Original Article





Happy cats: stress in cats and their carers associated with outpatient visits to the clinic

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Abstract

Objectives The importance of the effects of stress on cats is well recognised, with visits to the veterinary clinic a common cause of stress. The aim of this study was to explore owners' experiences of stress, both for themselves and their cat, during veterinary visits, and to gather data on owners' perception of resources within the clinic to reduce stress in their cats.

Methods A questionnaire aimed at cat owners with recent experience of an outpatient visit to the veterinary clinic was developed and distributed. Questions covered demographics; their most recent veterinary visit; their general experience of visits over the past 3 years; measures taken by the clinic to reduce stress; and awareness of the Cat Friendly Clinic programme. There were various question types, with owners often asked to rate stress from 1 (least stressful) to 10 (most stressful).

Results A total of 277 respondents gave details about their experience of consultations over the past 3 years. Owners rated the stress of travelling to the clinic, other animals in the waiting room and the consultation itself (all median 6, interquartile range 4–8) as the most stressful elements. Most owners reported gentle methods of removing the cat from their carrier; however, almost a third (n = 81/263; 30.8%) had seen their cat scruffed during a consultation. Cat-only waiting rooms were viewed as the most effective measure to reduce stress in the clinic. *Conclusions and relevance* Veterinary clinics are already taking steps to address stress in cats, and owners have a good awareness of stress in their cats. Future work should focus on trialling specific interventions to determine their effectiveness in reducing stress in feline patients, and measures currently perceived by owners to be highly

effective, such as cat-only waiting rooms, should be used where feasible.

Keywords: Stress; primary care practice; clinical examination; behaviour; consultations

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Introduction

The significance of the effects of stress in cats has been increasingly recognised in recent years, with stress affecting general well-being and potentially putting cats at increased risk of certain health problems, such as infectious diseases, feline lower urinary tract disease,¹ and behavioural problems such as over-grooming and urination/defecation outside the litter box. Their cat being stressed, and its associated behaviour changes, can have an impact on owners too, with the 2020 PDSA Animal Wellbeing report² finding that 41% of owners wanted to change a behaviour potentially linked to stress in their cat. In the same survey, 43% of veterinary surgeons highlighted chronic stress as one of the five most important welfare issues that need to be addressed for cats. Stress during clinic visits may be of particular concern, as previous studies found higher levels of stress exhibited when a cats were examined in a clinic compared with a home setting,³ and during simulated consultations,

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compared with undisturbed research colony cats.⁴ Stress can also have an impact on physiological parameters, such as blood pressure, temperature, heart rate and respiratory rate, making it difficult to get accurate readings in the clinic setting.⁵

Various organisations have developed programmes to address the issue of stress in pets. Fear Free⁶ was developed in 2016, and provides courses and certification for those working with pets in a range of different roles, including trainers, groomers, pet sitters and those working in veterinary care or rescue shelters. International Cat Care (iCatCare) developed the Cat Friendly Clinic (CFC) programme7 in 2012 via consensus guidelines to focus more specifically on the effects of stress exhibited by cats in veterinary care. Two further Cat Friendly Guidelines, covering veterinary interactions (including approach and handling techniques) and the veterinary environment, are due to be published in JFMS in November 2022.8,9 The CFC programme provides guidance and an accreditation scheme, to help veterinary clinics implement changes to help reduce stress in their feline patients. Recommendations focus on opportunities to reduce stress travelling to the clinic, in the waiting room, consultation room, during handling and when in hospitalisation facilities, among other things. However, it remains unclear which parts of the clinic visit owners feel are most stressful for their cats, and which of these recommendations are likely to have the biggest impact on reducing stress in their cats.

The primary aim of this study was to explore cat owners' experiences of stress, in both their cats and themselves, during outpatient visits to the veterinary clinic, including the journey to the clinic, waiting room experience and the consultation itself. A further aim was to gather data on cat owners' perception of various facilities and resources within the clinic to reduce stress in their cats.

Materials and methods

Population of interest

The target population for the questionnaire was cat owners or carers with recent experience of a consultation at the veterinary clinic. Respondents could take part from anywhere in the world, they had to be at least 18 years old and could only complete one questionnaire per household.

