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## Research

# Effects of preadoption counseling on the prevention of separation anxiety in newly adopted shelter dogs

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## ABSTRACT

Separation anxiety is one of the more prevalent and difficult to treat behavior problems in dogs. The associated behaviors can be undesirable to dog owners and damage the human animal bond, leading to relinquishment or return to an animal shelter. Due to the high prevalence of separation related problems in recently adopted shelter dogs, shelter staff hold a critical role in advising and educating owners on how to prevent separation anxiety post-adoption. The aim of this study was to propose a form of that preventive counseling as a means of preventing the development of separation anxiety in recently adopted shelter dogs. The efficacy of preadoption counseling in the education and prevention of separation anxiety problems was tested in a prospective, randomized, parallel-group study. Participants included 133 new owners of dogs 6 months of age and older. At the time of adoption, sixty-six of these owners were randomly selected to receive five minutes of counseling on the prevention of separation anxiety, while the remaining sixty-seven owners served as the controls. A follow-up survey regarding the signs associated with separation anxiety and other potentially related behaviors was conducted one month post adoption. Results showed that 19 owners reported their dogs as having separation anxiety. There was no significant effect of adoption counseling on the prevention of separation anxiety. Owners in both groups were equally as likely to perform most of the recommendations given during counseling. Dogs that were reported to have separation anxiety were significantly more likely than dogs without reported separation anxiety to show nervous or panicked behavior as the owner prepared to leave ( $p=0.0001$ ) and were more likely to be reported as being “needy” ( $p=0.031$ ). Having another dog in the home was not protective against the development of separation anxiety. Owners in the counseling group were more likely than those in the control group to put food inside a toy at the time of leaving the dog home alone ( $p=0.0001$ ), suggesting the counseling recommendations were indeed followed by the owners. Owner compliance supports the idea that counseling is a useful tool for owners. Separation anxiety is a disorder whose course may be difficult to alter in recently adopted shelter dogs using only basic, interventional information. Brief counseling and a toy do not effectively prevent the occurrence of this complex behavioral condition. Further investigation should be done to find more specific, effective prevention tools for owners to use in the home to minimize the development of separation anxiety and shelter should be prepared to provide interventional resources to owners whose dogs develop separation anxiety despite these efforts.

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## Introduction

Separation anxiety, defined here as distress in the absence of an attachment figure, is one of the more prevalent behavior problems

in dogs and treatment can be challenging (Takeuchi et al., 2000b, Bamberger and Houpt, 2006). Commonly reported separation-related problems that lead to a diagnosis of separation anxiety may include destructive behavior, self-injurious behavior, inappropriate urination and defecation, and vocalization associated with distress that occurs only in the owner's absence (Sherman and Mills, 2008). These behaviors can be undesirable to dog owners and may damage the human–animal bond, leading to

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relinquishment or return to an animal shelter (Salman et al., 2000). Recognition of problematic behaviors is critical in recently adopted animals because the human animal bond has had little time to develop and the owners may not yet be committed to the dogs. Even dogs whose owners pursue behavioral therapy may fail to improve sufficiently for the owners' needs and be subsequently euthanized or relinquished (Takeuchi et al., 2000a, Takeuchi et al., 2000b). Several factors have been suggested to predispose certain dogs for the development of separation anxiety, including long periods with the owner without being left alone, periods of kennel housing, family move to a new house or apartment, and loss of a family pet (McGreevy and Masters, 2008; Sherman and Mills, 2008). Adoption from an animal shelter has been suggested as a predisposing factor for the development of separation anxiety in dogs (Serpell, 1995). Whether the separation-related behavior problems lead to relinquishment, or the abandonment/rehoming process put the dog at risk for behavioral pathology in the new home remains unknown. Regardless, considering the risk the development of separation anxiety poses to the adopted dog population, shelter staff may play a critical role in advising and educating owners on how to prevent separation anxiety after adoption.

