OVERWEIGHT/OBESE CATS ARE MORE LIKELY TO EAT DRY DIETS AND HAVE AN INDOOR LIFESTYLE

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BACKGROUND:

- The prevalence of UK pet cats that are overweight or obese has increased to an estimated 39% (Courcier et al. 2010).
- Being overweight/obese predisposes companion animals to a multitude of health problems and diseases, and may ultimately decrease lifespan.
- No previous study has used prospective data to identify risk factors for feline obesity in order to rule out reverse causality.

AIMS AND METHODOLOGY:

- The 'Bristol Cats' study (www.bristol.ac.uk/vetscience/cats) uses prospectively collected data to identify risk factors for problems such as obesity.
- Data are collected via owner-completed questionnaires when cats reach specific ages.
- Owner-reported body condition score (www.pfma.org.uk/cat-size-o-meter) of cats at 12.5-13 months of age were dichotomised to overweight/obese (BCS 4-5) and not overweight (BCS 1-3) and used as the outcome variable.
- Data relating to cat breed, neuter status, outdoor access (indoor only/restricted outdoor access (e.g. on lead or in outdoor run), unrestricted outdoor access (i.e. not restricted to lead or outdoor run)), type of diet fed and frequency of treats fed were extracted from questionnaires 1 (2-4 month old cats), 2 (6.5-7 month old cats) and 3 (12.5-13 month old cats) completed between March 2010 and August 2013 to be analysed as potential risk factors.
- Variables with $p<0.1$ from univariable logistic regression models were included in the multivariable logistic regression models built using stepwise forward-selection. In order to take into account potential hierarchical clustering of data, logistic regression models were extended to two-level random intercept models. Wald tests were used to compare models.
- Analyses were conducted using MLwiN version 2.27.

OVERWEIGHT/OBESE CATS WERE MORE LIKELY TO HAVE **NO OR RESTRICTED OUTDOOR ACCESS** AND/OR BE FED **DRY FOOD** AS THE ONLY OR MAJOR (>50%) FOOD TYPE IN THEIR DIET

CATS NOT OVERWEIGHT WERE MORE LIKELY TO HAVE **UNRESTRICTED OUTDOOR ACCESS** AND/OR BE FED **WET FOOD** AS THE ONLY OR MAJOR (>50%) FOOD TYPE IN THEIR DIET, OR **50:50 DRY AND WET FOOD**

OR

RESULTS:

- 836 cats were included in the analysis.
- Clustering of cats in households had no impact on the analysis.
- Cats with restricted or no outdoor access at 12.5-13 months of age (questionnaire 3 completion) were more likely to be overweight/obese at 12.5-13 months of age: odds ratio 2.1, 95% confidence interval 1.6 -2.6.
- Cats fed a dry food diet at 6.5-7 months (questionnaire 2 completion) and 12.5-13 months of age were more likely to be overweight/obese at 12.5-13 months of age: odds ratio 2.0, 95% confidence interval 1.5 -2.5.

CONCLUSIONS:

- Cats which were fed a dry diet and/or had restricted or no outdoor access were **twice as likely** to become overweight/obese.
- Owners who choose to feed dry food and/or restrict their cat's outdoor access should pay careful attention to the amount of food they feed, provide increased opportunities for exercise for example through play, and monitor the body condition score of their cat closely, to prevent obesity from developing.

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