

Canine separation anxiety: how first referral practices can help

There are currently approximately 10.1 million pet dogs in the UK, equating to about 26% of the UK adult population owning a dog. Early research indicates that dogs have played an essential role in helping their owners to cope throughout the COVID-19 pandemic. This article explores the potential impact of lockdown on the canine experience and the risk of developing separation-related behavioural problems, as well as how first referral veterinary practices can support their clients through this.

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The UK has now experienced three significant periods of lockdown, during which people have spent considerably more time in their homes. Key features of this included the closure of non-essential businesses and schools; lack of access to childcare; increases in working from home; furlough from employment and unemployment.

Less than 3% of UK employees worked exclusively from home before the pandemic. This figure increased to over 30% in April 2020, before declining to 21% in September 2020 (University of Essex, 2020). It is not yet clear how this will evolve, but the results of a YouGov survey (2020) showed that three quarters of staff who were working from home thought it was likely that their employer would continue to let them do so (Parry et al, 2021).

Changes to pet dogs' routines

The People's Dispensary for Sick Animals (PDSA) annual Animal Wellbeing (PAW) Report series provides useful comparative statistics on the amount of time that dogs were left alone pre- and post-lockdown (PDSA, 2019, 2020). A more detailed breakdown of the data was provided on request (*Table 1*) and indicated that the most substantial increase was in dogs being left for 0–2 hours per weekday, which rose from 39% to 63% between February 2020 and August 2020.

Data from a Dogs Trust survey in May 2020 ($n=6009$) comparing owner recollections from February 2020 vs the last 7 days reported similar results (Christley et al, 2021). The number of dogs left alone for less than 5 minutes per day increased from 15% pre-lockdown, to 58% during lockdown. Similarly, the

proportion of dogs left alone for 3 hours or more decreased from 48% in February 2020 to 5.4% during lockdown.

Pet dogs' routines were also reportedly affected by less frequent walks and being kept on a lead more often, compared with before lockdown. However, dogs were more likely to have play sessions with owners, be given toys and be left at home less frequently and for shorter periods of time (Christley et al, 2021). Also, when dogs were at home, they were more likely to be spending more time with both the adults and children in the family (Holland et al, 2021).

Furthermore, research suggests that lockdown restrictions and the impact of the pandemic on the economy have dramatically altered the canine experience in the UK over the past year.

Table 1. Hours dogs spent alone

Hours dog left alone	March 2020		August 2020	
0–2	882	39%	1245	63%
2–4	582	26%	387	20%
4–6	432	19%	177	9%
6–8	191	9%	73	4%
8–10	96	4%	42	2%
10–12	24	1%	19	1%

Less than 1% of dogs were reported to be left alone 12–24 hours, and this did not change between surveys. Data adapted from the People's Dispensary for Sick Animals' annual Animal Wellbeing Report (2020)

Table 2. Source of dog		
Source	March 2020	August 2020
Rescue centre (based in UK or abroad)	481 (20%)	412 (20%)
Breeder (of one specific breed, or multiple breeds; excluding high volume breeding establishments)	798 (34%)	755 (37%)
Private seller (likely to include private rehomes)	532 (23%)	488 (24%)
Number of respondents	2359	2056
<i>Data adapted from the People's Dispensary for Sick Animals' annual Animal Wellbeing Report (2020)</i>		

Changes in the pet dog population

The most reliable figures to date indicate that, as of August 2020, there had been no significant change in the percentage of owners who acquired their dog less than a year ago (PDSA, 2020).

New pet owners who acquired their animal since the start of lockdown were more likely to be working from home, at least part of the time, but this may indicate a change in the kind of demographics of people that were purchasing pets rather than an increase in pet purchases overall.

The majority of new dogs continued to be acquired from breeders, rescue organisations or private sellers (Table 2).

Rescue organisations within the UK have reported increased demand for rehoming pets throughout the pandemic, as well as a reduction in cases of abandonment (Association of Dogs and Cats Homes, 2020, 2021). In one survey, respondents reported a 32% reduction in the number of dogs entering rescue centres in October–December 2020 compared with 2019. Another pair of surveys indicated that 79% of rescue centres reported more people wishing to rehome a dog in January 2021 compared to 58% in May 2020 (Association of Dogs and Cats Homes, 2020, 2021). This was also mirrored in worldwide statistics (Morgan et al, 2020).