Questionnaire design

The questionnaire (see survey in the supplementary material) consisted of 51 questions across four different sections. Initial questions asked for basic demographic data (ie, whether a cat owner, breeder or rescue shelter work, and country resided in). The next two sections focused on the owner's experience of taking their cat to the clinic for a consultation, with the first section asking about the most recent consultation, and the second asking more generally about the owner's experiences of attending the clinic with their cat over the previous 3 years. The final section focused on any measures taken by the owner's clinic to reduce stress in cats, and the owner's awareness of the CFC scheme.⁷ The questions took a variety of forms, including numerical scoring, multiple choice and free-text boxes. The initial draft of the questionnaire was piloted with a small group of colleagues who suggested amendments prior to launch of the final questionnaire. The final questionnaire was hosted on the Vet Professionals website in full compliance with General Data Protection Regulation (EU 109 2016/679).

Questionnaire distribution

The questionnaire was launched on 24 March 2020. An invitation to complete the relevant survey was emailed to cat owners on the Vet Professionals database, consisting of around 960 owners worldwide. Snowball sampling, where existing respondents help to recruit further respondents by sharing the questionnaire with their acquaintances, was also conducted. The questionnaire was promoted on social media platforms (eg, Facebook and Twitter) along-side promotion by iCatCare, Cats Protection and *Vet Times*. The questionnaire was closed to all respondents on 1 July 2020. Data collected from the survey were collated and stored using FormSite (Vroman Systems).

Data management and analysis

Data processing and descriptive statistics were carried out in Microsoft Excel. As a result of the launch date, many of the most recent consultations reported by owners occurred during the 2020 COVID-19 pandemic, when health and safety considerations meant that owners often did not accompany their cat into the clinic. Therefore, only responses to questions about the owner's general experience of visits to the clinic over the past 3 years were taken forward for analysis, to ensure that responses were focused predominantly on experiences of consultations in pre-COVID times. For questions involving numerical rating of stress or empathy on a scale of 1–10, median and interquartile range (IQR) were calculated as the data were not normally distributed.

Ethical approval

Approval was obtained from the Human Ethical Review Committee (HERC) at the Royal (Dick) School of Veterinary Studies, The University of Edinburgh for the collection of data through an online questionnaire of cat owners, and subsequent analysis of these data (approved 21 March 2020; reference: HERC_483_20).

Results

Demographics

There were a total of 371 responses to the questionnaire, with 277 respondents completing at least one question in

the section asking more generally about experiences of consultations over the past 3 years, and so having their responses taken forward for further analysis.

The 277 responses included 263 from cat owners (94.9%); 21 (7.6%) veterinary nurses/technicians; 15 (5.4%) rescue shelter owner/workers; 11 (4.0%) veterinarians; six (2.2%) cattery owners/workers; five (1.8%) educators of veterinary professionals; five (1.8%) cat breeders; and 17 (6.1%) other. Most respondents (n = 197; 71.1%) were from the UK, 37 (13.4%) were from the USA, nine (3.2%) were from Ireland and 16 other countries were represented (fewer than eight from each). Over half had been seen for their most recent consultation before COVID protocols were in place (n = 170; 61.4%) with the remaining 38.6% (n = 107) having their most recent consultation during the COVID pandemic. Over three-quarters (n = 216; 78.0%) usually brought their cat to the clinic for their booster vaccination, with a small number stating 'it depends' (n = 20; 7.2%) or that they did not usually bring their cat for a booster vaccination (n = 41; 14.8%).

Journey to the clinic

A fifth of owners (n = 57; 20.6%) had previously been given advice by a clinic on transporting their cat, with 4.0% (n = 11) not sure and 75.5% (n = 209) never having been given advice. Both putting the cat in the carrier and travel to the clinic were viewed as more stressful overall for the cat than the owner/carer, although many respondents still rated the stress for themselves fairly highly (Table 1).

