

PRACTICAL EXAMPLES OF REPETITIVE BEHAVIOUR DISORDERS IN DOGS

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CLINICAL BACKGROUND AND APPROACH

Repetitive behaviour problems in dogs are less common than issues such as aggression, separation-related disorders, social fears or noise sensitivity, yet they remain clinically important and are often under-recognised. In a large survey of more than 4,000 dogs, around 16 per cent had displayed some form of repetitive behaviour at some stage in life (Dinwoodie et al., 2019). This figure, while notable, is likely an underestimate. Owners may fail to recognise the behaviour as problematic, perhaps because it is overshadowed by more disruptive conditions such as aggression or separation anxiety, or because it is viewed as a harmless quirk (Burn, 2011). Behaviours such as tail-chasing may even be encouraged as amusing or endearing until they become so frequent or intense that they disrupt the dog's quality of life. By the time a problem is acknowledged, it is often long-standing and deeply ingrained, which makes treatment more challenging (Tiira et al., 2012). This highlights the need for veterinarians to identify these disorders early, before the behaviour and its consequences escalate.

Repetitive behaviours rarely occur in isolation. They frequently coexist with other behavioural issues, including noise sensitivity, anxiety, fear, house-soiling, excessive barking, destructiveness, aggression, and hyperactivity or impulsivity (Salonen et al., 2020). In complex cases, the repetitive behaviour may be only one part of a wider problem and can be overlooked unless specifically investigated. However, repetitive behaviour can be a clear marker of compromised welfare. In zoo and laboratory animal welfare science, there is a strong argument for "zero tolerance" towards such behaviours because of their association with poor quality of life (Mason et al., 2007). The same principle applies to domestic dogs: even if the prevalence is lower than for other behaviour problems, its presence usually indicates that something in the dog's life, health or temperament is out of balance.

Given that repetitive disorders are not neatly classified and may have multiple causes, a structured clinical approach is essential. The five-axis model (Bowen & Fatjó, 2020) offers a useful framework, organising assessment into five categories: functioning, behaviour, health, environment, and traits.

FUNCTIONING

This axis considers the dog's capacity to lead a fulfilling life and meet its role as a companion, both in the home and in wider society. Repetitive behaviours may interfere with normal decision-making, reduce opportunities for other activities, and signal underlying discomfort or distress. Owners' perceptions of quality of life are not always reliable. For example, in a Spanish study, owners whose dogs were left alone for over ten hours a day and walked only once daily still rated their dog's life at nine out of ten (Fatjó & Bowen, 2021). Without a more objective evaluation, the seriousness of the problem can be missed.

BEHAVIOUR

Not all repeated actions are pathological. Practice is essential for learning, and many functional behaviours are repeated during skill development or play (Langen et al., 2011). For instance, tail-chasing in puppies may occur as part of normal play. The challenge is distinguishing between flexible, benign repetition and the rigid, dysfunctional forms that lack a clear goal and resist change. Assessment should consider the form, frequency and duration of the behaviour, its variability, the contexts in which it occurs, triggers, emotional or behavioural changes before and after episodes, the history of its development, and the dog's responsiveness while engaged in it. These details help determine whether the problem is driven primarily by disinhibition, reinforcement, or persistent elicitation by internal or external cues (Mason, 2006).

HEALTH

Physical problems can be a primary cause, a secondary consequence, or a contributing factor in repetitive disorders. Acral lick dermatitis and tail-chasing are classic examples, potentially linked to dermatological or neurological issues such as allergies, infections, neuropathies, spinal disease or seizures (Denerolle et al., 2014; Bardagí et al., 2011; Low, 2003). Pain from orthopaedic or other sources can also reduce inhibitory control, increasing the likelihood of repetitive behaviour (Ji et al., 2010). In some cases, the behaviour itself causes injury or secondary disease, creating a feedback loop. Deciding how far to investigate medically requires balancing thoroughness with avoiding unnecessary or invasive tests. A detailed history, full physical and neurological examination, and baseline blood work are the essential starting points. Further diagnostics are indicated if there is no clear environmental link, if the behaviour is difficult to interrupt, shows little variation, or has a sudden onset in adulthood without prior behavioural history (Tiira et al., 2012).