Concerns have been raised with regard to the increased importation of dogs and puppies to meet the increased demand. The UK government data reported double the number of Intra-Trade Animal Health Certificates issued between June and August 2020 (12733) compared to the same period in 2019 (5964) (Royal Veterinary Society, 2020), and each license covers five or more dogs. However, there is currently no evidence to suggest that importation is the main source of dog purchases.

There is evidence to suggest that pet dogs' routines have been significantly altered during the three lockdowns, and some of these changes are likely to continue. There is currently mixed evidence regarding as to the rate increase in the pet dog population and the importation of dogs from abroad to meet UK demand.

Separation-related problem behaviours

Separation-related problems place a significant burden on both a dog and their owner(s), and are listed as one of the most common reasons for a dog to be rehomed or surrendered to an animal shelter (Salman et al, 1998; Sherman and Mills, 2008; Mohan-

Gibbons and Weiss, 2015). The broader category of separation-related problem behaviour is used in preference to the older label of 'separation anxiety' to more accurately reflect the breadth of causal factors which may underpin apparently similar behaviours (McCrave, 1991; Appleby and Pluijmakers, 2003; Sherman, 2008; Sherman and Mills, 2008; Mills et al, 2013).

These behaviours usually include vocalisations, restlessness, destructiveness, hypersalivation, rearrangement of household objects and inappropriate defecation or urination (Simpson, 2000; Blackwell et al, 2006). These are described as 'separation-related' when they occur if the dog is left alone or is separated from a significant person(s).

Their prevalence is estimated at between 22.3–55% of the canine population (Bradshaw et al, 2002; Mills and Mills, 2003; Marques Soares et al, 2010), comprising between 14 and 40% of cases referred for behavioural help (Borchelt and Voith, 1982; Wright and Nesselrote, 1987; Denenberg et al, 2005). The true prevalence of separation-related behaviours is predicted to be considerably higher than this, partly because owners may be unaware of their dog's reactions when left alone.

Despite the high incidence of separation-related behaviours, they remain difficult to classify, diagnose and treat, in part because the observable behaviours do not appear to map onto a clear biological mechanism. Much of the research into risk factors for separation-related problems has produced contradictory results (Flannigan and Dodman, 2001; McGreevy and Masters, 2008; Mendl et al, 2010). Video observations suggest that the underlying motivations and emotional state vary between dogs and may fluctuate during the period of time dogs are left alone (Lund and Jørgensen, 1999; Palestrini et al, 2010).

Ground-breaking research has, for the first time, begun to develop a diagnostic framework to help identify relevant signs of separation-related problems (de Assis et al, 2020). Comprehensive questionnaires administered to 2757 dog owners were analysed using principal components analysis, producing four primary categories of behaviour (Table 3).

De Assis et al's (2020) work also indicated that many of the supposed signs of hyper-attachment (following the owner closely at home, seeking attention, overly enthusiastic greetings and destruction of owner's personal items) were not useful in distinguishing different forms of separation-related problems.

This research provides a clear framework to consider going forward, and informs the advice that should be given to concerned owners. For example, since 'boredom' separation-related problems occur as a distinct and relatively small cluster, giving advice that focuses on tiring dogs out and providing them with many activities is unlikely to be effective.

Evidence for separation-related problem behaviour changes during the pandemic

A survey of 6000 dog owners (81% of whom reported rarely leaving their homes) in May 2020 found a 41% increase in reports of dogs being clingy or following people around the house during lockdown (Christley et al, 2021). However, the research highlights that this is not necessarily useful when distinguishing different forms of separation-related problems (de Assis et al, 2020).

A linked qualitative analysis of owner experiences indicated that dog owners were enjoying the chance to spend more time at home with their dogs, but that they also appreciated this might cause problems in the future (Holland et al, 2021). Despite this awareness, very few owners reported giving their dogs time alone in preparation for post-lockdown life. Some owners specifically described their dogs as being vocal or distressed either when left alone or when the owner moved to a different room.

Data from the 2020 PDSA PAW report found that 24% of respondents, equivalent to 5% of dog owners ($n=500\,000$), reported that their dog had started to show signs of distress (scratching, destructive behaviour, barking or howling for more than 5 minutes or toileting in the house) when left alone since the start of lockdown. The same report also found that 27% of respondents reported their dog spending more time in quiet areas of the home, suggesting that the dog was seeking refuge from a busier house.

