

UDEN VCCECC

# Canine behaviour problems: discussions between veterinarians and dog owners during annual booster consultations

# A. L. Roshier, E. A. McBride

The veterinary profession recently acknowledged its responsibility to provide behaviour support, following criticism for focussing on the physiological aspects of welfare and overlooking the psychological. To further understand the practising of behavioural medicine, a 'fly-on-the-wall' approach was used to investigate welfare discussions during dog booster vaccinations. Seventeen consultations involving six veterinarians in two UK small-animal practices were videoed. Qualitative methods were used to analyse themes discussed and questionnaires completed to obtain participant information and perceptions. Five main topics of discussion were identified: navigation, medical, husbandry, behaviour and cost. Veterinarians led the discussion of all topics except behaviour which was instigated approximately equally by veterinarian and client. All clients reported one or more behaviours that were a concern to them, totalling 58 across the sample. Disconcertingly, only 10 were discussed during consultations and none fully explored nor managed beyond the consultation. Behaviour discussion varies between veterinarians: this may reflect their experience, confidence or clients' requests. Owners access welfare information from a variety of sources, not always from veterinarians. Where sources are not knowledgeable, both human and animal welfare can be seriously compromised. Veterinarians need to ensure that clients are enabled to discuss behaviour issues and are provided with appropriate support, be that in-house or via referral.

# **Introduction**

Under the Animal Welfare Act 2006 (Section 9) (HMSO 2006) owners are legally obliged to provide for the welfare of animals in their care. Animal welfare consists of three distinct, but overlapping domains: (i) health and physiological functioning (body); (ii) affective state (mind) and (iii) social functioning, including normal development, behaviour and temperament (nature) (Duncan and Fraser 1997). To help owners fulfil their obligation, Codes of Practice (DEFRA 2009) are available, which advise owners to seek additional support from veterinarians and other relevant professionals. With their multidisciplinary training and direct contact with owners, it would seem that veterinarians are in a prime position to advise on the three domains of welfare. However, the provision of behaviour support has been questioned (McMillan and Rollin 2001) and veterinary curricula criticised as being deficient in training of behaviour and ethology (Christiansen and Forkman 2007, Wickens 2007), an omission also acknowledged by the profession (Anon 2007). More recently, the profession has

Veterinary Record (2012)

**A. L. Roshier**, BSc(Hons), PhD, PGCHE, PgCert, MA, MSc, FHEA, School of Veterinary Medicine and Science, University of Nottingham, Sutton Bonington, Loughborough LE12 5RD, UK

**E. A. McBride**, BSc(Hons), PhD, Cert. Cons, FRSA, School of Psychology, University of

# doi: 10.1136/vr.101125

Southampton, Highfield, Southampton SO17 1BG, UK;

E-mail for correspondence: mandy.roshier@nottingham.ac.uk

Provenance: Not commissioned; externally peer reviewed Accepted October 3, 2012 highlighted that behaviour is an area veterinarians should support (FVE and AVMA 2011) either directly, or indirectly by referral.

The focus of the veterinary consultation can be broadly categorised into three groups:

- 1. Presentation of an animal with a health problem
- 2. An animal returning for follow-up treatment
- 3. Routine appointments (eg, vaccination, health check), also referred to as wellness appointments.

The type of consultation shapes the discussions that take place. Shaw and others (2008) investigated communication between veterinarian, client and patient during wellness appointments, and compared this with appointments involving a health problem. Findings revealed that 90 per cent of conversation in a health problem consultation is the veterinarian gathering biomedical information, whereas in wellness appointments, 50 per cent of the conversation is related to information gathering, and 27 per cent on client education. This suggests that wellness appointments present a situation where conversations relevant to this study are most likely to occur. Clients typically visit veterinarians when their animal is unwell; therefore, for animals in good health, the annual booster vaccination may provide the only opportunity to discuss welfare issues.

Welfare support involves detection of a problem, anamnesis, assessment and provision of appropriate means of resolution. Initial detection of a problem, particularly a behaviour issue, involves appropriate communication with the owner. This requires both a knowledge base from which to form pertinent questions and listening skills. As stated above, there are concerns regarding behaviour knowledge of veterinarians, and research also indicates lack of communication skills (Dysart and others 2011), which would be

exacerbated by the short length of most consultations (Roshier and McBride 2012).

