.69
I expect my pet to reduce my stress.		1.00	7.00	4.68	5.00	-.64
I expect my pet to be excited to see me when I come home.		1.00	7.00	5.63	6.00	-.64
I expect my pet to be my companion.		1.00	7.00	6.07	6.00	-.63
I expect having a pet will benefit my health.		1.00	7.00	5.30	6.00	-.53
I expect I will have to play with my pet.		1.00	7.00	6.44	7.00	-.45
<b>Factor 4: Effort required in companion-animal guardianship</b>						
I do not expect I will have to make changes to my schedule to accommodate my new pet.		1.00	7.00	3.35	3.00	.67
I expect my pet to be low-maintenance.		1.00	7.00	3.59	4.00	.62
I expect my pet to be independent.		1.00	7.00	4.66	4.00	.54
I expect taking care of a pet just requires common sense.		1.00	7.00	5.21	5.00	.51
I expect my pet to be able to be home alone for extended periods of time (e.g., during the work day).		1.00	7.00	4.95	5.00	.49
I expect my pet's personality to be the same at home as it was at the shelter.		1.00	7.00	3.87	4.00	.47
I expect my pet to be house-trained (i.e., not urinate/defecate in the house).		1.00	7.00	5.30	6.00	.45
I expect my pet to shed only a small amount.		1.00	7.00	3.76	4.00	.38

Note. Expectation factors determined via an exploratory factor analysis. Items were rated using a 7-point Likert response format, where 1 = *strongly disagree*, 2 = *moderately disagree*, 3 = *slightly disagree*, 4 = *neutral*, 5 = *slightly agree*, 6 = *moderately agree*, and 7 = *strongly agree*, for the 234 adopters who filled out questionnaires from February 2013 to July 2013 in various animal shelters across Southern Ontario, Canada (number discrepancies due to missing values).

relationship between adopter and adopted animal, and the effort required to care for an animal prior to acquiring him or her. The findings provide support that specific lifestyle characteristics and knowledge are associated with certain aspects of adopters' expectations. An understanding of these expectations for companion-animal guardianship can be used to tailor individual educational interventions to ensure adopters have realistic expectations for their animals, thereby aiding in the success of companion-animal adoptions.

In the present study, individuals interested in adopting dogs had higher expectations of the animal's behavior than did individuals interested in adopting cats. In general, dogs tend to be larger and are seen

**Table 5.** Linear mixed model for the expectation factor of "animal behavior" (Factor 1).

Variable	Estimate	95% Confidence Interval	p value
<b>Type of animal of interest</b>	<.001		
Dog	5.13	[4.92, 5.34]	
Cat	4.56	[4.43, 4.75]	

Note. Derived from questionnaire data from 205 dog and cat adopters from animal shelters across Southern Ontario, Canada, from February 2013 to July 2013. Predicted values were scored out of 7.

**Table 6.** Linear mixed model for the expectation factor of "human–companion animal relationship" (Factor 3).

Variable	Estimate	95% Confidence Interval	p value
<b>Type of animal of interest</b>	<.001		
Dog	5.65	[5.35, 5.95]	
Cat	5.17	[4.90, 5.43]	
<b>Relationship status</b>	.002		
Divorced <sup>ab</sup>	4.88	[4.46, 5.30]	
Living under common law	5.34	[5.03, 5.66]	
Married <sup>cd</sup>	5.07	[4.80, 5.33]	
Single <sup>ac</sup>	5.57	[5.24, 5.90]	
Widowed <sup>bd</sup>	6.19	[5.44, 6.94]	

Note. Derived from questionnaire data from 207 dog and cat adopters from animal shelters across Southern Ontario, Canada, from February 2013 to July 2013. Post-hoc tests were done on least-squares means by using Tukey's adjustments for multiple comparisons. Variable-level estimates given the same superscript letters (a–d) were significantly (adjusted  $p < .05$ ) different from each other. Predicted values were scored out of 7.

as being more interactive with their caretakers than cats. Therefore, their less desirable behaviors may seem more intrusive than the undesirable behaviors of cats (Serpell, 1996). In addition, because dogs are more likely to share in activities with caretakers outside of the home and interact with other people and animals more often than cats, it is not surprising that good behavior is more important for dog adopters than it is for cat adopters (Serpell, 1996). This finding is supported by another study that showed the reasons for satisfaction with a companion animal differed between cat and dog adopters (Neidhart & Boyd, 2002).

