

Assessing Kennel Dog Welfare

Moriah Hurt, Judith Stella and Candace Croney, Purdue College of Veterinary Medicine

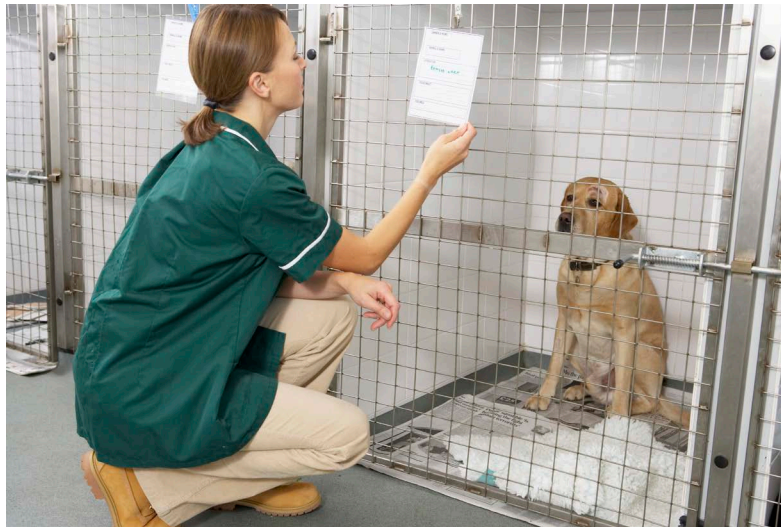
Introduction

For many dogs, time in a kennel often means a brief stay in a veterinary hospital or boarding facility. In breeding kennels and animal shelters, as well as sites where dogs are used for research, time is measured in weeks, even years. Upon entering a kennel environment, dogs may be confronted with stressful situations, such as new environmental events, sounds, or smells, separation from familiar kennel mates or caretakers, as well as confinement in a run or cage. As a result, some dogs may experience fear, boredom, frustration or social isolation, which may result in poor welfare.

On the other hand, it is important to know when dogs are doing well so that positive states can be maintained and promoted. Knowledgeable caretakers can impact the health and well-being of dogs by identifying and attending to signs of poor as well as positive welfare states. Regardless of the causes of a dog's state of being, it is important for those who work with dogs to be aware of key indicators of both positive and negative well-being.

Behavioral indicators of fear and anxiety

Dogs can display a variety of behaviors to indicate a fearful or anxious emotional state. In general, fearful animals do not tend to approach unfamiliar objects or people. Previous experiences, including their history of socialization, can contribute to the level of fear dogs feel



and exhibit in kennel environments. For example, interactions with caretakers during handling or training can either increase or decrease the likelihood of a dog approaching a person. Also, dogs trained using punishment-based techniques interact less with strangers (Rooney and Cowan, 2011).

Regardless as to why dogs may show fear when kept in kennels, recognizing when they are fearful, and then intervening appropriately, can help to protect them and their caretakers. Fearful dogs may respond with an increase in aggression, preventing staff from properly caring for them (Yin, 2009). Thus, caretakers who are able to identify these behaviors, or “read dog body language,” are better able to predict a dog's behavior, make adjustments to their own behavior for safer handling, or modify the environment so that the dog feels safer.

Recognizing fear is also important because wound healing in fearful dogs may be slower, dogs could also have reproductive difficulties (McGrady, 1984; von Borell, 1995) and be viewed as less desirable by potential adopters (Weiss et al., 2012). Key behavioral indicators of fear or anxiety in dogs include low body posture (staying low to the ground), tail tucked between legs, shaking or trembling, panting, paw lifting, lip licking (Beerda et al., 1997), inappropriate urination (healthy, house-trained dogs urinating in undesirable or unusual places) as well as frequent expression of the anal glands in concert with other behavioral indicators of fearfulness.



Another behavior that may result from fear or anxiety is destruction of the dog's enclosure. Destruction of the environment (for example, bedding or kennel walls) may occur as a result of frustration due to inability to perform important, breed-specific behaviors (e.g., terriers that have no means to express digging behaviors) or as a result of a dog attempting to escape or trying to access a social contact, such as a kennel mate or familiar person.

Stereotypies and other abnormal behaviors

Stereotypies are repetitive behaviors that serve no obvious function or purpose and that are consistently repeated in the same pattern. Common stereotypies in dogs include pacing, circling, whirling and "wall bouncing". Other abnormal behaviors that are typically indicative of a poor state of being in dogs include self-biting, polydipsia (abnormal or excessive consumption of water) or polyphagia (excessive or increased appetite), and compulsive staring (Hubrecht, 1995). Some dogs may begin to groom themselves excessively, focusing particularly on their front legs and feet. This can result in development of a lick granuloma, a type of lesion that can be continuously irritated if the behavior is ongoing. In general, stereotypies and other abnormal behaviors should be taken seriously, as they not only indicate failure to cope with the environment but can also result in injuries, such as to the paws from repetitive pacing. Caretakers should record any abnormal occurrences to help identify the presence, development and persistence of these behaviors.

Vocalizations

Vocalizations can help in assessing both positive and negative aspects of kennel dog welfare, but context must be accounted for when interpreting them. For example, during play, dogs can bark, growl, or whine (Simonet et al., 2001), all indicating a positive emotional state. Alternatively, growling in the absence of play may indicate fear and an intention to engage in defensive aggression. Vocalizations such as increased whining or barking may indicate distress from environmental factors, including loud noises, an unfamiliar object or person, or social isolation (Hetts et al., 1992). Physical influences (e.g. pain) can also elicit vocalizations such as yelping or whining.