It is unclear what welfare support owners seek from veterinarians, particularly regarding behaviour advice. To explore this, both parties could be asked directly through questionnaires or interviews. However, this information may be limited, as what people think they do, or what they would like others to think they do, does not always represent the reality. To capture reality, consultations can be observed directly, thus providing a primary source of information. Following observations, participants could be further questioned. This multifaceted approach enables collection of rich data and a deeper understanding of participants and events (Warne and McAndrew 2009). Where raw data is gathered and themes emerge, this is described as a general inductive research approach (Thomas 2006), and is deemed appropriate for the study of complex social settings and in exploratory early stages of research.

Observations can be made directly or through video recordings. The use of video cameras to record doctor-patient consultations has been shown to neither influence doctors' behaviour (Pringle and Stewart-Evans 1990), nor affect how patients feel (Arborelius and Timpka 1990, Latvala and others 2000), and most patients were happy to give informed consent to be recorded (Martin and Martin 1984). In veterinary medicine, it has been used to evaluate veterinarian-client interactions (Shaw and others 2008, Everitt 2011) and to encourage reflective practice (Manning 2008).

This study sought to explore discussions and focussed analysis on verbal communication. Boyatzis (1998) recommends full analysis which involves producing transcripts of complete conversations and identifying themes. This rigorous approach minimises personal perspectives influencing the reporting, which can occur when researchers provide general reconstructions of what was said (Seale 1999).

Owners have a legal responsibility to ensure their dog's welfare. The veterinarian is a recommended source for information relating to animal welfare according to Codes of Practice. This study explored the welfare support provided by veterinarians, that is, how they ensured owners were able to fully comply with their legal obligation. This involved both directly observing discussions during a dog's annual booster vaccination and questionnaires.

#### Materials and methods

The study was approved by the University of Southampton Ethics Committee and Research Governance Office.

# **Participants**

Study invitations were sent to eight small-animal practices in the first author's (ALR) locality, within 40 miles of Nottingham, UK; and an opportunistic sample of two were recruited. Study posters were displayed in the waiting room to recruit clients. Reception identified clients meeting the study criteria and, on arrival for their appointment, introduced them to the author who provided further details. Six veterinarians participated (three male and three female, age range: 23–55 years). Twenty-one clients met selection criteria and were invited to participate in the study; four declined to participate. Seventeen consultations were analysed in total and included 17 owners (7 male and 10 female, age range: 18–85 years) and 17 dogs (10 male and 7 female, age range: 13–39 months, 14 pure breeds, 3 crossbreeds, 12 neutered).

The selection criteria were:

- Dogs: not attending for medical reasons but for their annual booster vaccination. Aged 12–42 months – around the age when most problem behaviours are reported (Lund and others 1996).
- *Clients*: the dog's owner and over 18 years (unless accompanied by a guardian).

# **Data collection**

Informed consent was obtained from all participants. Conversational data of the consultation were collected using a compact and discretely located digital camcorder (Panasonic HDC-TM60). Immediately after the consultation, owners were asked to complete a paper questionnaire, to collect data regarding demographics and their views of the consultation; this took approximately 10 minutes to complete. The questionnaires are published in Roshier and McBride (2012).

#### Owner questionnaire

The owner questionnaire was divided into three sections. It comprised closed questions, Likert scales, free text opportunities and Visual Analogue Scales (VAS). The latter were a 10 cm horizontal line with descriptors written at the extremities; respondents marked a cross on the line to indicate their rating, this was measured with a ruler and converted into a percentage (1 cm=10 per cent).

The first section sought demographic information about the owner and anyone accompanying them into the consultation. Owners rated their experience with dogs on a VAS.

The second section collected data about the dog's demographics, the owner's perception of their dog's behaviour in the veterinary clinic and in general, using 5-point Likert scales to assess the frequency their dog performed 18 behaviours, and a 3-point scale to rate how much of a problem it was to the owner. The behaviours chosen are often considered problematic (Overall 1997).

The third section asked owners how long they had been visiting the practice, and their acquaintance with the veterinarian. Owners were asked to evaluate their experience of the consultation using the validated 15-item Likert scale client satisfaction questionnaire (CSQ) developed by Coe and others (2010), and to identify any issues not discussed, and why. The final question asked what resources clients normally access for information on eight different areas relevant to their dog's welfare (eg, breeding, diet, behaviour problems).

## **Data analyses**

The small sample size precluded application of inferential statistics and, therefore, descriptive statistics and qualitative methods were used.