Cat adopters gave reasons for satisfaction that were social in nature, such as the cat being friendly and loving, whereas dog adopters tended to emphasize behavior, such as being obedient and well behaved (Neidhart & Boyd, 2002). The larger emphasis on behavior by dog caretakers has also been supported by studies conducted on companion-animal relinquishment (Diesel, Pfeiffer, & Brodbelt, 2008; Miller et al., 1996; New et al., 2000; Patronek, Glickman, Beck, McCabe, & Ecker, 1996). Although behavior has been reported as a reason for relinquishment of both dogs and cats, undesirable behavior seems to play a smaller role in the relinquishment of cats (New et al., 2000).

**Table 7.** Linear mixed model for the expectation factor of "effort required in companion-animal guardianship" (Factor 4).

Variable	Estimate	95% Confidence Interval	p value
<b>Type of animal of interest</b>	<.001		
Dog	3.88	[3.67, 4.10]	
Cat	4.50	[4.33, 4.67]	
<b>Animal-care knowledge</b>	-0.05	<.001	

Note. Derived from questionnaire data from 221 dog and cat adopters from animal shelters across Southern Ontario, Canada, from February 2013 to July 2013. Predicted values were scored out of 7. A high score reflected an expectation that a companion animal would require minimal effort.

The current research suggests the importance of good behavior to dog adopters specifically and, subsequently, the importance of managing this expectation. This finding provides an increased opportunity for educational intervention to improve the success of adoptions. Receiving helpful advice and engaging in training classes affect a caretaker's perception of the dog's behavior and reduce the risk for relinquishment (Bennett & Rohlf, 2007; Diesel et al., 2008; Patronek et al., 1996). Previous research has shown that dog caretakers who engaged in dog training reported that their dogs were more obedient, friendlier, and less aggressive toward others and were less nervous and less likely to bark (Bennett & Rohlf, 2007). Training classes may help provide tools to minimize undesirable behaviors, increase a caretaker's understanding of dog behavior, and give a sense of control, thereby potentially enhancing the relationship between caretaker and animal (Diesel et al., 2008). Development of future educational programs to teach constructive ways to minimize undesirable behaviors would be beneficial, particularly for dogs.

In the present study, adopters' expectations for the emotional relationships they will have with companion animals were associated with the type of animal being adopted and the adopter's human relationship status. Dog adopters had higher expectations of the emotional bond with the adopted companion animal than did those interested in adopting cats. This finding is supported by the results of another study that showed dog adopters had higher expectations than cat adopters that their companion animal would be a confidante, companion, and a form of emotional support (Kidd et al., 1992). Although reasons given for adoption satisfaction for cat adopters have been social in nature, cats are generally perceived to be more flighty, more aloof, less playful, less excitable, and more reserved in showing their affection than dogs (Serpell, 1996). The difference in the expectations of cat and dog adopters in the present study may be a reflection of the public's perception of the personality differences between the two species. Cats are seen as fairly independent, whereas dogs are seen as more dependent on the caretaker.

In the current study, the relationship statuses of adopters predicted their expectations regarding the emotional bond with the adopted companion animal. Widowed individuals had significantly higher expectations for the human–companion animal relationship than did divorced and married individuals. Likewise, the expectations of single individuals were significantly higher than the expectations of married and divorced adopters. Marital status and frequency of social interaction can affect the level of loneliness felt by an individual (Dykstra, van Tilburg, & de Jong Gierveld, 2005). Levels of loneliness are higher in widowed individuals than in married individuals (Ben-zur, 2012). In addition, feelings of loneliness increase with age, and older adults who lose their spouses show the greatest increase in loneliness compared with older individuals with living partners and those who have remained single (Dykstra et al., 2005).