While many owners have been spending more time at home and dog owners report feeling that their pets' behaviour has changed during lockdown, it would be misleading to suggest that all behaviour changes were potential signs of separation-related anxiety. There is little evidence thus far to confirm that there is a canine separation-related anxiety crisis on the horizon, although veterinary teams should continue to be aware of such problems.

Separation-related problems and the veterinary team

Separation-related problems can be seen in dogs of any age and breed, although a formal diagnosis is not usually given before 6 months of age. All puppies will show at least low-level distress when left alone initially, and destructive play behaviour or incomplete housetraining may explain many of the symptoms (Frank et al, 2007; Sherman and Mills, 2008).

First referral practices are in an excellent position to identify potential separation-related problems and offer safe first aid advice, while ruling out common medical differentials. Guidelines to help the veterinary team identify serious problems are provided to support referral to an appropriate clinical animal behaviourist or veterinary behaviourist.

Step 1. Gathering information

Owners may directly request help from the veterinary team with their pet's 'separation anxiety', or express concerns about it becoming a problem in the future. Collecting more information at this stage is essential to establish that it is in fact a separation-related problem, rather than a result of factors such as age-appropriate teething or poor housetraining (Table 4).

Questions around owner reactions will help to identify if there is any history of punishment linked to the behaviours that could potentially cause anxiety.

Table 3. Forms of separation-related problems

Primary form of separation-related problem	% of sample	Working description (de Assis et al, 2020)
A 'Exit frustration'	17.4%	Dogs that display social panic when separated from their owners, and become frustrated when unable to follow them, resulting in redirected frustration
B 'Redirected reactive'	29%	These dogs tend to react agonistically to external events (such as noises or deliveries) and will try to get to the stimuli. Barriers preventing this cause frustration and high levels of arousal which are redirected onto the surroundings. Being separated from owners may also cause social panic
C 'Reactive inhibited'	35.6%	Dogs that react agonistically to external events but, unlike cluster B, do not try to get to the stimuli or redirect frustration. Instead, they are more likely to be anxious or avoidant. For example, the absence of the owner is distressing but the home environment is reassuring
D 'Boredom'	18%	Being left alone becomes unpleasant as a result of lack of stimulation, and can lead these dogs to become reactive to external events over time

Adapted from de Assis et al (2020)

Table 4. Information gathering

Behaviour reported by owner	Additional questions
Chewing inappropriately, destruction of property	<ul style="list-style-type: none"> Is it around the exit point or other objects like the sofa? Does it only or mainly happen when owner is absent or in another room? Confirm age of the dog – could it be teething? Ask 'What do you do when this happens, how do you react when you come back to the dog?'
Vocalising (barking, howling or whining)	<ul style="list-style-type: none"> When does it start (pre-departure?) and how long does it last? Does the dog also pant or pace? Does it only or mainly happen when owner is absent or in another room? Ask 'What do you do when this happens, how do you react when you come back to the dog?'
Urination or defecation	<ul style="list-style-type: none"> Does the dog urinate or defecate inappropriately (this would include in the crate if they are confined, depending on age) when left alone? Is the dog otherwise consistently house trained? Confirm age of the dog – could it be incomplete house training or cognitive decline? Again, ask 'What do you do when this happens, how do you react when you come back to the dog?'

Table 5. Medical differentials for commonly reported separation-related problems

Behaviour reported when left alone or separated from owner	Medical differentials
Chewing inappropriately, destruction of property	<ul style="list-style-type: none"> • Gastrointestinal problems • Discomfort in the teeth or jaws • Discomfort in the teeth or jaws • Normal teething behaviour
Vocalising (barking, howling or whining)	<ul style="list-style-type: none"> • Pain vocalisations • Cognitive dysfunction • Hepatic encephalopathy
Urination or defecation	<ul style="list-style-type: none"> • Diseases causing changes in urination or defecation • Iatrogenic drugs • Incontinence • Urinary infection • Gastrointestinal upset • Cognitive dysfunction • Seizures

Although other behavioural differentials could include generalised anxiety about visiting the vets or being examined, or fear of other dogs or strangers, the veterinary team may observe one or more of the following:

- Excessive reluctance to leave owner (assuming that dogs are taken into the practice for examination without owner)
- In the consult room, the dog spends the majority of time at the exit and/or trying to escape (this could include vocalising, scratching or staring at the door)

- Very strong desire to reunite with owner on return (straining at lead, vocalising, jumping up and licking at owner).