Excessive barking, which can occur in kennels, may indicate that dogs are experiencing poor welfare states,

such as boredom, frustration or loneliness. Such behavior can negatively impact other dogs by preventing them from resting and by causing noise levels to increase to the point where resident dogs develop hearing loss.

Sickness behaviors

Sickness behaviors refer to a group of non-specific clinical and behavioral signs that correspond to a well-documented physiological and behavioral response to infection (Broom, 2006). When an animal contracts an infectious disease, it will typically show a decrease in activity or appear lethargic, reduce food intake, and might remove itself from the social group. This is an adaptive response to conserve the body's resources to fight disease and promote recovery from infection (Dantzer et al., 2008). Interestingly, these same behaviors have been shown in response to environmental and psychological stressors. These behaviors can be used to identify animals that are not coping well with their environments. In dogs, decreased activity, anorexia (Casey, 2002) and withdrawal are typical examples of sickness behaviors. Because these behaviors may also be indicative of pain, it is important to investigate their causes so that proper care can be provided.

Other Indicators of positive welfare

It is important that dogs experience positive well-being and that caretakers are able to identify and promote these states in addition to attending to signs of poor welfare. A relaxed mouth and ears, soft eyes, weight carried evenly on all four limbs, and a neutral tail posture (i.e. tail is level with the body or hanging down loosely) are all indicators of a comfortable dog that is at ease in its environment (Yin, 2009). Certain behaviors, such as play, are observed only in dogs experiencing positive welfare. Soliciting play with caretakers or other dogs (e.g., via species-typical postures, such as play bows) can therefore be a good indicator that a dog feels comfortable in its environment, particularly if the behavior is reciprocated and play ensues. It may help if dogs have familiar toys from home available for play. Play is more common in younger animals, but adult dogs also play when their needs are met (Boissy et al., 2007) and they are experiencing positive emotional states.

Although it is important to look for behavioral signs of dog welfare, indicators of physical and physiological state are equally important. For example, normal body condition score (neither too thin nor overweight) can

indicate good health. Other physical indicators of good general health include a thick, shiny coat free from dander and excess shedding, firm stool, absence of wounds or lesions, and absence of respiratory symptoms, such as coughing, sneezing, and nasal and ocular discharge. Normal respiratory and heart rates and good immune function also indicate physical well-being in dogs.

Conclusion

Understanding the broad range of indicators of dog well-being is essential for caretakers or anyone in contact with kennel dogs. Awareness of how negative and positive welfare states can manifest can help caretakers better understand how well individual dogs are doing in specific situations. Recording behaviors such as stereotypes, vocalizations, sickness behaviors or play can aid staff in identifying changes in a dog's normal behavior and allow early intervention for dogs that are experiencing distress, pain, illness or injury. However, because dogs are likely to show individual variation in their responses to environments, knowing what is normal for each dog can help caretakers identify changes that reflect differences in their welfare states.

References

- Beerda, B., Schilder, M., Van Hooff, J., de Vries, H., (1997). Manifestations of chronic and acute stress in dogs. *Applied Animal Behavior Science*; 52, 307-319.
- Boissy, A., Manteuffel, G., Jensen, M.B., Moe, R.O., Spruijt, B., Keeling, L.J., Winckler, C., Forkman, B., Dimitrov, I., Langbein, J., Bakken, M., Veissier, I., Aubert, A., (2007). Assessment of positive emotions in animals to improve their welfare. *Physiology & Behavior*; 92, 375-397.
- Broom, D.M., (2006). Behaviour and welfare in relation to pathology. *Applied Animal Behaviour Science*; 97, 73-83.
- Casey, R., (2002). Fear and Stress. In Horwitz, D., Mills, D., Heath, S., (Eds.). *BSAVA Manual: Canine and Feline Behavioural Medicine* (pp. 144-153). Quedgeley, Gloucester: British Small Animal Veterinary Association.
- Dantzer, R., O'Connor, J.C., Freund, G.G., Johnson, R.W., Kelley, K.W., (2008). From inflammation to sickness and depression: when the immune system subjugates the brain. *Neuroscience*; 9, 46-57.
- Hetts, S., Clark, D.J., Calpin, J.P., Arnold, C.E., Mateo, J.M., (1992). Influence of housing conditions on beagle behaviour. *Applied Animal Behaviour Science*; 34, 137-155.
- Hubrecht, R., (1995). The welfare of dogs in human care. In Serpell, J., (Eds.), *The domestic dog: Its evolution, behaviour, and interactions with people* (179-198). Cambridge: Cambridge University Press.
- McGrady, A.V., (1984). Effects of Psychological Stress on Male Reproduction: A Review. *Archives of Andrology*; 13, 1-7.
- Rooney, N.J., Cowan, S., (2011) Training methods and owner-dog interactions: links with dog behavior and learning ability. *Applied Animal Behaviour Science*; 132, 169-177.
- Simonet, P.R., Murphy, M., Lance, A., (2001). *Laughing dog: Vocalizations of domestic dogs during play encounters*. Paper presented at the meeting of Animal Behavior Society, Corvallis, OR.
- von Borell, E., (1995). Neuroendocrine integration of stress and significance of stress for the performance of farm animals. *Applied Animal Behaviour Science*; 44, 219-227.
- Weiss, E., Miller, K., Mohon-Gibbons, H., Vela, C., (2012). Why Did You Choose This Pet? : Adopters and Pet Selection Preferences in Five Animal Shelters in the United States. *Animals*; 2, 144-159.
- Yin, S. (2009). *Low Stress Handling, Restraint and Behavior Modification of Dogs and Cats: Techniques For Developing Patients Who Love Their Visits*. Davis, CA: Cattle Dog Publishing.