

## Behavior wellness concepts for general veterinary practice

Suzanne Hetts, PhD; Marsha L. Heinke, DVM; Daniel Q. Estep, PhD

During the past few years, general practice veterinarians have taken a greater interest in animal behavior than previously. Veterinarians have tremendous opportunities to intervene in behavior problems because most pets surrendered to shelters have been evaluated by a veterinarian at least once in the year prior to their relinquishment.<sup>1</sup> But are these opportunities being translated into practice? Consider the following:

- ▶ Behavior counseling represents < 1% of veterinary visits.
- ▶ Only 25% of veterinarians routinely inquire about behavior.
- ▶ Approximately 15% of veterinarians never inquire about behavior.
- ▶ Only 30% of male veterinarians and 42% of female veterinarians believe that behavior concerns should be given as much attention as clinical disease.
- ▶ Few veterinarians routinely feel confident in knowing how to treat behavior problems.<sup>2</sup>
- ▶ Veterinarians seem to be understandably ambivalent about treating behavior problems or are uncertain how to profitably incorporate behavior-related services into general practice.

### An Emphasis on Problem Resolution

Problem resolution, or the treatment of behavior problems, is the most technically demanding and time intensive of all possible behavior services. If managed correctly, problem resolution appointments can be profitable, but may not be a good fit for all general practice veterinarians. Some will find the additional education required and time-intensive nature of behavior appointments difficult to incorporate into their practices.

The emphasis on problem resolution services may have led some to believe that such services are the only behavior services that can be offered or that owners want; they are not. A variety of behavior wellness services can be invaluable to owners and can be provided by most general practitioners.

Acceptable behavior is vital to a pet's well-being

because an unresolved behavior problem can be a terminal condition.<sup>1</sup> According to the authors of 1 study,<sup>3</sup> behavior problems are the most common reason given by owners for the relinquishment of their dogs to animal shelters and the second most common reason given for the relinquishment of cats to shelters.

Results of surveys of animal owners indicate that those animals with inappropriate elimination, aggression, destructiveness, and overactivity problems are at greater risk of relinquishment to a shelter than those without those problems.<sup>4</sup> Relinquishment to a shelter puts animals at substantial risk for euthanasia; in 1 study,<sup>5</sup> 64% of dogs and cats in shelters were euthanized. It has been argued that lack of knowledge about pet behavior, inaccurate beliefs, and unrealistic owner expectations contribute to these relinquishments.<sup>6</sup>

Too often, a pet's behavior receives attention only when an owner complains of a problem or when it interferes with delivery of medical care. It is much better to prevent behavior problems, rather than try to resolve them.<sup>1</sup> Proactive behavior services such as behavior wellness care are needed, wanted, and within the ability of most veterinarians to offer.

### A Wellness Perspective for Behavior

Just as good health is more than the absence of disease, behavior wellness is more than the absence of behavior problems. We define behavior wellness as the condition or state of normal and acceptable pet conduct that enhances the human-animal bond and the pet's quality of life. Behavior wellness care is the planned attention to a pet's conduct and the active integration of behavior wellness programs into the delivery of pet-related services, including routine veterinary medical care. Behavior wellness programs are protocols, procedures, services, and systems that educate pet owners and professionals about factors that constitute a behaviorally healthy pet; promote behavior wellness through positive proaction, behavior assessments, early intervention, and timely referrals; and decrease unrealistic human expectations and interpretations of pet behavior that lead to neglect, euthanasia, or relinquishment. Although wellness care has been incorporated into areas of veterinary medicine such as geriatric care and annual wellness visits,<sup>7</sup> the wellness perspective has been only recently applied to companion animal behavior.<sup>8</sup>

Although a number of authors have promoted var-

From Animal Behavior Associates Inc, 4994 S Independence Way, Littleton, CO 80123 (Hetts, Estep); and Marsha L. Heinke, CPA Inc, 934 Main St, Grafton, OH 44044 (Heinke).  
Address correspondence to Dr. Hetts.

ious elements of behavioral wellness care, such as problem prevention and pet selection in veterinary practice,<sup>1,2,7,9-16</sup> the details of a comprehensive behavior wellness program have been lacking. The remainder of this article outlines our vision of the protocols, procedures, services, and systems that could comprise a comprehensive behavior wellness program within a general small animal veterinary practice.

