Introduction

The aim of the present study is to identify which in-kennel behaviors of shelter dogs influence and predict adoption rates. Previous research evaluating training programs rests on assumptions about what behaviors make dogs more adoptable (e.g. Luescher & Medlock, 2009; Protopopova et al., in prep). The present study provides a more systematic approach to developing effective interventions, by first examining which, if any, shelter dog behaviors correlate with faster adoption.

In addition, the present study evaluates if other variables, such as morphology and the history of the dog, correlate with faster adoptions.

Materials and Methods

Subjects
- 41 dogs at a county Florida animal shelter.

Procedure
- Each dog was videotaped for 1 min daily in their kennels (Wells & Hepper, 2001).
- Observers varied daily to minimize habituation.
- On 2 days/week, one observer interacted with the dog by gently speaking and kneeling down in front of the kennel while another observer filmed the interaction.

Measures
- Each video was coded on an ethogram containing 42 behaviors (Fig. 1).
- Additional variables were recorded for each dog:
  - Breed, size, sex, age, coat length, color, mode of intake, and cleanliness of kennel.
  - The length of stay for each dog was recorded.

Analysis
- Preliminary analyses were done through correlating each behavior with length of stay using Spearman’s correlation (as the distribution of each behavior was not normal).
- Non-behavioral variables were correlated with length of stay through analyses of variance and two-tailed t-tests.
- A significance level of $p < 0.05$ was used for all tests.

Results

Behavioral variables: Significant (Fig. 2 - 5)
- Licking themselves
- Chewing on the cage
- Tilting the head
- Rubbing the body on walls

Non-behavioral variables: Significant
- Sex ($t = 2.02$, df = 1, $P = 0.01$)
- Kennel cleanliness ($p = 0.52$, $P < 0.001$)

Non-significant
- Breed ($F = 2.16$, df = 6, $P = 0.072$)
- Coat length ($t = 2.02$, df = 1, $P = 0.055$)
- Size ($t = 2.02$, df = 38, $P = 0.05$)
- Age ($t = 2.02$, df = 38, $P = 0.05$)
- Color ($F = 2.38$, df = 6, $P = 0.05$)
- Mode of intake ($t = 2.02$, df = 38, $P = 0.05$)

Discussion

Adopters may perceive these behaviors to indicate poor mental or physical health. The finding that dogs in clean kennels are adopted faster may support this hypothesis. Alternatively, these behaviors may be statistically significant due to outlier sensitivity and not actual adopter preference. In addition, current data is not corrected for multiple comparisons, thus inflating the $p$-value. A larger sample size will help clarify these results.

Adopters may not be sensitive to in-kennel behaviors that shelter researchers assume to be important (e.g. jumping up, barking, being at the front of the kennel, gazing, and sitting). The possibility remains that these behaviors become statistically significant with a larger sample size.

Out of the non-behavioral variables, only sex (male longest) and kernel cleanliness correlated with adoption success. A higher sample size will clarify trends and answer the question of which behaviors improve adoption success in shelter dogs.

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References