ENVIRONMENT

Dysfunctional repetitive behaviours are most common in environments that are deficient in some way. While this is well documented in captive wild species, similar principles apply to dogs. An optimal environment offers opportunities to cope with challenges, express natural behaviours, and engage in purposeful activities (Khatib & Morris, 2023; Markowitz et al., 2023). It should provide predictability, control, and reliable access to resources. In contrast, environments that are barren, unpredictable or uncontrollable promote anxiety—when threats cannot be avoided—and frustration—when goals cannot be achieved (Mason, 1991; Duncan & Wood-Gush, 1972). Over time, meaningful behaviours may be displaced by rigid habits triggered by irrelevant cues or arising from self-directed activities such as grooming or pacing. The risk is higher in individuals with naturally large home ranges (Kroshko et al., 2016) or limited opportunities for exercise and social interaction (Sulkama et al., 2022). Early life experiences also play a role: poor rearing conditions or inadequate maternal care can lower resilience and increase susceptibility to repetitive behaviour (Tiira et al., 2012; Guardini et al., 2016).

TRAITS

Stable behavioural traits influence how a dog responds to its environment and life events. Not all dogs in poor conditions develop repetitive disorders, and some develop them despite living in enriched settings. Traits such as anxiety, low frustration tolerance, and high excitability are all linked to a greater risk (Luescher, 2003; Bray et al., 2015). These traits can predispose a dog to emotional states, such as anxiety or frustration, that trigger repetitive behaviour (Gross, 1998). High excitability can also impair emotional regulation and inhibitory control, making it harder for the dog to disengage once the behaviour begins. Research in humans with obsessive-compulsive disorder highlights another relevant trait: a preference for habitual over goal-directed responding (Gillan et al., 2016, 2017). While direct evidence in dogs is limited, some cases show persistence in responding to cues even when the original reward or threat is absent (Protopopova et al., 2014).

TREATMENT AND PREVENTION

Effective management usually integrates all five axes of assessment. The first step is owner education—helping them understand both the welfare implications and the emotional drivers of the problem. Framing the issue as the dog feeling out of control or unable to cope can resonate more strongly than purely neurobiological explanations.

Environmental change is often central to management. This can be approached in three stages:

1. Meeting basic needs for space, resources, and activity.
2. Providing general enrichment to enhance quality of life for any dog.
3. Delivering targeted, therapeutic enrichment tailored to the individual's needs (Rault et al., 2020).

Targeted enrichment might involve structured goal-oriented activities, reducing exposure to stressful triggers, and increasing the dog's control over such exposure. Feeding can illustrate this progression—from providing good quality meals, to using puzzle feeders, to creating varied foraging and training exercises that challenge the dog's problem-solving abilities.

Medication often plays a supportive role, especially for severe cases or when emotional disorders coexist. Selective serotonin reuptake inhibitors, particularly fluoxetine, are first-line choices (Irimajiri et al., 2009), with clomipramine as an alternative (Seksell & Lindeman, 2001). Both act on serotonin pathways implicated in repetitive disorders. In refractory cases, memantine—affecting glutamate signalling—may be useful (Schneider et al., 2009). Clonidine and similar agents can help control arousal and excitability. Importantly, a positive response to medication does not confirm a neurological cause; pharmacological intervention can reduce behaviour even when environmental deprivation is the primary factor.

Behaviour modification forms the third pillar of treatment, often requiring specialist input. Key elements include:

- Addressing underlying emotional problems.
- Managing temperament traits through training.
- Teaching alternative habits to replace the problem behaviour.
- Avoiding common pitfalls such as inadvertent reinforcement or punishment (Hewison & Mills, 2021).

Because repetitive behaviours can limit engagement, behaviour modification is often more effective when combined with medication and targeted enrichment.

CONCLUSION

Repetitive behaviour disorders in dogs require a comprehensive, multi-faceted approach. They are more than curious habits or minor irritations; they are often visible signs of deeper welfare concerns, medical conditions, or temperamental vulnerabilities. By recognising the interplay between environment, health, traits and behaviour, and by intervening early, clinicians can improve both the specific behaviour and the dog's overall well-being. Understanding this broader context provides the foundation for addressing individual cases, where the exact form of the behaviour—whether tail-chasing, flank-sucking, pacing or another pattern—becomes an example of these principles in practice.

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