### **The Components of a Behavior Wellness Program**

**Promote criteria for behavior wellness**—The cornerstone of a behavior wellness program is the concrete description of a behaviorally healthy pet. Without an ability to recognize a behaviorally healthy animal, there can be no clear goals for achieving behavior health or wellness. Clear criteria for behavior wellness must be defined or owners will, by default, simply go back to only addressing problems when they become serious.

What specifically constitutes normal and acceptable pet conduct referred to in our definition of behavior wellness? Our criteria (**Appendix 1**) are based on years of experience working with companion animals and their owners and scientific research on the behavioral needs of cats and dogs<sup>12,17,18</sup> as well as other animals.<sup>19,20</sup>

Veterinarians should regularly evaluate animal behavior health on the basis of these or their own criteria, just as they do routine medical evaluations. By regularly monitoring behavior health, potential problems will be identified sooner, allowing for earlier interventions. Veterinarians should also educate owners about monitoring their pets' behavior health.

**Promote helpful attitudes and realistic expectations**—Owners frequently have incorrect beliefs and misperceptions of their pets' behavior, such as assuming their pets are motivated by guilt, spite, revenge, or rebelliousness. These beliefs prevent them from developing realistic expectations and must be replaced with more scientifically accurate interpretations.

Veterinarians need to help owners understand that their pets are not purposely trying to anger them with their misbehavior but instead are simply behaving in ways that work for them—owners who understand this concept will become more willing to learn how to promote acceptable behavior.<sup>12</sup> For example, an owner may think her cat is urinating outside of the litterbox to spite her when she leaves the cat alone for the weekend. Among the alternative explanations for this behavior, a likely explanation is that the cat is not using the box because it is not as clean as when the owner is home to clean it. Explaining to the owner that her cat isn't acting out of spite gives the veterinary staff an opportunity to offer other possible reasons for the problem and help the owner view the cat's behavior from a different perspective. When pet owners are educated to understand normal behaviors, their expectations are more realistic, resulting in substantially less pet relinquishment.<sup>6</sup>

**Promote understanding of pet behavioral needs**—For pets to be behaviorally healthy, owners must be

aware of their pets' behavioral needs and be able to provide for them. An understanding of behavioral needs helps owners direct normal species-typical behaviors, such as chewing, into acceptable outlets, rather than vainly trying to suppress them. For example, owners can encourage their dogs to chew appropriate toys by offering a choice of toys and providing the ones that the dog prefers and by smearing the toys with highly palatable foods or stuffing them with treats.<sup>12</sup>

Defining a list of widely accepted behavioral needs for pets, although difficult and controversial, is needed. Our list (**Appendix 2**) is based on scientific studies<sup>17-19</sup> and professional experience and is drawn, in part, from the five freedoms for farm animals<sup>21</sup> and the US guidelines for the care and use of animals in research environments.<sup>22,23</sup> This list implies the assumption that an animal's basic survival needs for food, water, and shelter have been met.

Some explanation of these needs is required. Freedom from unnecessary pain, fear, and threats implies the existence of necessary pain, fear, and threats. These are aversive events that, although they result in short-term decrements in well-being, ultimately result in improvements in the animal's health and well-being. Restraining a sick cat and giving it an injection of antimicrobials will induce immediate pain and fear, but it cures the illness and improves the health and well-being of the cat.

Because the inability to control important aspects of their environment can cause stress and a decrement in well-being,<sup>8</sup> animals should be able to exert a reasonable degree of control over their environment, such as when to move about in their enclosures, when to rest and sleep, and when they can be in the proximity of other animals. Obviously, this should not be taken to such an extreme that the pet becomes annoying, demanding, and exerts excessive control over the owner's behavior.

The need for social contacts, mental stimulation, exercise, and play will vary among individuals. Young animals often require more playtime than older animals. Some animals may require more social contact than others. Veterinarians can identify how well an animal's behavioral needs are being met through regular behavior evaluations that include questions about the pet's lifestyle and routines and the frequency of normal and unwanted behaviors.<sup>13,15</sup> For example, if an evaluation reveals that a young dog is frequently pestering the owners to play, the veterinarian can make recommendations about types and frequencies of interactive play.