Most veterinary and behavioral professionals will agree that behavior problems, like many medical problems, are best treated through prevention (Patronek and Dodman, 1999). Cottam et al. (2008) found that written and verbal communication, without the direct interaction of the dog with a clinician, can be an effective method for assessing and managing canine separation anxiety. Providing verbal advice on how to prevent separation anxiety in rehomed dogs has been shown to have a protective effect against the development of separation related problems after adoption (Blackwell et al., 2005). We studied whether preventive counseling in the form of written and verbal communication at the time of pet adoption could help prevent the development of separation anxiety, thereby reducing pet relinquishment and euthanasia. We also obtained information on the prevalence of separation anxiety in shelter dogs after adoption.

## Materials and methods

### Enrollment

Participants were recruited between the months of July and August 2011 from a dog shelter.<sup>a</sup> This county shelter has primary responsibility for control of stray dogs and enforcement of state laws regarding stray dogs and offers open admission for owner-released dogs. The shelter impounded approximately 13,000 dogs in 2011.<sup>b</sup>

Upon adoption, new owners of dogs 6 months of age and older were asked by adoption clerks, using a prewritten Ohio State University–approved script, to participate in a voluntary follow-up study conducted by the Ohio State University College of Veterinary Medicine. Adopters were informed that a follow-up telephone interview, lasting approximately 5 minutes, would be conducted 1 month after adoption. As an incentive for participation, new owners were offered a free gift immediately upon enrollment. Signed consent and contact information were obtained from the adoptive families.

Puppies younger than 6 months of age were excluded from the study. Puppies eliminate more frequently than adults and destructive chewing is one of the first forms of play to develop in

young puppies (Houpt, 2005). Because the presence of destructive chewing and house soiling associated with incomplete house training might confound the diagnosis of separation anxiety, we excluded this population. Given that most shelter dogs have unknown histories, ages reported by owners for the study were based on approximations assigned by shelter staff veterinarians. All male dogs were castrated and all female dogs were ovariohysterectomized before adoption, per shelter rules.

### Group assignment

To avoid imbalance in the number of participants in each group, blocked randomization with a block size of 20 was used (Friedman, 1998). Randomization for group assignment was performed using a computerized random number generator. The consent forms were then arranged in this specific order for researchers to know which group to assign each participant. Enrollment forms were color-coded for assignment into either counseling (treatment) or non-counseling (control) groups.

Participants in the treatment group received a 5-minute pre-adoption counseling session regarding prevention of separation anxiety, a written handout (Appendix) summarizing this counseling, and a food dispensing toy<sup>c</sup> to be used as part of separation anxiety prevention. Participants in the control group received a decorated bandana as a free gift but were not given counseling or the handout. Counseling included a description of the common signs of separation anxiety, including inappropriate elimination in the house, destructive behavior, escaping a room or crate, vocalization, and self-mutilation (overgrooming), all of which would be required to be displayed in the absence of the owner or other attachment figure (Landsberg et al., 2003; Schwartz, 2003; Sherman and Mills, 2008). Owners were given guidelines about behavioral interactions to implement at home with the intent to reduce the development of separation anxiety. The counseling information and recommendations were based on the existing veterinary literature. Information included the common recommendations such as the designation of a safe home alone area that would prevent the dog from having access to dangerous items, 20 minutes of physical exercise before departures as a means of alleviating anxiety and reducing excess energy that may contribute to anxious behaviors, encouraging the dog to learn to feel safe regardless of owner presence, and downplaying departures and arrivals so as not to increase arousal during these times (Schwartz, 2003; Horowitz and Neilson, 2008; McGreevy and Masters, 2008; Sherman and Mills, 2008). Finally, owners were advised to avoid the use of punishment for undesirable behaviors upon their return that occur when the pet is alone. This advice was based on the fact that the use of confrontation or threat to change behavior does not address the underlying anxiety problem, may lead to fear or aggression toward the owner, and does not truly result in punishment of the behavior because the timing is not contingent on the behavior (Mills, 1997; Herron et al., 2009). Food is an unconditioned stimulus that reflexively elicits a positive emotional response when eaten; therefore, owners were also encouraged to provide a food-stuffed toy when leaving their dog home alone. Proper crate-training instructions were provided for those in the treatment group in case they elected to use a crate when leaving the dog home alone. These instructions were given with the intent to prevent a confounding factor of confinement-induced panic interfering with signs of separation anxiety (Overall, 2003).

