Evaluation of temporary fostering programs on shelter dog welfare and future behavior in adoptive homes at four US animal shelters
Arizona State University

Project leads: Clive Wynne, Erica Feuerbacher, Lisa Gunter
Project completed: 4/30/18
Grant amount: $160,000

Project Summary: This Arizona State University project investigated the benefits of temporary fostering on shelter dog welfare at four animal shelters in the United States. Dog activity and urinary cortisol (a hormonal indicator of stress) were used to assess dog behavior and stress. The study demonstrated a reduction in stress (cortisol) when dogs stayed in foster homes. When dogs returned to the shelter, urinary cortisol returned to baseline levels. Shelter dogs with the highest baseline stress levels showed the most dramatic reductions in cortisol while in foster care.

The objectives of the project were:

• To find out if brief stays of two nights in a foster home would result in lower urinary cortisol (creatinine (C/C) ratios) for dogs awaiting adoption as compared to ratios collected before or after their stays.
• To collect behavioral information provided by the shelter staff, foster caregivers, and new owners after adoption in order to learn which behaviors and situations were most predictive of the dog’s behavior in its new home six months after adoption. (This objective is not yet complete, pending the submission of surveys from adopters)

Methods:
Four shelters participated in the study. Urine was collected before, during, and after sleepovers. A shortened version of the CBARQ (Canine Behavioral Assessment and Research Questionnaire) was used to collect behavioral information about the dog prior to fostering, upon return from fostering and once the dog was adopted. New owners completed the questionnaire one to two days after adoption and again after six months in the home. PetPace collars collected dogs’ temperature, pulse, respiration, activity, and positions before, during, and after sleepover.

Results:
• The hypothesis that temporary fostering of shelter dogs would reduce stress was supported, although the magnitude of the effect varied across shelters. Findings indicate that while significant physiological benefits were observed with dogs at each
shelter, the shelter with the highest overall in-shelter cortisol values (Arizona Humane Society) benefited the greatest from the intervention.

- Cortisol values at the end of study enrollment were not significantly lower (or higher) than initial in-shelter values, suggesting that the benefits of sleepovers were short-lived.
- Dogs’ longest period of rest happened while their cortisol response was lowest. The longest periods of rest were observed during the sleepovers, and rest bouts upon return to the shelter were longer than those before the sleepover.

**Conclusions**

The study results demonstrate that temporary foster homes reduce stress in shelter dogs. Shelter dogs’ urinary cortisol concentrations can be systematically decreased when dogs are placed into temporary foster homes. This reduction in stress, observed at all participating shelters, varied in its magnitude and was lost once dogs returned to the shelter, although longer bouts of restful behavior post-sleepover did continue.

**Tags:** Short-Term Foster Care, Foster Field Trips, Shelter Dogs, Sleepover, Fostering  
**Audience:** Shelter/rescue, Executive leadership, veterinary team