**Provide pet selection information**—The most proactive behavior wellness service is to educate owners on pet selection. Although the importance of pet selection counseling cannot be overstated, it is an unfortunate fact that few owners seek this service from their veterinarian. Through promotional materials, veterinarians need to proactively and consistently make owners aware that the veterinary practice is a reliable source for balanced pet selection information when acquisition of a new pet is considered. Good information on pet selection and how to offer pet selection counseling is available from several sources.<sup>10,14,24-26</sup>

**Promote socialization of young and adult animals**—Good socialization experiences, particularly early in life, can help to prevent a variety of behavior problems, such as fear-based problems.<sup>10,12,27</sup> The term socialization can have a variety of meanings. A popular definition is “the process by which an animal develops appropriate social behavior towards conspecifics.”<sup>28</sup> It has also come to mean the development of appropriate social behavior towards humans and other species. It is sometimes used to refer to the acclimatization of animals to new locations, events, and objects.

Veterinary practices should promote and encourage early socialization of companion animals because early experiences can have long-term effects on adult behavior. Socialization to humans and other animals is easiest during a brief period early in life known as the sensitive period.<sup>29</sup> In dogs, this is from 4 to 12 weeks of age<sup>30</sup> and in cats, from 3 to 7 weeks of age.<sup>28</sup> There may also be sensitive periods for the acclimatization process, but the precise timing of these periods is unknown.

These age limits have previously presented an obstacle to widespread veterinary support of early socialization because of concerns about the young animal’s immune status. Owners were advised to limit their pets’ exposure to other animals and public places at least until after the first series of vaccinations. Consequently, some opportunities for early socialization were lost. Recently, veterinary behaviorists and other experts have suggested that veterinarians evaluate the safety of early socialization on a case-by-case basis.<sup>10,31,32</sup> If recent outbreaks of contagious disease have been rare and the percentage of vaccinated animals is high, early socialization may have few associated hazards. In such situations, the risk of a dog dying because of an infectious disease may be far less than the risk of euthanasia because of a behavior problem.<sup>31</sup>

One way to balance the risk of disease with the need for socialization is for the veterinary practice to offer puppy and kitten socialization classes, although formal classes are not the only means by which animals can be socialized. Owners can be instructed on how to provide socialization experiences at home and in a variety of other locations, including the veterinary hospital.<sup>10,12</sup> All new pet owners should be given this information because socialization, although slower, is still possible and valuable for adult animals.

**Promote a plan for positive proactivity**—Previously, 1 of the authors identified 4 of the following 5 principles in a positive proactive plan to promote healthy behaviors.<sup>12</sup> These principles provide a framework for discussing how to prevent problems.

**Elicit and reinforce appropriate behavior (help your pet do the right thing)**

Owners need specific instructions on how they can proactively plan to help their pet behave appropriately, rather than waiting and reacting after their pet has misbehaved. For example, instead of an owner scolding her dog if it isn’t friendly to visitors, she should have a tidbit ready for the visitor to give to the dog to help induce the dog to be friendly.

**Prevent or minimize inappropriate behavior (don’t let bad habits develop)**

Supervision, environmental management, and consequences of behavior should be structured in such a way as to make it difficult for problem behaviors to occur. For example, a crucial part of housetraining is to prevent a puppy from developing undesirable surface or location preferences for elimination, such as the dining room carpet. This requires constant supervision or appropriate confinement so the puppy doesn’t have a chance to develop such a preference.

**Provide for the pet’s developmental and behavioral needs**

Animals perform certain actions to satisfy their needs (Appendix 2). Veterinarians should teach owners how to provide for those needs in ways that support desirable behaviors. Owners can be taught about general behavioral needs of animals on the basis of what is known about the normal behavior of the animal, such as cats needing to scratch objects. Owners can learn the preferences of their animals by giving the animal choices among different items or situations. For example, most cats prefer a scratching post that is oriented vertically, although some prefer a horizontal scratching area. Owners can discover the specific preferences of their cat by giving the cat choices among vertical and horizontal scratching posts presented at the same time.

