The Neutered Status of UK Cats: Risk factors and Prevalence

Murray, J.K., Roberts, M.*, Whitmarsh, A. and Gruffydd-Jones, T.J.
Department of Veterinary Clinical Sciences, University of Bristol, Langford, Bristol, UK
* Cats Protection, National Cat Centre, Chelwood Gate, Haywards Heath, Sussex, UK

SUMMARY

91.5% of all cats aged >6 months were neutered, although only 65.9% of cats aged 6-12 months were neutered.

Cats that lived outdoors, had not been vaccinated within the last year, were not currently registered with a veterinary practice and that were aged <9 months were the most likely to be sexually entire.

Decreasing the age at which cats are neutered may help to reduce the number of unwanted kittens in the UK.

INTRODUCTION

The size of the UK domestic cat population is reported to have risen from approximately 6.2 million cats in 1986 (Thursfield, 1989) to 9.6 million cats in 2004 (PFMA, 2008).

22% of households owned cats in a recent study conducted in north-west England (Westgarth et al., 2007).

Despite the popularity of cats as pets, cat rescue charities usually hold waiting lists as they are unable to accommodate the large number of unwanted cats. There is therefore a need to increase the proportion of cats that are neutered prior to sexual maturity in an effort to reduce the size of the cat population.

It is currently recommended that domestic cats are neutered at four months of age (BSAVA, 2008, Feline Advisory Bureau, 2008); however, it is hypothesised that few cats are neutered at this age.

AIMS OF THE STUDY

• To estimate the prevalence of neutered and sexually entire cats aged >6 months owned by a random sample of UK households

• To identify variables that increased or decreased the likelihood of a cat being sexually entire

MATERIALS AND METHODS

A cross-sectional study design was used to obtain data relating to cats owned by UK households.

Telephone numbers were supplied by a commercial company (Tracesmart) for a random sample of households listed on the UK electoral roll. Households registered with the Telephone Preferential Service or as "ex-directory" were excluded from the sample.

The study was described as a study of UK pets and respondents were informed that participation was required from non-pet owners as well as pet owners in order to reduce selection bias. Descriptive data relating to the number of dogs and the number age, gender and neutered status of all cats owned by households were obtained. Additional data relating to potential risk factors (e.g. indoor/outdoor access, breed) for the outcome under investigation (neutered status) were collected from one randomly selected cat (aged four months or greater) in each cat-owning household.