Questionnaire data – responses were entered in a standard spread-sheet (Microsoft Office Excel 2007). Data were entered twice to identify data entry errors. Responses were analysed using descriptive statistics and qualitative methods (for open-ended questions). Questionnaire responses were considered in respect to consultation observations.

Observation data – conversations were transcribed in a text document (Microsoft Office Word 2007) for coding and thematic analysis (Boyatzis 1998). Thematic analysis was guided by the following research questions:

- What welfare issues are discussed?
- Who instigates these welfare conversations?

Following coding, the participant who instigated discussion of the topic was noted. Thematic and instigation data were analysed using descriptive statistics.

# Results

# **Topics identified**

The mean duration of the 17 consultation appointments was nine minutes (range: 5–15 minutes). Thematic analysis of transcripts identified 53 subthemes which were categorised into five main themes representing topics of discussion: (i) navigation, (ii) medical, (iii) husbandry, (iv) behaviour and (v) cost (Table 1).

# **Instigation of topic discussion**

Of the five topics identified, four were discussed in all 17 consultations (navigation, medical, husbandry, behaviour); cost was mentioned least, featuring in five consultations. Contributions made by veterinarians or clients to the discussion topics were considered by comparing the total number of statements instigated by each group (Fig 1). Veterinarians led navigation of the consultation as indicated by a greater number of statement instigations (n=55/61) than clients (n=6/61), as were discussions of cost (vets n=7/8, clients n=1/8). The number of statements instigated relating to medical (vets n=155/195, clients 40/195) and husbandry themes (vets n=117/163, clients n=46/163) indicated that veterinarians led the discussion of these topics, with contributions from clients. Instigation of behaviour discussion was shared between veterinarians and clients (vets n=55/122, clients n=67/122), and was the least discussed welfare topic.

# Behaviour discussion during consultations

Clients' evaluation of the frequency their dog performed 18 behaviours (see Box), and the extent to which this was a problem to the client are

TABLE 1: Thematic analysis		
٨	Nain theme	Subtheme
Ν	lavigation	Any concerns? Greeting
٨	Medical	Goodbye Anal glands Chest
		Condition (eg, dog looks in good condition) Ears
		Lumps and bumps
		Teeth Weight
		Skin/coat Gastrointestinal
		Musculoskeletal
		Medication Season
		Nose
		Diagnostics Lifespan/ageing
		Reproduction
		Ectoparasites Eyes
		Coughs and sneezes
		Supplements Lymph node
		Nails
		Weight clinic Medical condition
Н	Iusbandry	Breeding
		Diet Exercise
		Neutering Preventative medication
		Vaccination
		Breed-specific care Teeth
		Microchip
R	Sehaviour	Nail trimming Food
	ciidviodi	Sexual
		Handling Temperament
		Training
		Tricks Problems (authors' interpretation based on list of behaviours
		in Box)
		Interaction Time budget
		Limits examination
		Lethargic Nurture (predisposing factors): history, long-term influences
		throughout life Nature (predisposing factors): genetic/breed/gender character-
		istics
C	ost	Costs Practice club
		Insurance

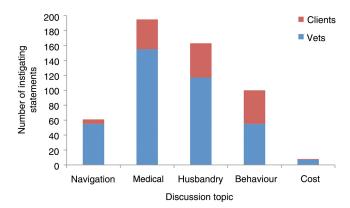


FIG 1: Topic instigation by participating groups

BOX: List of behaviours that owners assessed for frequency performed and how problematic they are to the owner.

#### Does your dog...

- Do what you tell it to?
- Pull on the lead?
- Jump up at people?
- Toilet in the house?
- Get on with your other pets?
- Show aggression towards people?
- Show aggression towards other animals?
- Show signs of fear of fireworks?
- Show signs of fear of other things?
- Ask for food while you are eating?
- Chew/eat your possessions?
- Excessively lick or chew themselves?
- Run off/roam/escape?
- Bark or howl when left alone?
- Bark at passers-by?
- Guard their food or toys?
- Travel ok in the car?
- Show a preference towards a particular family member?
- Other (please state). Reponses were: dog gets jealous, has flatulence, barks at birds

summarised and compared with consultation discussions (Table 2). All clients identified that they had one or more behaviour concerns, totalling 58. Of these 58 behaviour concerns, 10 were mentioned during the consultation. Of these 58 concerns, 48 were considered by the owner to be 'a bit of a problem'. Of these 48, nine were mentioned in the consultation by eight of the 17 clients. Five clients (C2, C4, C15, C16, C17) indicated at least one behaviour they considered to be 'a big problem'; this totalled 10 problems. These 'big problems' included: (i) pull on the lead (C17), (ii) jump up at people (C2, C15), (iii) show signs of fear of fireworks (C2, C4), (iv) chew/eat your possessions (C4), (v) run off/roam/escape (C4), (vi) bark or howl when left alone (C16), (vii) bark at passers-by (C16), (viii) guard their food/toys (C4). Only one client (C15) mentioned the 'big problem' to their veterinarian; this was a problem of jumping up at people, but this was not fully explored. Two clients (C9, C10) mentioned a behaviour they had indicated their dog rarely performed and was not a problem to them.