**Use the take-away method to discourage inappropriate behavior**

Rather than trying to stop an unwanted behavior by delivering an aversive consequence, veterinarians can tell owners how to take away something the pet wants. This is similar to taking away a child’s telephone privileges as a consequence for bad grades. If a puppy is playing too rough, rather than yelling, pushing, or punishing the puppy, the owner can just walk away and ignore the puppy. The puppy will learn that rough play causes loss of the chance to play at all. This is known as negative punishment<sup>33</sup> (positive punishment is delivery of an aversive consequence).

**Minimize discipline and use it correctly when necessary (minimize positive punishment)**

Rather than positive punishment being the first response to unwanted behavior, it should generally be the last. Effective and humane use of positive punishment requires adherence to a number of criteria that pet owners are not aware of and often cannot meet.<sup>33,34</sup> For example, to be effective in stopping unwanted behavior, punishment must be delivered immediately and consistently and be intense enough to stop the behavior but not cause pain, fear, or aggression. It is unlikely that an owner can consistently run outside to effectively discipline a barking dog in a timely fashion. An antibark collar that delivers a spray of citronella oil is better able to meet the immediacy and consistency requirements and more likely to be sufficiently unpleasant to stop the barking than the owner yelling at the dog. A better solution would be to identify the causes of the barking and remove the dog from them or teach the dog another more acceptable response in that particular situation. At a minimum, positive proactive

plans for the behaviors and situations (Appendix 3) should be given to owners.

**Make assessment of behavior health as much of a priority as assessment of medical health**—Making the assessment of behavior health a routine part of veterinary practice will require a shift in perspective for many veterinarians. One study found that only 11% of veterinarians believed it was their responsibility to initiate discussions about behavior,<sup>2</sup> although most pet owners will not initiate these discussions until their pet's behavior has become a problem for them. Providing wellness care inherently means the initiative falls to the veterinary team. To do this, the veterinary team is urged to consistently question owners at every nonemergency appointment about the behavior of their animals.<sup>13,15</sup>

Experience indicates that behavior patterns that are warning signs of more severe problems are often present long before the pet is evaluated by a veterinarian for a behavior problem. Because owners do not recognize the importance of these behaviors, they might not mention them. Examples of such warning signs are a dog that refuses to readily give up an object such as a toy or a cat that doesn't scratch in the litter in the litterbox. When owners and staff understand normal behavior and its development, these deviations are readily recognizable as precursors to more serious behavior problems.

Owners should be interviewed regarding certain topics (Appendix 4). Examples of questionnaires are available elsewhere.<sup>13,15,25</sup> Veterinary staff can be taught to skillfully interview pet owners using nonjudgmental communication styles that put owners at ease.<sup>35</sup> How questions are phrased is critically important. Questions such as "Do you have any concerns about your pet's behavior?" or "Do you have any questions about housetraining?" are unlikely to be productive because they can be answered yes or no. Open-ended questions of the type "What does your pet do when...?" and obtaining descriptions of owners' training and management procedures ("Describe your housetraining procedures for me.") and of the pet's daily routine ("Where does your pet spend most of its time?") will provide more useful information.<sup>12,13</sup>

Providing behavior wellness care means that concerns, warning signs, and problems are addressed when they are identified, rather than being ignored or taking a wait-and-see approach. Whatever behavior care the practice provides must be of the same high quality as the medical care that staff are trained to deliver. Identification of each problem or warning sign should be followed with a specific recommendation.

Recommendations could include additional medical workups, an in-house behavior educational appointment, or a referral for professional help. Once a behavior recommendation has been made, a staff member should be assigned to follow-up with the owner, similar to designated follow-ups after medical or surgical care.

**Make the veterinary hospital a behaviorally friendly place for animals and owners**—A veterinary practice that promotes behavior wellness care and subscribes to the notions of mental well-being and comfort for their

patients<sup>8,36</sup> must strive to make the hospital itself a behaviorally friendly place.<sup>37</sup> The practice's credibility and image will suffer if it isn't practicing what it preaches. The staff should apply knowledge of animal behavior to reduce animal stress and make visits to the veterinary hospital as pleasant as possible for animals and owners. The less stressed the animal, the safer it is for staff to handle. When pets have unpleasant experiences at the hospital, they will become more difficult to handle over time, which requires more staff time. Owners may be less likely to bring their pets to the hospital for care, and the veterinary staff cannot always provide quality medical care to animals that cannot be easily and safely handled.

