Capturing the complexity of first opinion small animal consultations using direct observation

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Context
Veterinary practices are a valuable source of clinically relevant research data. Direct observation of small animal consultations may allow detailed data to be captured from these consultations. These data will shed light on the complexities of first opinion consultations and the findings are likely to have applications for future research, veterinary curricula and practice management. The aim of this study was to develop a tool to record detailed data from consultations. A second aim was to investigate the complexity of the consultation by examining the number of problems discussed per patient.

Main conclusion
The data collection tool developed is able to effectively capture the complexities of the consultation. During consultations, multiple problems were often discussed for a single patient, suggesting comorbidity may be common. The results suggest preventive medicine consultations and consultations involving dogs, cats or older patients may be particularly complex. Future practice-based research should consider how much of this complexity needs to be captured, and use appropriate methods accordingly.

Approach
Eight sentinel practices were recruited to the study. A data collection tool was designed to allow data to be gathered during direct observation of small animal consultations. Following a pretest and a pilot study, data were collected over two weeks in each practice, giving a total of 16 weeks of data collection. Data collected included consultation type, patient signalment and number of problems discussed. Problems were defined as ‘any two-way discussion between owner/carer and vet regarding any aspect of the patient’s health and wellbeing’ to include issues relating to preventive medicine as well as specific health problems. Definitions and dictionaries of terms were developed to allow consistent coding and categorisation of the data collected.

Results
Data were gathered on 1901 patients presented in 1720 consultations, with most consultations (91.4 per cent) involving one patient only. Revisits were the most common type of consultation (38.2 per cent), followed by preventive medicine consultations (34.7 per cent) and first consultations (25.5 per cent). Dogs were the most frequently presented species (65.0 per cent) followed by cats (27.6 per cent) and rabbits (4.7 per cent). The majority of dogs were purebred (79.1 per cent), with the labrador retriever being the most common breed. Domestic shorthair was the most common cat breed (74.9 per cent) and lop was the most common rabbit breed (55.8 per cent). Cats presented tended to be older and more likely to be neutered than dogs, which in turn were older and more likely to be neutered than rabbits.

More than one problem was discussed for the majority of patients (65.4 per cent), with up to eight problems discussed for some patients. More problems were discussed in preventive medicine consultations than in first consultations or revisits. Fewer problems were discussed for rabbits than for dogs or cats. There was only a weak positive correlation between age and total number of problems discussed. However, when data were analysed by type of problem, age was positively correlated with the number of specific health problems discussed and negatively correlated with the number of preventive medicine problems discussed.

Interpretation
The data collection tool worked well during direct observation of consultations, with a low opt-out rate and a wealth of data collected. The frequency with which more than one problem was discussed suggests that comorbidity may be very common in veterinary patients. Many studies of veterinary interventions exclude patients with comorbidities, so patients recruited to these intervention studies may not be representative of those typically presented in first opinion practice. The study used a convenience sample of practices and it is currently unclear how representative this network is of UK first opinion practice.

Significance of findings
The method developed is likely to be useful in future practice-based research, particularly for topics such as veterinary decision-making where the complexities of the consultation will be of interest. It could also be used as a comparator in the validation of other methods harnessing data from first opinion practice. The findings could be used to direct veterinary education, particularly when teaching consulting skills. Veterinary practices may find the results useful when deciding on how to schedule appointments and which designated clinics to offer.
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