These behaviours could be used as a useful conversation starter and can allow the vet team to offer targeted advice. As an example, a vet could say 'Fluffy seemed very keen to get back to you today – are they spending much time at home alone right now?', to which the owner can respond with information regarding how often they leave their pet.

This gives the vet the opportunity to explore and ask further questions, for example 'Has that just been during the pandemic? Does Fluffy follow you around a lot at home? Is Fluffy ever not allowed to be in the same room, and how does he react?'

Step 2. Ruling out medical causes for behaviour

There are a number of key medical differentials to rule out before giving first aid, self-help or suggesting referral (*Table 5*). All reputable clinical animal behaviourists work on veterinary referral and will routinely ask the referring vet to rule out any medical or physical influences before implementing a behaviour modification plan.

Step 3. Offer advice and first aid to owners

Advice should always focus on the principle of 'do no harm', while bearing in mind that this is a complicated syndrome of behaviours.

Table 6 provides details of safe first aid advice when a problem has been identified, while *Table 7* outlines advice for owners when introducing their dog to being left alone.

Step 4. Referral to a clinical animal behaviourist

If you suspect that a dog may be at risk of developing, or is already struggling with separation-related problems, then the most efficient and cost-effective way to resolve the problems is by working

Table 6. When the dog is already being left home alone

Owner action	First aid advice	Referral
Encourage owners to video the pet when home alone. This can be done with a mobile phone, app, web cam or baby monitor. They should be looking for panting or pacing as well as the more commonly expected vocalising or scratching at the door or window	<ul style="list-style-type: none"> • If external triggers cause barking (pedestrians passing, delivery of post), advise that the dog is kept away from these areas. Net curtains and privacy film can also help as a temporary measure • Consider using family, pet sitters, websites that match owners to volunteers, doggy day care or a dog walker to reduce the time spent home alone 	Clear signs of distress require urgent referral to a clinical animal behaviourist via the Animal Behaviour and Training Council register

Table 7. Preparing a dog to be left home alone

What to suggest	Advice for owners
Create a 'safe haven'	<ul style="list-style-type: none"> • Making our dogs feel safe and comfortable should be priority, to help them to settle and relax. A safe haven is an area in the home where your dog can feel comfortable and relaxed, perhaps a den with a crate or just a new comfy bed • Add an Adaptil plug-in pheromone diffuser and some music, such as classical music or reggae, can help • Make sure the dog has something else to do. Chewing something may help release 'feel good' endorphins and promote relaxation
Start to promote some alone time	<ul style="list-style-type: none"> • Allow the dog to have something nice to eat and leave them alone in a different room to eat it, every now and then • This may involve closing a door behind you or closing a baby gate if the door is too much, as some dogs cope better when they can still see you • Leave the dog only for short periods of time initially (3–5 minutes) and only for the length of time that the tasty treat lasts

collaboratively with a clinical animal behaviourist. There is a wealth of information available over the internet and social media. However, providing owners with laborious protocols or ineffective advice reduces the chance of seeking or complying effectively with interventions in the future (Takeuchi et al, 2000; Blackwell et al, 2016).

The Animal Behaviour and Training Council holds a central register which is independent of membership organisation. Individuals listed as clinical animal behaviourists or certified clinical animal behaviourists would be appropriate, and some have extensive experience of working remotely on separation-related behavioural issues. A full list is available at: <https://abtc.org.uk/practitioners/>

Conflicts of interest

The authors have no conflicts of interest to declare.

Additional resources

<https://behaviourvet.wordpress.com/2013/10/14/left-home-alone-a-welfare-issue-for-dogs/>

<https://www.bluecross.org.uk/pet-advice/home-alone-separation-anxiety-dogs>

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KEY POINTS

- The COVID-19 pandemic has dramatically changed the day-to-day lives of pet dogs, including how much time they spend with owners.
- The percentage of dogs left alone for 3 or more hours decreased from 48% to 5.4% during lockdown. This is likely to increase as restrictions are lifted, raising concerns about an increase in separation-related behaviours.
- Separation-related behaviours cover a wide range of symptoms and underlying emotional causes, so treatment requires careful assessment and individualisation.
- First referral veterinary practices are in a unique position to screen for potential separation-related problems, offer immediate first aid advice, and signpost owners to suitable clinical animal behaviourists.

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