Behavior wellness care addresses staff interactions with animals as well as hospital configuration. When handling animals, the veterinary team should be acutely aware that they are modeling to owners the practice's philosophy of how pets should be treated. Behavior wellness care enhances a pet's well-being and is based on eliciting and reinforcing desirable behaviors rather than punishing undesirable ones or intimidating a pet into submission. Generous use of toys and tidbits, when possible, helps pets associate pleasant experiences with staff and can reduce stress and fear.

At the core of a behaviorally friendly practice is a staff that can accurately observe and interpret species-specific communication signals and respond in ways that lower animal stress and arousal and promote pet and human safety. Because employees do not innately know how to approach, handle, and restrain pets, the practice must commit to formal staff education, as well as ongoing, hands-on training.

A recent high-profile legal case in which a veterinarian was accused of animal cruelty has brought the issue of animal handling and restraint to the attention of the veterinary profession and the public.<sup>38</sup> Veterinary practices should establish and adhere to clear guidelines for how animals are handled, on the basis of the principles of humane training<sup>39</sup> or guidelines suggested by others for handling, restraining, and disciplining animals in veterinary hospitals.<sup>40</sup> Additions to these guidelines should include descriptions and examples of alternatives to physical restraint. Staff should be trained to identify whether a situation warrants a substantial amount of physical restraint and how it should be humanely applied while keeping the animal and the staff safe.

When difficult-to-handle pets are identified, veterinary staff should give owners specific step-by-step instructions to help them gently and gradually acclimate their pets to handling, mild restraint, and unfamiliar places.<sup>10</sup> Socialization visits to the hospital that only entail food treats and pleasant experiences could be scheduled. Fractious animals can also be referred to a behavior consultant.

The design of the physical environment is an often overlooked aspect of creating a behaviorally friendly veterinary hospital. Hospital staff should consider what the pet sees and experiences from the animal's point of view. When possible, construction and remodeling plans should strive to create environments that can reduce stress for animals. Separate entrances for dogs and cats and a cubicle layout in the reception area that isolates animals visually can reduce animal interac-

tions that may be stressful. Sound-deadening materials to reduce noise and movement patterns designed to reduce human traffic in animal-holding and treatment areas can reduce stress and fear in animals.

When physical hospital redesign may not be possible, animal handling policies, hospital activities, and traffic patterns should be evaluated with the goal of decreasing animal stress. For example, anxious or threatening animals should never be made to wait in crowded reception areas. These animals could wait in cars (weather permitting) or be taken immediately to an examination room or other quiet holding area. Towels or sheets can be draped over the front of cages of fearful animals to reduce their reactivity.

**Provide timely referrals when owners need expert behavior counseling**—It may not be feasible or desirable for every practice to offer a full range of wellness care services or problem resolution services. Veterinarians should critically assess their own knowledge, experience, and interest in behavior and proactively decide when it is in everyone's best interest to refer. In fact, a veterinarian has a duty to refer when the owner's and animal's needs require expertise beyond what the veterinarian is able to provide. A variety of animal professionals, including behavior consultants, dog trainers, and other trained lay people, can offer a range of behavior services. Veterinarians should establish clear procedures for how, when, and to whom pet owners are referred for behavior consultations.

**How to refer**—Make referrals to behavior consultants via professional standards and conduct used for medical referrals. Off-handed referral of owners to behavior consultants ("Call and see what they can do for you") trivializes the referral and the complex nature of resolving behavior problems.

Stating that a pet truly needs a particular procedure rather than using weaker terms such as "this should be done" or "we recommend" results in better compliance.<sup>16</sup> Because behavior problems are often life-threatening conditions, veterinarians should be as adamant about treating them as they would be if a pet had a life-threatening illness or injury.