In two consultations (C11 and C16), dogs were muzzled in order to carry out the physical examination and vaccination. In both cases, it was the veterinarian's decision to muzzle; (C16) because the dog snapped at the veterinarian (although at the end of the consultation it transpired that the owners had a muzzle that the dog should have been wearing), (C11) because it was on the dog's record that a muzzle would be required.

In total, 58 problems were identified by owners. Only 10 were mentioned in the consultations (Table 2). No recommendations for appropriate sources of support were made.

## Clients' evaluation of the consultation

Overall satisfaction ratings were calculated as the modal response to the CSQ (Coe and others 2010). The satisfaction ratings were similar across all clients irrespective of their acquaintance with the veterinarian or whether behaviour problems were discussed. Only two clients rated satisfaction below excellent (C6-very good, C7-good). All clients indicated that they did not have any unstated concerns.

#### Accessing information related to welfare

Clients accessed information from a variety of sources outside of the veterinary practice, and did not always utilise their veterinary practice (Fig 2) or used several sources including the veterinary practice. In addition to the categories of information listed in the questionnaire, one client (C1) included seeking information on socialisation and said they would access information from most of the sources listed except a behaviourist or rescue centre/welfare organisation. Regarding behaviour support, five clients would not ask their veterinarian or veterinary practice (C8, C11, C12, C13, C17). Information for issues

TABLE 2: Summary of behaviour problems recognised by clients and whether mentioned in consultation No. of behaviour problems mentioned/No. of behaviour problems Behaviour problem mentioned and identified in questionnaire No. of problems owner rating (0=no problem, 1=a bit of a Client ID experienced No problem A bit of a problem A big problem problem, 2=a big problem) C1 13/19\* 0/10 0/0 0/3 15/18 (7 0/11 0/2 0/2 Do what you tell it to? (1) C3 7/18 0/2 1/5 0/0 **C**4 11/18 0/2 0/5 0/4 0/1 C5 8/18 0/7 0/0 С6 7/18 0/6 0/1 0/0 0/2 **C7** 10/18 0/8 0/0 C۸ 0/5 0/3 0/0 8/19 **C**9 8/18 1/2 0/0 Shows signs of fear of other things: 1/6 large lorries (1) Shows aggression towards other animals (0) 7/18 0/2 Do what you tell it to? (0) C10 1/5 0/0 C11 14/18 0/10 0/0 Shows aggression towards people (1) 1/4 C12 12/18 0/8 1/4 0/0 Pulls on the lead (1) 0/1 0/0 11/18 0/10 C13 C14 17/19 0/13 2/4 0/0 Shows aggression towards other animals (1) Other: barks at birds (1) C15 10/18 0/6 1/3 Chews/eats your possessions (1) 1/1 Jumps up at people (2) C16 10/18 0/2 Shows aggression towards people (1) 1/2 7/18 0/1 Excessively licks or chews themselves (1)

Bold and underscore indicates behaviour problem mentioned in consultation \*These clients provided an additional issue to the categories listed

relating to mental wellbeing, including purchase, training and behaviour problems, were as much as, or more likely to be sought, external to a veterinary professional.

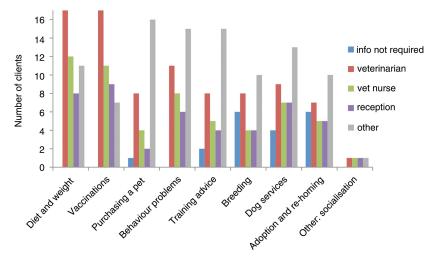
# **Discussion**Topics discussed

Thematic analysis of consultations identified five main themes of topic discussion: (i) navigation, (ii) medical, (iii) husbandry, (iv) behaviour and (v) cost. Veterinarians led navigation of the consultation, which indicates managing the framework of the appointment. Veterinarians instigated the majority of medical and husbandry discussions; however, clients also made contributions. Regarding behaviour, equal contributions were made by veterinarians and clients implying a shared discussion of this topic. Cost was infrequently mentioned which is consistent with others' findings (Coe and others 2009). In the context of the booster consultation, this is not surprising, as a standard fee was probably anticipated for this routine appointment; or for clients subscribing to the practice club this appointment would already be paid for. Care must be taken when extrapolating meaning from instigation data. Quantification by instigation is limited in that it is not clear how long discussions lasted, the questions or comments made, or the quality of the information provided.