The waiting room

Just over half of respondents usually waited in a shared waiting room (defined as any waiting room shared with dogs and other species) on arrival at the clinic (n = 141/276; 51.1%), while a further 30.8% (n = 85/276) usually waited in an area of the general waiting room reserved for cats. A further 9.8% (n = 27/276) waited in a cat-only waiting room with a door separating it from reception/general waiting area, while the remaining 8.3% (n = 23/276) selected 'other', with some of these respondents reporting waiting in the car park, while others reported going directly into the consultation room.

The length of time in the waiting room and the presence of other animals were perceived as the most stressful aspects of the waiting room, with bright lighting perceived as the least stressful (Table 2). However, a higher number of respondents answered 'not sure' when asked to rate the stress of bright lighting and other smells, compared with other sources of stress.

The consultation room and beyond

When asked how their cat was usually removed from the carrier, some respondents stated they were usually gently lifted, either by themselves (n = 77/264; 29.2%) or the veterinarian (n = 46/264; 17.4%). A further 15.5% (n = 41/264) stated that their cat usually came out on their own, while 10.6% (n = 28/264) said the carrier was usually dismantled and the cat examined in the base of it. A small number of respondents stated that their cats were tipped (n = 22/264; 8.3%) or dragged (n = 8/264; 3.0%)

Table 1 Cat owners'/carers' rating of stress on a scale of 1-10 (1 = least stressful, 10 = most stressful) for aspects of the journey to the clinic for both themselves and their cat

Source of stress	Number rating stress 1–10*	Median (IQR)	Number answering 'not sure'
Putting cat in carrier (for cat)	273	6 (2–8)	4
Travel to clinic (for cat)	274	6 (4–8)	3
Putting cat in carrier (for carer)	274	4 (2–7)	2
Travel to clinic (for carer)	276	4.5 (2–7)	0

*Indicates the total number of respondents who gave a value from 1 to 10, rather than answering 'not sure' IQR = interquartile range

Table 2 Cat owners'/carers' rating of stress on a scale of 1-10 (1 = least stressful, 10 = most stressful) for aspects of the waiting room experience for their cat

Source of stress	Number rating stress 1–10*	Median (IQR)	Number answering 'not sure'
Length of wait	268	5 (3–7)	7
Presence of other cats	259	4 (2–6)	16
Presence of other animals	260	6 (4–8)	15
Presence of people	256	4 (2–6)	19
Bright lighting	224	2 (1–4)	51
Other smells	215	4 (1–6)	60

*Indicates the total number of respondents who gave a value from 1 to 10, rather than answering 'not sure' IQR = interquartile range

Source of stress	Number rating stress 1–10*	Median (IQR)	Number answering 'not sure'
Coming out of carrier	261	5 (3–7)	3
Consultation	258	6 (4–8)	5
Getting back in carrier	256	2 (1–4)	6
Travelling home	262	4 (2–6)	2
Rest of day at home	258	2 (1–3)	4

Table 3 Cat owners'/carers' rating of stress on a scale of 1-10 (1 = least stressful, 10 = most stressful) for aspects of the consultation for their cat

*Indicates the total number of respondents who gave a value from 1 to 10, rather than answering 'not sure' IQR = interquartile range

Table 4 Cat owners'/carers' rating of empathy of clinic staff during outpatient visits on a scale of 1–10 (1 = least empathy, 10 = most empathy)

Empathy	Total number rating stress 1–10*	Median (IQR)	Number answering 'not sure'	Number answering 'NA'
Veterinary surgeon	254	10 (7–10)	5	3
Veterinary nurse	217	10 (7–10)	11	34
Reception staff	234	9 (6–10)	13	15

*Indicates the total number of respondents who gave a value from 1 to 10, rather than answering 'not sure'

IQR = interquartile range; NA = not applicable

out of their carrier. The remaining 15.9% (n = 42/264) of respondents selected another answer, with many stating that it varied between consultations.

Almost a third of respondents (n = 81/263; 30.8%) had seen their cat 'scruffed' by a veterinarian or veterinary nurse during a consultation, while 62.7% (n = 165/263) had never seen their cat scruffed and 6.5% (n = 17/263) were unsure.

Coming out of the carrier and the consultation had a higher median stress score than getting back in the carrier and the rest of the day at home (Table 3).