Similarly, single individuals living on their own tend to be lonelier than those living with companion animals, those living with other people, and those living with both other people and animals (Zasloff & Kidd, 1994). Therefore, relationship status may influence a caretaker's dependence on a companion animal for company and emotional support. Results of the present study suggest a caretaker's individual situation is important in shaping their expectations for the animal's role in their life. Therefore, exploring an individual's expectations of their adopted animal will be beneficial in identifying and allocating educational resources that are specific to their needs during the adoption process.

The finding of the present study is important in supporting another opportunity for education to help set realistic adopter expectations of the effort required in companion-animal guardianship. These expectations were associated with adopter animal-care knowledge and the type of animal of interest. Individuals with higher knowledge surrounding animal care, health, behavior, training, and cost had higher expectations than did those with lower knowledge scores. Retention of an animal in the home is influenced by expectations for the effort required for companion-animal care (Diesel et al., 2008; Miller et al., 1996). In one study, 13% of cats (10/80) and 21% of dogs (12/57) were relinquished because they were too much work, took up too much time, or cost too much money (Miller et al., 1996). In a study conducted in the United Kingdom, it was estimated that 8.9% of 662 dog returns might have been

prevented by educating caretakers and providing more advice at the time of adoption to ensure realistic expectations of the effort required (Diesel et al., 2008). Providing preadoption counseling would likely have a beneficial effect on the success of companion-animal adoptions and would have a protective effect on animal relinquishments.

In this study, expectations for the amount of effort required in caring for a companion animal were also predicted by the type of animal of interest. Individuals adopting dogs had significantly higher expectations for the effort required in companion-animal guardianship than did individuals adopting cats. This finding is supported by previous research: Cats are perceived to be more flexible and less demanding than dogs, as they need less social interaction and are able to be left alone for longer periods of time (Bernstein, 2007). The perception that cats are more independent and more easily cared for than dogs has also been implied in reasons given for acquiring cats, including their use of a litter box, their suitability to small living spaces, and their ability to endure longer separations from a caretaker without obvious problems (Bernstein, 2007).

The finding of the current study that cat adopters had lower expectations for the effort required in companion-animal guardianship suggests the importance of creating adopter awareness surrounding the responsibilities of cat guardianship. A recent study of companion-animal caregivers in the United States showed that only 60% of cat caretakers provided veterinary care in the previous year compared with 85% of dog caretakers (Volk, Felsted, Thomas, & Siren, 2011). Highlighting the responsibilities of cat guardianship at the time of adoption may be important to creating appropriate expectations for care.

The present study was restricted to questionnaires completed by 234 potential companion-animal caretakers in a single Canadian province, which limited the scope to which the findings of the study may be generalized. In future studies, researchers should consider including a larger sample of potential adopters to further explore their prior expectations. In addition, shelter staff members recruited participants and might have approached specific people about participation. Although this might have introduced a potential selection bias, it could not be avoided due to the large number of study locations in different geographical areas.

Individuals acquiring companion animals from breeders, pet stores, or online sources were not represented. Future research should consider broadening recruitment of individuals to include these sources, as the expectations of individuals may vary across sources. The use of a questionnaire provided self-reported expectations of participants at the time of the study; however, it is unknown how these expectations are related to future behaviors of adopters. Only five participants returned their companion animals within 3 months postadoption, making it impossible to explore associations between adopters' prior expectations and animal return. It is recommended that future studies follow participants for a longer period of time to explore how the expectations of those who keep their companion animals differ from the expectations of those who return or relinquish their companion animals.

## Conclusion

Adopters' expectations for companion-animal guardianship can influence their satisfaction with, and attachment to, their companion animals and the likelihood an animal will be kept. The current study showed that these expectations are associated with an adopter's lifestyle and animal-care knowledge. It is important that animal sources gather information regarding an individual's lifestyle and expectations to provide counseling, education, and resources that are specific to the individual's needs. One program that aims to match caretakers and animals on the basis of adopters' expectations is American Society for the Prevention of Cruelty to Animals (2013a, 2013b) Meet Your Match (MYM). Thus far, comparisons of pre- and post-MYM implementation shelter data suggest that the program may be successful in both increasing adoption rates of adult dogs and decreasing return rates (Nobles, 2006). Providing educational interventions and resources preadoption may make adopters feel more prepared and in control of their adoption experience and may help to manage their expectations, potentially resulting in more successful human–animal relationships.



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