#### Discussions relating to behaviour

Though clients contributed to discussion of medical and husbandry issues, these topics were more likely to be instigated by the veterinarian. They consistently included the subthemes of weight, flea and worming treatments. The client's instigation of these topics probably reflects media awareness, especially as obesity is a human health concern. Also, these aspects of animal care are more tangible, where weight can be measured and monitored; flea and worming are routine procedures for owners to implement. Neither topic requires 'prior' owner knowledge, unlike identifying behaviour issues where often the onus is on the owner to recognise and report a problem that may not be apparent in the clinic. Discussions of behaviour were instigated approximately equally by veterinarian and client.

The majority of the owner participants indicated they were experienced dog owners. Even experienced owners can misinterpret their dog's behaviour (Horowitz and Horowitz 2009, Tami and Gallagher 2009) and, therefore, underestimate problems. Clients' interpretations of their dog's behaviour and whether this indicated the dog did or did not like coming to the practice, suggested that many of these clients were perceptive to behaviour and may interpret some of it accurately. C7 responded in the post-consultation questionnaire that her dog was calm in the veterinary practice but territorial at home, yet, during the



Information required

FIG 2: Information clients would request from their veterinary practice or other source

consultation, the veterinarian noted the dog was like a 'coiled spring ready to go'. Maybe the client misinterpreted their dog's behaviour or the behaviour changed. Surprisingly, the veterinarian did not probe further about this animal's behaviour and discuss what support might be available. When veterinarians notice behaviour in the clinic, but assume that it is isolated to the veterinary scenario, they miss the opportunity to explore its wider ramifications.

Recognising that a behaviour exists does not always mean owners either understand its implications or that support is available. Nine clients identified in the questionnaire that their dogs barked/ howled when left alone, but none disclosed this in the consultation. Separation-related vocalisations may indicate an anxiety issue. Several clients rated this as 'no problem' (C1, C12, C14 where frequency was sometimes, and C3, C7 where frequency was rarely), perhaps this rating was because of the frequency of the problem or thinking that barking is acceptable behaviour, and/or because it occurs when they are away from the home the barking does not directly affect them. However, the dog's welfare may be compromised, it could be a nuisance to neighbours, and there are potential legal implications for the owner. Alternatively, perhaps a rating of no problem indicates the client's willingness to work through the problem. Further questioning would be needed to clarify if the owners had obtained advice about the problem, and to clarify whether such advice was appropriate.

Where clients identified multiple concerns, these were not necessarily discussed. A few clients mentioned behaviours they considered problematic, and a missed opportunity occurs when such remarks are not fully explored by the veterinarian. An example of this was a client who rated their dogs jumping up behaviour as 'a big problem'. During the consultation they asked the veterinarian if the dog's nails needed trimming:

Vet: I guess because she jumps up a lot you feel her scratching. Client: Oh it's terrible, she bruises me terribly she does. Vet: Uhuh Client: Don't you?

The jumping up behaviour was not discussed further. The client mentioned earlier in the consultation that the dog was lively and they used a harness to help handle her on walks. In such scenarios, clients may appreciate the opportunity to discuss training or their veterinarian's advice on where to seek appropriate support. In addition, veterinarians may be considered to have an obligation to suggest such routes and advise owners of the potential legal ramifications of their pet's behaviour, which can be extensive and extremely costly, even for such a case as this.

It is possible that problems rated as 'a bit of a problem' may be tolerated and go unstated until they become escalated (Horwitz 2008). However, five clients identified 'a big problem' and only one client mentioned this, and then possibly only because the behaviour (jumping up) was evident during the consultation.