Empathy

Empathy was rated highly by respondents for all members of staff, with median scores of 9 and 10 (Table 4).

Witnessing stress in their cat

Almost all respondents (94.7%; n = 248/262) said witnessing stress in their cat had had an effect on them, with almost half (48.5%; n = 127/262) stating it had a moderate effect (mild 20.2%, n = 53/262; severe 26.0%, n = 68/262). Almost a third of respondents (31.3%; n = 82/262) said witnessing stress in their cats had put them off visiting the veterinary clinic. Free-text comments gave examples of this:

'I have one cat who gets so upset that I really try not to take him to the vet except in an emergency'

'... I do boosters at 13-month intervals rather than 12 months as a result. I've also delayed tooth-cleaning appointments'

'If a minor problem, I wonder if the stress of the visit would be more harmful than a "wait-and-see" approach'

'Cat friendly' measures in the clinic

Around two-thirds of respondents (n = 165/248; 66.5%) said their clinic had one or more resources in the waiting room to reduce cat stress, with raised surfaces on which to place carriers (n = 90/248; 36.3%) the most frequently reported measure (Figure 1). The remaining 33.5% (n = 83/248) of respondents reported no waiting room resources in their clinic.

Cat-only waiting rooms were the most highly rated by respondents in terms of being helpful for reducing stress in cats, while posters or information videos were rated the least helpful (Table 5).

Cat-only waiting rooms were selected most frequently by owners/carers as their first choice (n = 126/247; 51.0%) of 'cat-friendly' measures for reducing cat stress (Figure 2).

CFCs

Fewer than half of respondents (n = 110/247; 44.5%) had heard of iCatCare or the CFC programme. Fewer than a third (n = 74/247; 30.0%) had previously attended a CFC, while 23.1% (n = 57/247) were not sure and 47.0%(n = 116/247) had not attended a CFC. Most respondents (n = 238/247; 96.4%) said a calm, stress-free environment for their cat was also important to them, while only two respondents (0.8%) said this was not important and seven (2.8%) were unsure. Of the 236 respondents who rated the importance of a calm, stress-free clinic environment



Figure 1 Percentage of 248 respondents reporting different cat friendly measures/resources available in the waiting room of the clinic they attend

Table 5 Cat owners'/carers' rating of how helpful various waiting room resources are for cat stress on a scale on 1-10 (1 =least helpful, 10 =most helpful)

How helpful for stress?	Total number rating 1–10*	Median (IQR)	Number answering 'not sure'
Cat-only waiting room	229	10 (7–10)	18
Area of general waiting room reserved	230	8 (5–10)	17
for cats			
Raised surfaces for cat carriers	230	8 (7–10)	17
Towels/blankets to cover carriers	221	7 (5–9)	26
Quiet waiting area	234	9 (7–10)	13
Feliway diffuser	205	8 (5–10)	42
Screens to separate cats from dogs	214	7 (5–10)	33
Allowed to leave cat in the car	227	7 (3–10)	20
Posters or information videos	225	6 (4–8)	22
Separate cat-only appointment times	217	9 (6–10)	30

*Indicates the total number of respondents who gave a value from 1 to 10, rather than answering 'not sure' IQR = interquartile range

from 1 to 10 (1 = least important, 10 = most important), the median rating was 10 (IQR 8–10).

Discussion

This study suggests that visits to the veterinary clinic are a source of stress not only for many cats, but also for their owners. The findings are consistent with previous work, which found that many owners found veterinary visits stressful, and felt their pet did, too.¹⁰

Addressing sources of stress during clinic visits, and developing effective interventions to minimise them, is vital for reducing the direct impact of stress on feline patients, and may also help to ensure they receive the healthcare they need. In the current study, most owners said that witnessing stress in their cat had an impact on them, with almost a third saying it had put them off bringing their cat to the clinic. This is consistent with findings that 27% of cat owners feel stress is a very important factor when deciding whether to bring them to the clinic for vaccination.¹¹ Additionally, cat owners who viewed stress as very important were less likely to vaccinate them than owners who viewed it as less important. Another study¹⁰ found that cat owners were more likely than dog owners to find veterinary visits stressful and take their pet to the clinic only if they were unwell. Clearly, witnessing stress has a huge impact on carers and their willingness to return for future consultations; hence, it is imperative that we address this.

