Firework fears in dogs – associations with health, demographics, and owner training effort

Stefanie Riemer*, Sarah Gähwiler

Division of Animal Welfare, Vetsuisse Faculty, University of Bern, Länggassstrasse 120, 3012 Bern, CH *Presenting author: stefanie.riemer@vetsuisse.unibe.ch



INTRODUCTION

 $u^{\scriptscriptstyle b}$

INIVERSITÄT ERN

- Noise sensitivities represent a prevalent welfare problem in dogs ¹.
- We aimed to investigate prevalence and progression of firework fears in dogs and relationships with demographics and health issues.
- Further we explored the efficacy of different interventions to manage, prevent or treat firework fears in dogs.

METHODS

- An online questionnaire was distributed to dog owners, stressing that both dogs with and without firework fears were of interest (N=1225).
- Questions included information on severity and progression (improvement/ deterioration) of firework fears in dogs, demographics, health, and owners' management and training to prevent/ improve firework fears.
- General linear models were calculated to assess the effect of these variables on the severity and progression of firework fears.
- Owners were also asked whether they perceived interventions as effective or not effective.

DEMOGRAPHIC RISK FACTORS

- A fear of fireworks was reported for 50.6% of dogs.
- Neutered dogs of both sexes (p=0.001), older dogs (p<0.001), and dogs with health problems (p=0.028) were significantly more affected by firework fears.



FACTORS AFFECTING PROGRESSION OF FIREWORK FEARS

Specific training for firework fears (p<0.001) and feeding or playing with dogs during fireworks (p=0.01) were the only variables with significant positive effects on the development of firework fears (i.e. lower progression scores).

PERCEIVED EFFICACY OF TRAINING METHODS



- High efficacy was reported for counter-conditioning (70.9%) and relaxation training (68.9%).
- Noise CDs were less effective (54.4%).



PERCEIVED EFFICACY OF PRODUCTS

 Below are the proportion of owners (having tried these interventions) who considered them effective/ not effective (number of respondents in brackets)



- The reported effectiveness of pheromone products, homeopathy and other alternative products was around 30%
- This is not more than could be expected due to a placebo effect (c.f. ²).
- The thundershirt was considered effective by 44.3%.
- The highest efficacy in the treatment of firework fears was reported for prescription medication (68.9%).

CONCLUSIONS

- Training is highly effective in reducing firework fears in dogs.
- The highest success rates (around 70%) in alleviating firework fears were reported for medication, counterconditioning, and relaxation training.
- Reasons for the lower success of CDs should be investigated.

¹Blackwell et al. (2013). Fear responses to noises in domestic dogs: Prevalence, risk factors and co-occurrence with other fear related behaviour. Appl Anim Beh Sci, 145(1), 15-25. ² Conzemius, M. G., & Evans, R. B. (2012). Caregiver placebo effect for dogs with lameness from osteoarthritis. JAVMA, 241(10), 1314-1319.