Several dogs required muzzling during the consultation. Not only did this restrict the clinical examination able to be performed, but there are also implications of this behaviour outside of the consultation. Only one veterinarian asked how the dog behaved with other people, and the client acknowledged that the dog could be aggressive towards his wife, though it was unclear if this extended to others. Unfortunately, although the veterinarian prompted this disclosure, it was not explored further. The implications of this behaviour outside of the clinic are manifold, for example, compromised welfare (dog and human), potential injury to owners and others, deterioration of the animal-owner and owner-owner bonds, criminal legal proceedings. The behaviour displayed by these dogs indicated that they would benefit from behaviour support. Of course, not all issues will present in the clinic, for example, one client identified their dog was territorial at home and calm at the veterinary practice, and therefore, these problems can go undetected unless the client is questioned.

This lack of mentioning behaviour, and thus detecting and being able to address problems at an early stage, is regrettable and has welfare implications for animal and owner. Generally, the longer a behaviour problem exists, the more established it becomes and the more difficult it is to change. This is particularly so for those that involve

fear and/or aggression (Horwitz and others 2002). In addition, the owner's bond with the animal is likely to be damaged to the point that relinquishment or even euthanasia is the favoured option (Salman and others 2000).

Why behaviours were only mentioned in passing or not at all will now be considered.

#### **Barriers to discussion**

A client-centred approach leads to increased client satisfaction (Kinnersley and others 1999) and enables clients to express their concerns. Although veterinarians offered a variation on the question 'do you have any concerns?', two main barriers to expressing concerns are recognised: (i) *psychological barrier*: where respondents are anxious or embarrassed to mention something because it is serious, perceived as socially unacceptable, embarrassing or it feels trivial; (ii) *interactional barrier*: respondents tend not to mention concerns randomly but require conversation flow to facilitate introduction of new topics (Robinson 2001).

One aspect of overcoming the first psychological barrier includes developing trust and rapport and having a 'safe' environment to encourage disclosure. Possibly, there is no opportunity to foster such a relationship, particularly if clients visit infrequently, for a short consultation, or they do not have a regular veterinarian. Developing the client's trust requires the employment of good questioning and listening skills. Research indicates these areas need further addressing in veterinary education (Dysart and others 2011, Roshier and McBride 2012). Perhaps those clients who discuss concerns with reception staff do so because frequent interactions occur here, and clients may feel more at ease with this team.

Overcoming the second interactional barrier relies on creating opportunities to raise concerns. Particularly pertinent is the finding that some clients do not think they should mention behaviour in a medical appointment (Bergman and others 2002). It seems advisable for veterinarians to inquire about behaviour directly, as this approach appeared effective for stimulating discussion on other aspects, for example, 'any lumps or bumps?':

Vet: Any lumps or bumps that you've noticed at all?

Client F: No, no.

Client M: No.

Client F: The only one she got really was, was it around here? was it? like er, er like a mole or something.

Client satisfaction scoring of consultations was generally very high and no unstated concerns were disclosed in the questionnaire. Therefore, other possibilities for not discussing behaviour concerns could be:

- 1. Concerns are discussed at another time, or with another practice member. This is possible given the wellness pet scheme employed at the sample practices. This scheme provides owners the opportunity to visit veterinarians and nurses for additional appointments (eg, weight check, general examination). In addition, as previously mentioned, a member of reception staff may be perceived as more approachable than the veterinarian.
- The perceived timeliness of the problem, for example, firework phobias, are discussed at certain times of the year (Sheppard and Mills 2003), or when the problem has escalated. In either case, more efficacious help may have been provided if it had been discussed earlier.
- 3. Clients did not realise behaviour support was available; one study found that owners did not realise they could speak to their veterinarian about noise phobias (Blackwell and others 2005), and this may also be true for other behaviour issues.
- 4. Clients are not confident in the behaviour support offered by the veterinarian, so do not ask, or
- 5. Clients choose to access behaviour support elsewhere.

The People's Dispensary for Sick Animals (PDSA) recently produced an Animal Wellbeing (PAW) Report (PDSA 2011) that identified that owners do not access all the support available to them, including from their veterinarians. Therefore, it would have been useful to have asked those clients who identified behaviour concerns in

questionnaires if they have accessed support previously, from whom, and their reasons for making these decisions. Only C1 suggested an additional area of support, and this was for guidance on socialisation of their dog. This owner indicated that they would speak to their veterinary practice but not a behaviourist for advice. Perhaps they viewed behaviourists as providing support for established behaviour problem issues and not for supportive or preventative advice. Further studies are needed to find out why clients seek behaviour information, or why they choose not to, and what influences the choice of sources of support.