iCatCare developed the CFC programme to address sources of stress during veterinary clinic visits for cats and their owners.⁷ Practices seeking accreditation are required to meet certain criteria in areas such as cat



Figure 2 Cat owners'/carers' ranking of cat friendly measures. Questionnaire respondents were asked to rank various measures to reduce cat stress, giving a first, second and third choice (247 respondents)

handling and client communication, as well as facilities in the waiting room, consultation room, hospitalisation and operating theatres, among other standards. iCatCare also launched a 'scruff free' campaign, to encourage the use of respectful handling and gentle restraint of cats, in order to reduce stress. The results from the current study suggest that only a very small number of owners witnessed their cat being dragged or tipped from a carrier, with the vast majority witnessing gentler methods of removing a cat from, or encouraging them out of, their carrier. Educating owners regarding carrier choice, and encouraging the use of carriers that can easily be dismantled, may help to further reduce stress related to removing the cat from the carrier. Almost a third of respondents had witnessed their cat being scruffed, suggesting this practice may still be relatively commonplace. One study examined behavioural and physiological responses in cats handled using different methods,¹² and found that passive restraint was associated with fewer negative responses than aversive handling techniques such as scruffing, clip restraint and full-body restraint. Encouraging a move to gentler, less aversive handling techniques could be beneficial not only in terms of reducing cat and owner stress, but also from a health and safety perspective in reducing bites and scratches for those handling cats.

Owners rated empathy from veterinarians, veterinary nurses and the reception team very highly. A systematic review examining the success of canine and feline consultations found client satisfaction was significantly higher when the veterinarian expressed empathy to the owner.¹³ The same study also found that higher client satisfaction was associated with better adherence to recommendations. Owner perceptions of the veterinary team as highly empathetic in the current study could be crucial not only in ensuring cats get the medical care they need, but also in engaging owners in any interventions to reduce stress in their cats in the future.

In the current study, all cat-friendly measures asked about were seen as helpful by owners to varying degrees, although some of these were reported to be more widely implemented by clinics than others. This may, in part, be linked to the feasibility of implementing some of these measures, (eg, cat-only waiting rooms). Raised surfaces and Feliway diffusers were the most widely implemented, despite not being the highest-rated resource among owners. Conversely, cat-only waiting rooms were rated as highly desirable by cat owners in reducing stress, and so provision of these - where possible - may have positive effects on cat and owner stress, as well as client satisfaction. Even measures that may be practical to implement in most practices, such as the provision of towels/ blankets to cover carriers, Feliway diffusers or allowing owners to stay in their car with their cat, were in place in fewer than a quarter of practices. The reasons for this are unclear but could be related to the limited evidence demonstrating the impact of each of these potential interventions, as well as time constraints and other feasibility issues for individual clinics. Future work could focus on working with veterinary practices to determine which of these interventions might be more feasible in that setting, then measuring the implementation of these changes on cat and owner stress.

The role of other measures to reduce stress in cats and their owners when seeking veterinary care could also be considered alongside this. For example, a single preappointment dose of oral gabapentin has been found to reduce stress, increase ease of handling and have minimal side effects in cats visiting the veterinary clinic.¹⁴ More frequent use of home visits, where possible, for particularly stressed cats, may also help reduce the negative consequences of stress. One study found that even when low-stress handling techniques were used, cats were less stressed when examined at home than in a veterinary clinic environment.³ Similarly, more strategic use of telemedicine, for example, telephone and video consultations, may help reduce stress for some cats. A survey of veterinary telemedicine consultations during the COVID pandemic¹⁵ found that reduced stress was perceived to be a major benefit of telemedicine for both veterinarians and owners, with most agreeing that these consultations should continue to be offered, where appropriate, after the pandemic.