Practices should establish protocols for who is authorized to make a behavior referral and under what conditions. As an example, front office staff should schedule an office visit for an owner who calls about a cat with an elimination problem, rather than making a referral directly to a consultant. Otherwise, underlying medical problems may be overlooked.

An owner's experience with a referral resource will reflect directly back on the veterinary practice. It behooves veterinarians to ensure that the behavior consultant or trainer is qualified, knowledgeable, and provides good service congruent with the practice's philosophy. The education, experience, and competence of behavior consultants and dog trainers can vary dramatically. We define a behavior consultant as anyone who offers behavioral services. Trainers and consultants may or may not have professional training. Some behavior consultants are professionally certified applied animal or veterinary behaviorists.

Information about the requirements for certifica-

tion and lists of those certified by the Animal Behavior Society and the American College of Veterinary Behavior can be found on Web sites (**Appendix 5**), as can similar information regarding dog trainers certified by the Certification Council for Pet Dog Trainers. Referral consultants should be interviewed to ascertain their professional background. Detailed questions about their methods and recommended equipment should be asked. It is important that a staff member visits an obedience class or attends a consulting session prior to approving a referral resource. Guidelines for evaluating dog trainers and behavior consultants have been published elsewhere.<sup>12,13,16</sup> Dog trainers and behavior consultants to whom veterinary hospitals refer should adhere to humane training guidelines.<sup>39,40</sup>

After a medical referral, veterinarians are accustomed to follow-up with owners with either a telephone or mail contact. Similar procedures should be adopted after a behavior referral. Repetitive contact with owners positively influences retention as well as owner compliance.<sup>41</sup>

If an owner declines to accept the veterinarian's recommendations for behavior wellness care or a referral, the owner should sign a refused-waived treatment form for inclusion in the pet's medical record. Such documentation emphasizes the importance of behavior care and may help protect the veterinarian from liability in aggression cases.

## **Requirements For Integrating Behavior Wellness Programs Into General Veterinary Practice**

**Changes in attitudes**—The first essential requirement is attitudinal change, both at the individual level and throughout the profession as a whole. Among the attitudes that will facilitate behavior wellness care are the following:

- Willingness to acknowledge that it is the veterinarian's responsibility to initiate discussions about pet behavior, not the owner's.
- Willingness to broaden perspective about the scope of services that can be beneficial for veterinarians to offer.
- Willingness to partner and develop working relationships with other animal care professionals to cooperatively deliver behavior wellness care.
- Willingness to provide total health and wellness care—not just treat sick animals.<sup>7</sup>
- Willingness to adopt a family practice philosophy. Veterinarians work with family units—they are not just treating pets.<sup>7</sup>

**Choosing a delivery system**—Education of owners can be offered in a number of different ways. Charges for behavior wellness services can be bundled with vaccination visits. Information can be delivered by trained staff through single-topic classes (eg, a class on how to setup cat litterboxes) with attendance incentives, through general pet-parenting classes that deal with a number of topics, or through puppy and kitten socialization classes.<sup>16,24,25,42</sup> Puppy and kitten classes cannot only be a forum to educate owners, but to also acclimate animals and bond owners to the veterinary hospital.<sup>16,24,31</sup>

Behavior wellness services should not be focused exclusively at new puppy and kitten owners. New owners of dogs and cats between 6 and 24 months of age may be most in need of behavior wellness services because the bond is most fragile in the first 6 months of ownership and pets between these ages are at the greatest risk of surrender.<sup>43</sup>

Veterinarians can recommend books, articles, videotapes, DVDs, or audiotapes on pet behavior and training. Veterinary staff must carefully review recommended materials because the quality of these resources is highly variable. Selling these items at the practice may increase owner compliance. Another option is behavior wellness telecourses for pet owners.<sup>44,45</sup> These are seminars or lectures given to groups of owners by teleconference. By participating from the comfort of their own homes, pet owners are better able to devote their full attention to the content. Veterinarians can refer owners to the service or subscribe themselves, allowing them to prepurchase quantity registrations for a reduced per person fee. Veterinarians can choose to pass all or some of the cost along to owners, or the telecourses can become a new profit center by charging owners the full registration fee.