<sup>a</sup> Franklin County Dog Shelter, 1731 Alum Creek Dr., Columbus, OH 43207.

<sup>b</sup> Franklin County Dog Shelter Impound Totals, 2005, available from the corresponding author upon request.

<sup>c</sup> Kong®.

### Telephone survey

Owners were contacted 1 month after adoption, using a telephone survey instrument<sup>d</sup> and a standardized survey method (Dillman, 1978). The interviewer was blinded to group assignment. If the telephone was not answered, a message regarding the study with a return telephone number was left on an answering machine, if available. The survey was approved by the university's institutional review board.

At the 1-month interview, owners were asked a series of questions regarding methods used to prevent separation anxiety when leaving their dogs home alone, including whether or not they provided 20 minutes of predeparture exercise, if they provided toys when leaving the dog alone and if food was placed inside the toy when given, whether or not the dog was crated, and if there was another dog present when the dog was left home alone. Multiple dog households were asked if the dogs were able to see each other (i.e., both free in house, one free in house and one in crate) when the owner was not at home. Owners were also asked objective questions regarding the individual signs of separation anxiety, including whether or not the dog showed escape attempts, destruction of household items, elimination in the house, or vocalization when home alone (McCrave, 1991; Overall, 1997). Owners were asked if any of the destructive, vocal, or eliminative behaviors occurred only in the absence of the owner, thus classifying these behaviors to be dependent on owner separation or not. The timing and context of these behaviors was pertinent because there are several potential differential diagnoses for each behavior. For example, destructive behavior has been said to be a result of boredom or self-stimulation in a poorly enriched environment (Hunthausen, 1991), but it can also be the result of a phobic or panicky event (e.g., a storm) where destruction is the outlet of the panic or the result of attempts to escape the fearful stimulus (Shull-Selcer and Stagg, 1991; Sherman and Mills, 2008). House soiling may be a result of inadequate housetraining, excitement, marking behavior, or an underlying medical issue, such as urinary tract infection, structural incontinence, epilepsy, or urinary calculi (Landsberg et al., 2003), and typically occurs both in the owner's absence and presence. Vocalization is a common manifestation of separation anxiety, but vocalization also occurs in many other contexts and as a nonspecific sign in many condition such as attention-seeking behavior, territorial aggression, socially facilitated barking, and cognitive dysfunction, all of which would be displayed in the presence as well as the absence of the owner (Landsberg et al., 2003). The survey also documented the average departure time for the owner and number of days per week that the dog was left home alone.

To assess any association between specific departure behaviors and separation anxiety, owners were also asked to describe their dog's typical behavior as the owners were preparing to leave the house. Because other studies have shown a correlation between thunderstorm phobia and separation anxiety (Overall et al., 2001), owners were asked to describe their dog's behavior in the presence of thunderstorms. For both questions, they were read the following options which describe gradually escalating signs of anxiety or stress and asked to choose the description which best fit their pet: (1) indifferent; (2) calm and content; (3) "sad" but quiet; (4) nervous: some trembling, seems mildly distressed; or (5) panicked: pacing, blocking the exit, and/or vocalizing. To assess any association for extreme "neediness," owners were asked to rate their dog's level of neediness. Neediness was defined as: "clingy, follows you around frequently, and appears to be very attached to you." Choices

for evaluation included "very needy," "moderately needy," "slightly needy," or "not needy." Finally, after hearing a description of separation anxiety as "anxious and distressed to the point that he/she is suffering when home alone without a person" (Overall et al., 2001), owners were asked as a yes/no question to say if they thought their dog had separation anxiety. This wording was chosen as an interpretation of the terminology in a manner thought to be understandable to the average dog owner.

If the dog no longer lived in the home, owners were asked if they thought that the dog had separation anxiety during the period they owned the dog, given this description. Owners were also asked if having separation anxiety was the primary reason they returned the dog. Dogs were dropped from the study if they were housed exclusively outdoors or had been diagnosed by their veterinarian with clinical urinary or gastrointestinal disease.