Data were collected between July and December 2007 using a telephone questionnaire administered by six trained interviewers.
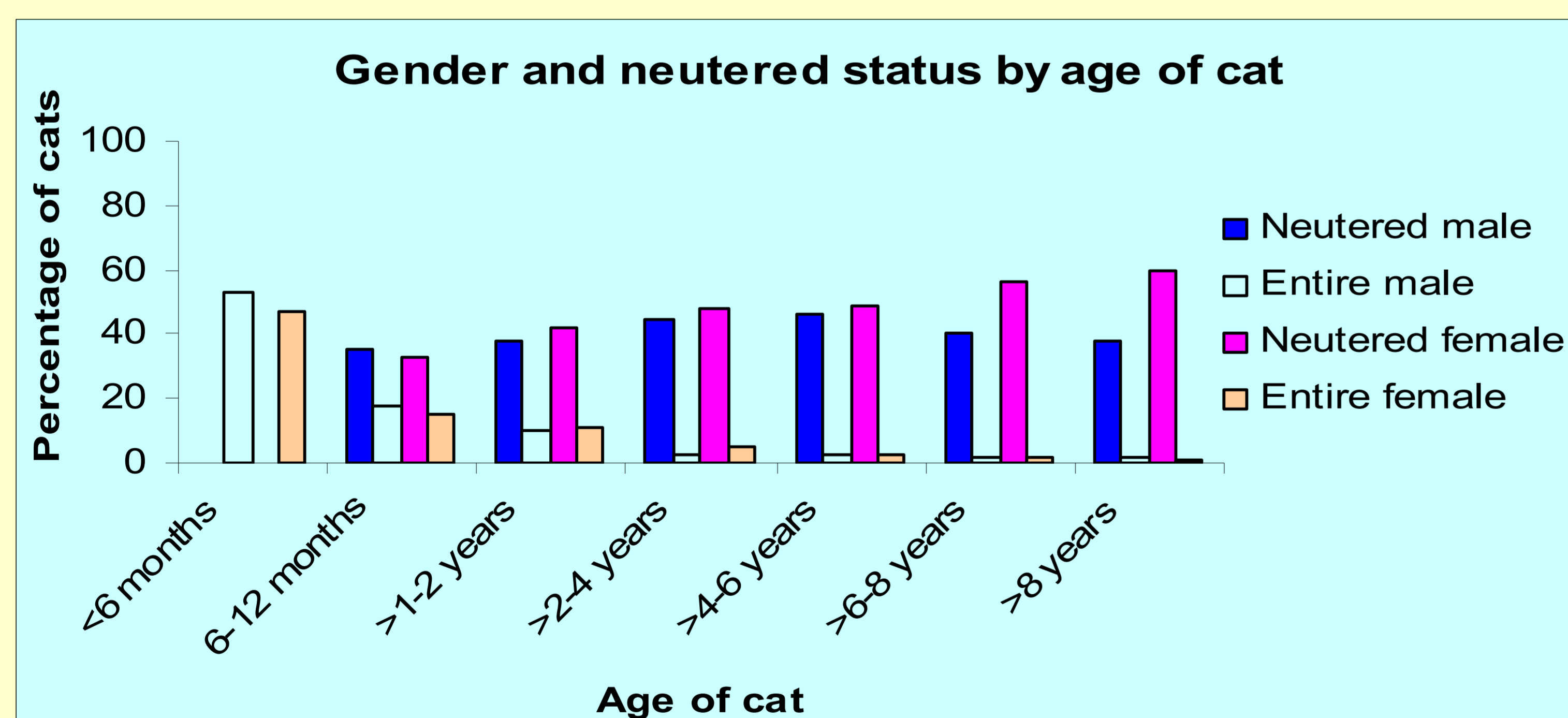
Univariable and multivariable logistic regression models were used for data analysis of risk factors for neutered status based on 66 cases (sexually entire cats) and 676 controls (neutered cats).

RESULTS: Prevalence of neutered cats

• 32% of contacted households completed questionnaires (2906/8961).
• 26% of households owned cats
  30% of households owned dogs.
• 91.5% (1068/1167) of cats aged >6 months were neutered (95% CI 89.9%-93.1%)

Figure 1. Gender and neutered status by age of cat for 1224 cats from randomly selected UK households
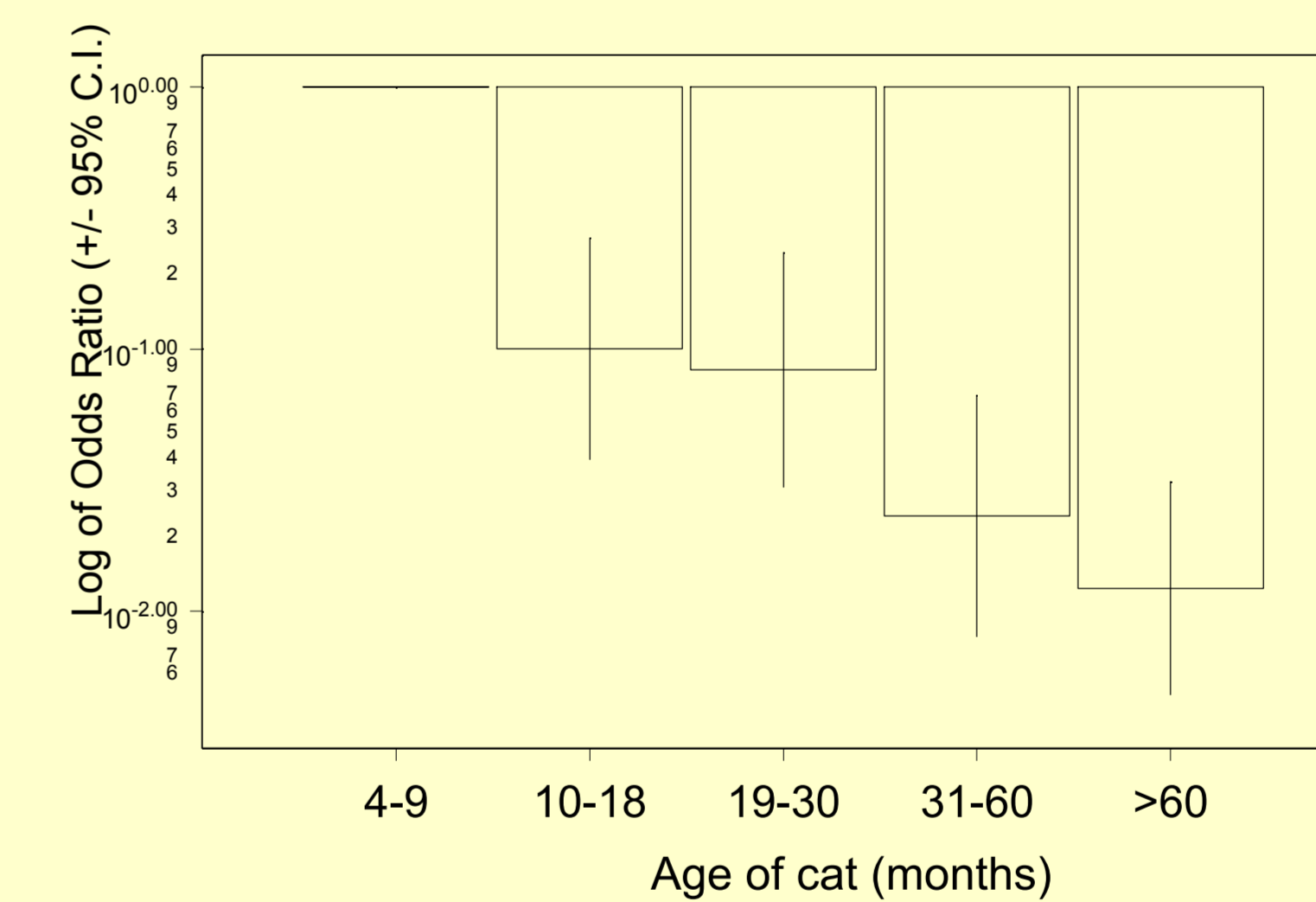