**Education and training of veterinary professionals**—Staff members who participate in the delivery of behavior wellness must give up-to-date, scientifically accurate information. These people must have adequate training in basic ethology and animal learning with an applied focus, as should the veterinarian assigned oversight of a behavior wellness program. Scientific knowledge must replace nonscientific interpretations of behavior and information based solely on personal experience and beliefs. Nothing causes a practice to lose credibility faster than when owners receive inconsistent or incorrect information from its staff. Obtaining training is not as easy as it should be. Most veterinary colleges have yet to incorporate training in the basics of animal behavior into their curricula.<sup>1</sup> There are, however, many training opportunities through professional continuing education. Continuing education opportunities focused on implementation of behavior wellness services, including implementing puppy classes in the veterinary clinic, are now available.<sup>46,47</sup>

Veterinary professionals should consider continuing education opportunities other than, or in addition to, those traditionally provided within the field. National humane organizations, animal control associations, and dog training associations conduct training conferences that would be beneficial to veterinary professionals committed to adding behavior wellness programs.

**The use of a team approach**—Behavior wellness care encourages the participation of all members of the veterinary health care team. Different members of the team can be trained to provide various aspects of behavior wellness care.<sup>16,25,48</sup> Hospital receptionists can provide an early warning system by identifying fractious animals as they enter the clinic. Their responsibilities should include the management of owner and animal traffic to lower stress and arousal. Telephone receptionists should be able to identify owner comments and complaints that suggest behavior wellness care is needed.

Veterinary technicians can play an integral role in providing behavior wellness care.<sup>49</sup> They can be trained to conduct behavior assessments, provide nonmedical interventions such as providing puppy and kitten classes, and provide owner education on a variety of topics such as housetraining or litterboxes. The goals of The Society of Veterinary Behavior Technicians are consistent with many of the goals described in this article,<sup>50</sup> making this organization an invaluable resource. Information about this organization is available (Appendix 5).

With other members of the team providing a variety of behavior services, veterinarians can focus their time on the activities that they enjoy and feel competent with. These might include some wellness activities or activities that require their special medical skills and training, such as evaluating medical reasons for behavior changes, prescribing medications, deciding when an animal should be referred, or conducting problem resolution consultations. The value of the behavior wellness approach is that it offers veterinarians the flexibility to choose whether or not to provide treatment for problems, while still actively integrating behavior services into their practices.

One of the findings of a study of veterinarians and veterinary medical services in the United States was that often veterinarians spend too much time engaging in practice duties that could be performed by other staff members.<sup>51,52</sup> Results of the study suggest that practices that fully utilize technicians and assistants are more likely to be financially healthy than those with less utilization.<sup>52</sup> Having a veterinarian perform duties that could be assigned to other hospital employees reduces the earning potential of the veterinarian. Practice revenues as well as personal revenues are affected. By the use of a team approach, veterinary practices can make behavior wellness services profitable.<sup>16,25,48</sup>

Providing behavior wellness care is no longer an option, but a necessity. Too many pets lose their lives or are neglected because of behavior problems. Too much misinformation and harmful information about pet behavior reaches pet owners from a variety of sources, including veterinary hospitals. When the quality of the human-pet bond is compromised, veterinarians miss opportunities to provide better health care and make their practices more profitable. The benefits of wellness programs in general have been proposed,<sup>7</sup> and they are directly applicable to behavior wellness concepts:

- Animals consistently receive better health care.
- Owners encounter fewer crisis episodes.
- Companion animals enjoy a healthier, longer life that translates into more contact with the practice.
- More effective use is made of staff and facilities.
- Staff members have pride and enjoyment in their work.
- Pet owners have increased educational contacts with the practice.
- Practices can increase their income.

It is within the capabilities and realm of responsibility of every veterinarian and veterinary technician to

obtain a level of behavioral expertise sufficient to deliver some behavior wellness care in general veterinary practices. Providing behavior wellness care serves the best interests of veterinary medicine, individual veterinary practices, pet owners, and most importantly, companion animals.

## Appendix 1

Criteria for behaviorally healthy cats and dogs.