Statistical comparisons were made between treatment and control groups for all subjective and objective measures of the signs of separation anxiety, and to assess associations with methods used by owners and the presence or absence of reported separation anxiety. Fisher's exact test was used for categorical variables when the expected value of a given cell in the comparison was less than 5. Chi-squared tests were used to evaluate associations between owner methods and signs reported.<sup>e</sup> A *P* value of less than 0.05 was considered significant. Standard statistical software was used.<sup>f</sup>

### Results

Enrollment and contact information was obtained from 133 dog owners. Interviews performed at 1 month after adoption were successfully completed with 116 (87.2%) owners. Seventeen owners could not be contacted after 10 phone call attempts (12.8%). Of the interviews completed, 110 (94.8%) dogs remained in the home and 6 (5.2%) dogs were returned to the shelter. Owners reported that 3 (50%) of the dogs were returned because of complaints associated with separation anxiety. To include dogs that were returned for separation anxiety (3) in the main analysis of effect of treatment, data were analyzed for the effect of treatment for 113 dogs (110 dogs retained in the home plus 3 dogs relinquished for separation anxiety). The remaining data were analyzed with respect to the development of separation anxiety using the 110 dogs retained in their home at the time of the survey. The population of dogs used in the analysis included 67 females (29 in treatment group, 38 in control group) and 46 males (26 in treatment group, 20 in the control group), ranging in age from 6 months to 8 years (mean = 2.14 years). With respect to body size, the population of dogs studied was fairly equally distributed ((36 small, 37 medium, 40 large-breed dogs). Seventy-nine percent (89)) of owners took their dog to the vet within the first month after adoption for a check-up. No dogs were eliminated from the study for health reasons.

Nineteen dogs (16.8%) were reported to have separation anxiety. Of these dogs with reported separation anxiety, there was no significant correlation between treatment and control groups with respect to developing or preventing separation anxiety. Males in our study were significantly more likely to have separation anxiety than females (13/46 [28.3%] vs. 6/67 [9.0%]; *P* < 0.0001).

Thirty-six owners had other dogs in the home. Having another dog in the home was not protective against the development of separation anxiety, even for the dogs that had the ability to see the other dog when alone (86%). Seventy-seven owners reported crating their dog, but there was no correlation between crating and separation anxiety. The number of days per week and the length of

<sup>d</sup> Copies of the telephone survey are available from the corresponding author upon request.

<sup>e</sup> Graph Pad Quick Calcs: Chi-Square Calculator, GraphPad Software, Inc, 2013.

<sup>f</sup> Stata Version 9.1, StataCorp, College Station, TX.

time the dogs were left home alone did not differ significantly between dogs with separation anxiety and those without.

Compliance with counseling recommendations was evaluated. There was a significant effect of counseling on whether a food toy was provided. Owners in the treatment group were more likely than those in the control group to provide a toy with food inside ( $P < 0.0001$ ) when leaving the dog home alone. Although fewer dogs provided with a food-stuffed toy were reported to have separation anxiety (5) compared with dogs given a nonfood toy or no toy at all (10), this result was not statistically significant (Chi-squared test  $P = 0.129$ ).

There was no significant effect of counseling on the use of exercise before departures or the use of a crate. In fact, the majority of owners reportedly provided exercise before departures (90%), offered a toy at the time of departure (91%), and used a crate (71%).

Individual signs of separation anxiety such as destructive behavior, house-soiling, barking, escaping, and anxious behaviors during the owners' departure did not differ between the treatment and control groups. At least three owners reported their dog to have a high frequency of objective characteristics of separation anxiety (such as house-soiling and destructive behavior when home alone) but did not declare that their dog had separation anxiety.

Dogs whose owners described them as exhibiting "nervous" or "panicked" behavior during thunderstorms were no more likely to be reported to have separation anxiety than those who were not described as having these behaviors during storms. In contrast, dogs reported to have separation anxiety were significantly more likely to show "nervous" or "panicked" behavior as the owner prepared to leave the house ( $P < 0.0001$ ). Owners who reported their dog as either "very needy" or "moderately needy" were more likely to report that their dog had separation anxiety ( $P = 0.031$ ).