Gender and neutered status by age of cat

RESULTS: Multivariable analysis of risk factors for neutered status

The following variables were significant in the multivariable model, (outcome = sexually entire cat):

• **Age (months) of cat**: <9 months (piecewise linear) (OR=0.30, 95%CI 0.19-0.48, P<0.001)
                                        >9 months (piecewise linear) (OR=0.97, 95%CI 0.96-0.99, P<0.001)

A piecewise linear form of the variable age of the cat (months) was the best fitting form of the variable when compared with the categorical, linear and quadratic forms. The relationship between the categorical form of the variable and the neutered status of the cat is shown in Figure 2.

Figure 2. Univariable relationship between the categorical form of the variable of age of the cat (months) and the log odds (+/- 95% CI) of the risk of the cat being sexually entire

- **Not vaccinated within the last 52 weeks** (OR=6.73, 95%CI 2.17-20.83, P<0.001)
- **Not registered with a vet** (OR=7.92, 95%CI 2.99-20.99, P<0.001)

- **"Outdoor" cat** (with no indoor access) (OR=10.57, 95%CI 2.36-47.26, P=0.002)
- **Respondent does not believe that neutering is good method of controlling the number of unwanted cats** (OR=371, 95% CI 19-7394, P<0.001)

CONCLUSIONS

Increasing the proportion of cats which are neutered before sexual maturity (approx. 6 months of age) is likely to be an effective method of reducing the number of unwanted kittens as only 65.9% of cats aged 6-12 months were neutered.

Cats aged <9 months of age were most likely to be entire when compared to cats of other ages and the likelihood of remaining entire decreased with increasing age thereafter.

Cats that lived outdoors, were not currently registered with a vet and that had not been vaccinated within the last year were also more likely to be entire than cats that had access to a full or part indoor lifestyle, were registered and had been vaccinated within the last year.

Respondents who believed that neutering was not a good method of controlling the number of unwanted cats were less likely to own neutered cats than those who agreed with the statement.

Knowledge of these risk factors can inform intervention strategies aimed at increasing the number of cats that are neutered in an effort to reduce the size of the unwanted cat population.

REFERENCES

* BSAVA (2008) www.bsava.com   * Feline Advisory Bureau (2008) http://www.fabcats.org/cat_group/policy_statements/neut.html   * PFMA (2008) http://www.pfma.org.uk/overall/pet-population-figures-2.htm

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