#### Conclusion

The intention of this study was to provide an initial investigation into the relationship between veterinarians and the addressing of problem behaviour, focussing on one scenario in the veterinary practice, that is, dogs having their annual booster. It was a small sample and cannot be considered to provide a representative view of the profession and

The data indicated that there was a paucity of assessment of behaviour concerns, even though these are potentially seriously detrimental to welfare. Assessment of how an animal behaves in various situations should be an integral aspect of veterinary examination. Appropriate further support can be offered directly, or indirectly by referral.

The study findings have highlighted areas for future research to further understand the practising of behavioural medicine. Clients indicated they would source support from the veterinary practice, though not necessarily from the veterinarian. Therefore, other scenarios in the veterinary practice should be explored, including services provided by other staff, different consultation formats, and the support provided to other species. A greater understanding of how owners address behaviour concerns is needed, including their reasons for making these choices. Understanding the needs of owners and animals enables the opportunities for the veterinary profession to support behaviour welfare to be optimised. When support is not accessed or provided, animal welfare, the human-animal bond, and the dog's impact on society can be compromised.

# Acknowledgements

The authors would like to thank the veterinarians and owners who took part in the study. We would also like to thank the staff in participating practices for their support throughout.

**Open Access:** This is an Open Access article distributed in accordance with the Creative Commons Attribution Non Commercial (CC BY-NC 3.0) license, which permits others to distribute, remix, adapt, build upon this work non-commercially, and license their derivative works on different terms, provided the original work is properly cited and the use is non-commercial. See: http://creativecommons.org/ licenses/by-nc/3.0/

#### References

- ANON (2007) British Veterinary Association Council News in Brief: definition of 'animal welfare'. Veterinary Record 161, 44
- ARBORELIUS, E. & TIMPKA, T. (1990) General practitioners' comments on video recorded consultations as an aid to understanding the doctor-patient relationship. Family
- BERGMAN, L., HART, B. L., BAIN, M. & CLIFF, K. (2002) Evaluation of urine marking by cats as a model for understanding veterinary diagnostic and treatment approaches and client attitudes. Journal of the American Veterinary Medical Association 221, 1282–1286
- BLACKWELL, E., CASEY, R. & BRADSHAW, J. (2005) Firework fears and phobias in the domestic dog. Scientific report for the RSPCA. Bristol, UK: University of Bristol. www.rspca.org.uk/servlet/Satellite?blobcol=urlblob&blobheader=application%2Fpdf &blobkey=id&blobtable=RSPCABlob&blobwhere=1131368232338&ssbinary=true Accessed September 20, 2012
- BOYATZIS, R. E. (1998) Transforming Qualitative Information: Thematic Analysis and Code Development. USA: Sage Publications Inc
- CHRISTIANSEN, S. B. & FORKMAN, B. (2007) Assessment of animal welfare in a veterinary context - A call for ethologists. Applied Animal Behaviour Science 106,