One limitation of this study is that the respondents were likely to be a highly engaged group and may not be representative of all cat owners. In fact, 78% stated they usually brought their cat to the clinic for a booster vaccination, suggesting this may be a particularly dedicated group of owners who have regular contact with their veterinarian. In addition, the timing of the survey meant that, for some owners, their most recent experience of a consultation was during the COVID pandemic when different procedures were in place at veterinary clinics. Owners were asked to think about their experience of consultations over the previous 3 years, and, as discussed previously, most of these owners are likely to be those who visit the clinic with their cat regularly. However, more recent consultations may be clearer in their memory and may have influenced the answers given. This could particularly apply to the experience of the waiting room and consultation room, with many veterinary clinics minimising client access to these areas during the pandemic.

Conclusions

Stress during clinic visits is already being addressed, with high levels of perceived empathy and gentle handling techniques among the veterinary team, as well as good awareness of stress in their cats among owners. Taking the next steps in tackling feline stress, by trialling the effectiveness of specific interventions in the clinic, and using measures such as cat-only waiting rooms where feasible, is crucial to minimising stress during outpatient visits.

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Supplementary material The following file is available online:

Happy cats survey.

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Informed consent This work did not involve the use of animals (including cadavers) and therefore informed consent was not required. No animals or people are identifiable within this publication, and therefore additional informed consent for publication was not required.

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References

- 1 Sparkes A. Understanding feline idiopathic cystitis. *In Pract* 2018; 40: 95–101.
- 2 PDSA. PDSA Animal Wellbeing Report 2020. https:// www.pdsa.org.uk/media/10540/pdsa-paw-report-2020. pdf (2020, accessed 11 May 2022).
- 3 Nibblett BM, Ketzis JK and Grigg EK. Comparison of stress exhibited by cats examined in a clinic versus a home setting. *Appl Anim Behav Sci* 2015; 173: 68–75.
- 4 Belew AM, Bartlett T and Brown SA. Evaluation of the white-coat effect in cats. J Vet Intern Med 1999; 13: 134–142.
- 5 Quimby JM, Smith ML and Lunn KF. Evaluation of the effects of hospital visit stress on physiologic parameters in the cat. *J Feline Med Surg* 2011; 13: 733–737.
- 6 Fear Free. Taking the 'pet' out of 'petrified'. https://fear-freepets.com/ (2022, accessed 11 May 2022).
- 7 International Cat Care (iCatCare). Cat Friendly Clinic (CFC). https://catfriendlyclinic.org/ (2022, accessed 11 May 2022).
- 8 Rodan I, Dowgray N, Carney HC, et al. 2022 AAFP/ISFM cat friendly veterinary interaction guidelines: approach and handling techniques. J Feline Med Surg 2022; 24: 1093–1132.
- 9 Taylor S, St Denis K, Collins S, et al. 2022 ISFM/AAFP cat friendly veterinary environment guidelines. J Feline Med Surg 2022; 24: 1133–1163.
- 10 Volk JO, Felsted KE, Thomas JG, et al. Executive summary of the Bayer veterinary usage study. J Am Vet Med Assoc 2011; 238: 1275–1282.
- 11 Habacher G, Gruffydd-Jones TJ and Murray J. Use of a web-based questionnaire to explore cat owners' attitudes towards vaccination in cats. *Vet Rec* 2010; 167: 122–127.
- 12 Moody CM, Mason GJ, Dewey CE, et al. Getting a grip: cats respond negatively to scruffing and clips. *Vet Rec* 2020; 186: 385. DOI: 10.1136/vr.105261.
- 13 Corah L, Mossop L, Cobb K, et al. Measuring the success of specific health problem consultations in cats and dogs: a systematic review. *Vet Rec* 2018; 183: 22. DOI: 10.1136/ vr.104759.
- 14 Van Haaften KA, Eichstadt Forsythe LR, Stelow EA, et al. Effects of a single preappointment dose of gabapentin on signs of stress in cats during transportation and veterinary examination. J Am Vet Med Assoc 2017; 251: 1175–1181.
- 15 Caney SMA, Robinson NJ, Gunn-Moore DA, et al. Veterinary surgeon, veterinary nurse and owners' experience of feline telemedicine consultations during the 2020 COVID-19 pandemic. Vet Rec 2022. DOI: 10.1002/vetr.1738.