## Discussion

Preadoption counseling did not have a preventive effect on the development of separation anxiety in this population of dogs. Most owners engaged in activities postulated to prevent separation anxiety, regardless of group designation, yet more than 16% (19) of the dogs still showed signs consistent with separation anxiety, and no single preventive measure appeared to make a difference in its appearance. These results differ from the findings of Herron et al. (2007) in which preadoption counseling and an accompanying handout significantly enhanced house-training success after adoption. A variety of factors might explain why this study failed to find a similar preventive effect. First, the counseling and handout provided may have been too basic and/or not specific enough to address the needs of a dog predisposed to separation distress. Separation anxiety is a condition in which dogs show signs of acute and ongoing distress when left or separated from a key person. Dogs may require the use of antianxiety medications to safely cope with being left home alone. The recommendations may have been more difficult for owners to implement than those for house-training and/or owners may not have had the necessary professional support to help them successfully implement and adjust the recommendations to the individual dog. Prevention plans that provide only a few generic pieces of advice have as an inherent weakness an inability to cater types of interventions to the individual animal and his or her needs. Furthermore, it is possible that the dogs that benefitted from house training advice (Herron et al. 2007) were normal dogs responding to a process governed by instructions that allowed their natural needs to be met. In essence, the process of house-training was both innately and operantly rewarding. The dogs showing separation anxiety in this study, however, were abnormal. This behavioral pathology may not be responsive to

simple, written, preventive information in the same way that house-soiling behaviors were. Such advice is not sufficient for truly distressed dogs with behavioral pathologies.

It is also possible that separation anxiety was underreported in this shelter's population of dogs, despite our screening procedures. A previous study by Blackwell et al. (2005) reported a prevalence of separation-related problems after adoption of approximately 30%, substantially higher than our reported 16.8%. Because we do not know the overall rate of separation anxiety in the population from which these dogs came, making sense of comparative data is difficult. Some owners reported the presence of some objective signs of separation anxiety, but did not consider their dogs to have separation anxiety when subjectively asked to evaluate their dogs. Accordingly, owner variation in tolerance and/or interpretation of patterns of behaviors may have skewed our results. Lord et al. (2006) noted that in post-adoption reports, 41.6% of dog owners complained of destructive behaviors, but only 16.1% felt their dog was distressed when home alone. It is possible that were these dogs assessed by a specialist in veterinary behavioral medicine in the context of an in person consultation where the specialists could probe owner responses, that the specialist would have identified informative patterns not identified in this study. The telephone survey defined separation anxiety as a pet's being "anxious and distressed to the point that he/she is suffering when home alone without a person." This choice of wording may have inflicted a sense of guilt upon the owner, which may have discouraged them from characterizing their dog as having separation anxiety.

The recommendation of putting food in the toy was the only recommendation followed significantly more often by owners who received counseling. Although this had no effect on the incidence of separation anxiety, it is a much more specific recommendation than many of the others and the differential response between groups suggests that owners listen to and use preadoption counseling advice in the home. Accordingly, adoption counselors should understand that providing clear advice can change owner behaviors and would be an effective use of their time for common concerns that are likely to arise when the dog is new to the home.

Male dogs were overrepresented in our group of dogs with separation anxiety. Several other studies have also found a bias toward males (Voith and Borchelt 1985; Podberscek et al., 1999; Takeuchi et al., 2000b; McGreevy and Masters, 2007). Males may be larger and so may engage in greater destruction or have louder vocalizations, which may be more likely to be reported as separation anxiety (Takeuchi et al., 2000a).

Dogs described as having separation anxiety were also significantly more likely to be reported as being "needy" and to show "nervous or panicky behavior" as the owner prepared to leave the house. These data suggest that "neediness" and nervous departure behaviors may be signs of some forms of separation anxiety and may be useful information for veterinarians to seek.

Having another dog in the household does not appear to affect whether a dog has separation anxiety (King et al., 2000; Flannigan and Dodman, 2001). Although the loss of another dog in the home may be a predisposing factor to the development of separation anxiety (Sherman and Mills, 2008), there is no evidence to suggest that keeping a dog with other dogs when home alone will protect against separation anxiety, nor that adding a dog to the household will resolve the problem. This is important information for owners because they often ask if adding another dog to the household will help.