- COE, J. B., ADAMS, C. L. & BONNETT, B. N. (2009) Prevalence and nature of cost discussions during clinical appointments in companion animal practice. Journal of the American Veterinary Medical Association 234, 1418-1424
- COE, J. B., ADAMS, C. L., EVA, K., DÉSMARAIS, S. & BONNETT, B. N. (2010) Development and validation of an instrument for measuring appointment-specific client satisfaction in companion-animal practice. Preventive Veterinary Medicine 93,
- DEFRA (2009) Code of practice for the welfare of dogs. www.defra.gov.uk/publications/ files/pb13333-cop-dogs-091204.pdf. Accessed September 20, 2012
- DUNCAN, I. J. H. & FRASER, D. (1997) Understanding animal welfare. In Animal Welfare. Eds M. C. Appleby & B. O. Hughes. Oxon, UK: CAB International. pp
- DYSART, L. M. A., COE, J. B. & ADAMS, C. L. (2011) Analysis of solicitation of client concerns in companion animal practice. Journal of the American Veterinary Medical Association **238**, 1609–1615
- EVERITT, S. M. (2011) Clinical decision making in veterinary practice. Doctorate thesis. University of Nottingham, UK
- FVE & AVMA (2011) The Federation of Veterinarians of Europe and the American Veterinary Medical Association: Pre-eminent veterinary groups in Europe and U.S. issue joint statements on animal care, treatment and veterinary education (14th September 2011). www.fve.org/news/press\_releases/docs/2011\_09\_fve\_avma\_press\_ release%20(2).pdf. Accessed September 20, 2012
- HMSO (2006) Animal Welfare Act 2006 (c.45). London: HMSO. www.legislation.gov. uk/ukpga/2006/45/pdfs/ukpga\_20060045\_en.pdf. Accessed September 20, 2012
- HOROWITZ, D. & HOROWITZ, A. (2009) A comparison of dog owners' claims about their pets' guilt with evidence from dog behavior. Journal of Veterinary Behavior: Clinical Applications and Research 4, 104
- HORWITZ, D., MILLS, D. & HEATH, S. (2002) BSAVA manual of canine and feline behavioural medicine BSAVA. Gloucester, UK: Quedgeley
- HORWITZ, D. F. (2008) Managing pets with behavior problems: realistic expectations. Veterinary Clinics of North America; Small Animal Practice 38, 1005–1021
- KINNERSLEY, P., STOTT, N., PETERS, T. J. & HARVEY, I. (1999) The patient-centredness of consultations and outcome in primary care. British Journal of General Practice 49,711-716
- LATVALA, E., VUOKILA-OIKKONEN, P. & JANHONEN, S. (2000) Videotaped recording as a method of participant observation in psychiatric nursing research. Journal of Advanced Nursing 31, 1252–1257 LUND, J. D., AGGER, J. F. & VESTERGAARD, K. S. (1996) Reported behaviour
- problems in pet dogs in Denmark: age distribution and influence of breed and gender. Preventive Veterinary Medicine 28, 33-48
- MANNING, P. (2008) Veterinary consultations: the value of reflection. *In Practice* **30**, 47–49 MARTIN, E. & MARTIN, P. M. L. (1984) The reactions of patients to a video camera
- in the consulting room. Journal of the Royal College of General Practitioners 34,607-610 MCMILLAN, F. D. & ROLLIN, B. E. (2001) The presence of mind: on reunifying the animal mind and body. Journal of the American Veterinary Medical Association 218, 1723-1727
- OVERALL, K. L. (1997) Clinical Behavioral Medicine for Small Animals. Missouri, USA: Mosby
- PDSA (2011) The People's Dispensary for Sick Animals: Animal Wellbeing (PAW) Report 2011 - the state of our pet nation. www.pdsa.org.uk/pet-health-advice/pdsa-animalwellbeing-report?animal=dog. Accessed September 20, 2012
- PRINGLE, M. & STEWART-EVANS, C. (1990) Does awareness of being video recorded affect doctors' consultation behaviour? British Journal of General Practice 40, 455-458
- ROBINSON, J. D. (2001) Closing medical encounters: two physician practices and their implications for the expression of patients' unstated concerns. Social Science and Medicine **53**, 639–656
- ROSHIER, A. L. & MCBRIDE, E. A. (2012) Veterinarians' perceptions of behaviour support in small animal practice. Veterinary Record. Published Online First: 28 December 2012. doi: 10.1136/vr.101124.
- SALMAN, Mo. D., HUTCHISON, J., RUCH-GALLIE, R., KOGAN, L., NEW, J. C. Jr, KASS, P.H. & SCARLETT, J.M. (2000) Behavioral reasons for relinquishment of dogs and cats to 12 shelters. Journal of Applied Animal Welfare Science 3, 93-106
- SEALE, C. (1999) The Quality of Qualitative Research. London, UK: Sage
- SHAW, J. R., ADAMS, C. L., BONNETT, B. N., LARSON, S. & ROTER, D. L. (2008) Veterinarian-client-patient communication during wellness appointments versus appointments related to a health problem in companion animal practice. Journal of the American Veterinary Medical Association 233, 1576–1586
- SHEPPARD, G. & MILLS, D. S. (2003) Evaluation of a dog-appeasing pheromone as a potential treatment for dogs fearful of fireworks. Veterinary Record 152, 432-436
- TAMI, G. & GALLAGHER, A. (2009) Description of the behaviour of the domestic dog (Canis familiaris) by experienced and inexperienced people. Applied Animal Behaviour Science 120, 159-169
- THOMAS, D. R. (2006) A general inductive approach for analyzing qualitative evalua-
- tion data. American Journal of Evaluation 27, 237–246
  WARNE, T. & MCANDREW, S. (2009) Constructing a bricolage of nursing research, education and practice. Nurse Education Today 29, 855–858
- WICKENS, S. M. (2007) An overview of developments in the regulation of those treating behavioral disorders in animals in the United Kingdom. Journal of Veterinary Behavior: Clinical Applications and Research 2, 29-34