Separation anxiety is a complex disorder whose course may be difficult to alter in recently adopted shelter dogs using only standardized, basic, interventional information. Brief counseling and a toy do not effectively prevent the occurrence of this, or likely any other, complex behavioral condition. Relying only on owners to

provide information about their dog's behavior is no substitute for an interactive evaluation by a veterinarian or specialist and an accurate diagnosis. If shelter staff wish to decrease euthanasia and relinquishment of dogs they adopt, they should consider developing ongoing educational and treatment resources for owners to help them identify behavioral signs of extant or developing separation anxiety. Guidance about seeking professional help should be available.<sup>8</sup> If time is a limited resource, supplemental reading and online resources may help. The use of an objective behavioral screening questionnaire focusing on discrete behaviors contribution to risk could be used upon owner surrender of a dog and may identify dogs with patterns of behaviors suggesting a separation anxiety risk, allowing such dogs and their adoptive owners to receive essential education and intervention early. Increasing owner awareness of the potential problem at the time of adoption may allow for faster, appropriate treatment and keep the dog in the home and behaviorally healthy.

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<sup>8</sup> [www.dacvb.org](http://www.dacvb.org); [www.avsonline.org](http://www.avsonline.org); [www.ecvbm.org](http://www.ecvbm.org)

Appendix

Number: \_\_\_\_\_

Name: \_\_\_\_\_ Dog name: \_\_\_\_\_

Phone number: \_\_\_\_\_ Alternate number: \_\_\_\_\_

Email: \_\_\_\_\_

Dates of attempt to contact:	Result:	Completed:
1) _____	_____	_____
2) _____	_____	_____
3) _____	_____	_____
4) _____	_____	_____
5) _____	_____	_____
6) _____	_____	_____
7) _____	_____	_____
8) _____	_____	_____
9) _____	_____	_____
10) _____	_____	_____

“Hello, this is \_\_\_\_\_ calling from the Ohio State University College of Veterinary Medicine on behavior of a study you have enrolled in through the Franklin County Dog Shelter. We are calling for our one month post-adoption interview. Is this a good time for us to complete our brief survey regarding the health and behavior of your dog, \_\_\_\_\_?”

Time Interview began \_\_\_\_\_ Number \_\_\_\_\_

Inclusion/Exclusion information

A. 1) First, does the dog still live with you?

- Yes..... 1
- \*\*No..... 0

\*\*If “No”, please skip to addendum survey

B. Is the dog male or female?

C. Does your dog live inside the house or is he/she kept primarily outdoors?

- Indoors..... 1
- Outdoors..... 0

D. Has your dog been to the vet in the past month?

- Yes..... 1
- No..... 0

\*If no, skip to question 6

E. Did your vet diagnose a medical problem?

- Yes..... 1
- No..... 0

F. If so, what was it? \_\_\_\_\_

- Urinary tract infection..... 1
- Incontinence ..... 2
- Intestinal parasitism..... 3
- Diarrhea of other origin..... 4
- Other ..... 5

1. Where do you leave your dog when he/she is home alone?
 

**Crate (include Q11).....	1
Bedroom or other room with door closed .....	2
Gated in part of the home.....	3
Loose in the house.....	4
Outdoor kennel or yard .....	5
  
2. Which option best describes how often you provide at least 20 minutes of exercise prior to you leaving?
 

Never.....	0
At least 25% of the time.....	1
At least 50% of the time.....	2
At least 75% of the time.....	3
Before every departure .....	4
  
3. a) Do you provide your dog with any type of toy before you leave him/her home alone? If so, what type?
 

No toy.....	0
KONG.....	1
Rawhide or other bone.....	2
Plush toy .....	3
Rope toy .....	4
Other type of food toy.....	5

 b) If yes, do you place food on or in this toy before giving it to your dog?
 

Yes.....	1
No.....	0
  
4. a) Do you have other dogs who live in the house with you and your new dog?
 

Yes.....	1
No.....	0

 b) Are the dogs kept together when home alone?
 

Yes, loose in the house together.....	1
Yes, but in separate crates.....	2
No.....	3
  
5. Approximately how many hours is your dog left home alone during and average departure?
 

Greater than 10 hours.....	1
8-10 hours.....	2
6-8 hours.....	3
4-6 hours.....	4
Less than 4 hours.....	5
  
6. How many days per week on average do you leave your dog home alone?
 

Every day.....	1
4-6 days per week.....	2
2-4 days per week.....	3
Once per week.....	4
Never.....	5
  
7. I am going to ask you a question about the “neediness” of your dog. By needy I mean seems clingy, follows you around frequently, appears to be very attached to you. In regards to how “needy” your dog is, would you say he/she is:
 

Very needy.....	1
Moderately needy.....	2
Slightly needy.....	3
Not needy.....	4

The next set of questions is regarding your dog’s behavior when he or she is left home ALONE without you or any other person.

8. a) How often does your dog destroy furniture, clothing, shoes, crate bedding or other household items when he/she is left home alone?

- Never..... 0
- At least 25% of the time..... 1
- At least 50% of the time..... 2
- At least 75% of the time..... 3
- Every time..... 4

b) At what point did this problem start?

- First time you left your dog alone..... 0
- Within the first week of adoption..... 1
- Within the second week of adoption..... 2
- Within the third week of adoption..... 3
- Within the fourth week of adoption..... 4

c) Does he/she also destroy things at times when you ARE home?

- Yes..... 1
- No..... 0

9. a) How often does your dog urinate or have a bowel movement in the house or crate when he/she is left home alone?

- Never..... 0
- At least 25% of the time..... 1
- At least 50% of the time..... 2
- At least 75% of the time..... 3
- Every time..... 4

b) At what point did this problem start?

- First time you left your dog alone..... 0
- Within the first week of adoption..... 1
- Within the second week of adoption..... 2
- Within the third week of adoption..... 3
- Within the fourth week of adoption..... 4

c) Does he/she also soil in the house at times when you ARE home?

- Yes..... 1
- No..... 0

10. a) How often do you suspect or hear reports that your dog is barking or whining while he/she is left home alone?

- Never..... 0
- At least 25% of the time..... 1
- At least 50% of the time..... 2
- At least 75% of the time..... 3
- Every time..... 4

b) At what point did this problem start?

- First time you left your dog alone..... 0
- Within the first week of adoption..... 1
- Within the second week of adoption..... 2
- Within the third week of adoption..... 3
- Within the fourth week of adoption..... 4

\*\*11. How often does your dog escape his/her crate or cause damage to the crate in attempts to escape when left home alone?

- Never..... 0
- At least 25% of the time..... 1
- At least 50% of the time..... 2
- At least 75% of the time..... 3
- Every time..... 4

- b) At what point did this problem start?
- First time you left your dog alone..... 0  
 Within the first week of adoption..... 1  
 Within the second week of adoption..... 2  
 Within the third week of adoption..... 3  
 Within the fourth week of adoption..... 4

12. Which of the following option best fits your dog's behavior as you prepare to leave the house?

- Indifferent..... 0  
 Calm and content.....1  
 Sad, but quiet..... 2  
 Nervous: some trembling, seems mildly distressed..... 3  
 Panicked: pacing, blocking your exit, and/or vocalizing..... 4

13. What is your dog's response to thunderstorms?

- Indifferent..... 0  
 Calm and content.....1  
 Sad, but quiet..... 2  
 Nervous: some trembling, seems mildly distressed..... 3  
 Panicked: pacing, panting, and/or vocalizing..... 4

14. Do you feel as though your dog has separation anxiety when home alone, meaning is he anxious and distressed to the point that he/she is suffering when home alone without a person?

- Yes..... 1  
 No..... 0

#### Addendum Survey

1a. Do you mind telling me what happened to your dog?

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2a. Did you consider your dog to have separation anxiety during the time that you had your pet?

Yes.....1

No.....0

\*If no, go to next question, if yes, end survey

3a. Was this problem the reason you no longer have this pet? (Only ask this question if owner gave up pet)

Yes.....1

No.....0