- Affectionate, without being needy.
- Friendly toward or at least tolerant of people, including children, and other members of their own species.
- Enjoy or at least tolerate normal, everyday handling and interactions.
- Eliminate only in acceptable areas.
- Not overly fearful of normal, everyday events or new events.
- Adapt to change with minimal problems.
- Play well with others by not becoming uncontrollable or rough.
- Not a nuisance or danger to the community.
- Can be left alone for reasonable time periods without becoming anxious or panicked.
- Readily relinquish control of space, food, toys, and other objects.
- Vocalize (bark or meow) when appropriate, but not to excess.

In addition, behaviorally healthy dogs:

- Reliably respond when told to sit, down, come, or stay.

In addition, behaviorally healthy cats:

- Scratch only items provided for that purpose.

## Appendix 2

Behavioral needs of companion animals.

- Provision of a safe, comfortable place to rest and sleep.
- Freedom from or the ability to escape from unnecessary pain, fear, threats, and discomfort.
- Ability to control some aspects of the environment.
- Opportunities to express typical species behaviors such as chewing, scratching, and elimination.
- Opportunities for appropriate exercise and play.
- Opportunities for mental stimulation.
- Opportunities for pleasant social contact with conspecifics and humans to which the animals have been socialized.

## Appendix 3

Behaviors and situations for which positive proactive plans should be given to owners.

- Elimination behavior.
- Play behaviors.
- Normal destructive behaviors (because of play, investigation, chewing, or teething).
- Barking.
- Introducing new pets to family, especially children and resident pets.
- Acclimating dogs to being left alone.
- Acclimating pets to being handled and examined.

## Appendix 4

Behaviors and situations that should be routinely evaluated in companion animals.

- Impending family lifestyle changes, such as a move or a new baby, that may put pets at risk for problems.
- The pet's daily routine, lifestyle, and whether its behavioral needs are being met.
- Changes in the pet's routines, such as spending more time out doors or alone, that indicate the human-animal bond may be at risk.
- The pet's behavior at home to identify existing problems and behavior patterns that may be early warning signs of problems that may develop.
- The pet's behavior at the veterinary hospital and discussion of any behaviors of concern, such as fear, threats, or aggression.

## Appendix 5

Web sites of organizations that certify behavior consultants and dog trainers and a veterinary behavior technician organization.

- American College of Veterinary Behavior.  
Available at: [www.veterinarybehaviorists.org](http://www.veterinarybehaviorists.org).
- Animal Behavior Society.  
Available at: [www.animalbehavior.org](http://www.animalbehavior.org).
- Certification Council for Pet Dog Trainers.  
Available at: [www.ccpdt.org](http://www.ccpdt.org).
- Association of Pet Dog Trainers.  
Available at: [www.apdt.com](http://www.apdt.com).
- Society of Veterinary Behavior Technicians.  
Available at: [www.svbt.org](http://www.svbt.org).

## References

1. Scarlett JM, Salman MD, New JG, et al. The role of veterinary practitioners in reducing dog and cat relinquishments and euthanasias. *J Am Vet Med Assoc* 2002;220:306–311.
2. Patronek GJ, Dodman NH. Attitudes, procedures, and delivery of behavior services by veterinarians in small animal practice. *J Am Vet Med Assoc* 1999;215:1606–1611.
3. Salman MD, Hutchinson J, Ruch-Gallie R, et al. Behavioral reasons for relinquishment of dogs and cats to 12 shelters. *J Appl Anim Welfare Sci* 2000;3:93–106.
4. Patronek GJ, Glickman LT, Beck AM, et al. Risk factors for relinquishment of dogs to an animal shelter. *J Am Vet Med Assoc* 1996;209:572–581.
5. Zawistowski S, Morris J, Salman MD, et al. Population dynamics, overpopulation, and the welfare of companion animals: new insights on old and new data. *J Appl Anim Welfare Sci* 1998;1:193–206.
6. Duxbury MM, Jackson JA, Line SW, et al. Evaluation of association between retention in the home and attendance at puppy socialization classes. *J Am Vet Med Assoc* 2003;223:61–66.
7. Jevring C, Catanzaro TE. *Healthcare of the well pet*. Philadelphia: WB Saunders Co, 1999.
8. McMillan FD. Development of a mental wellness program for animals. *J Am Vet Med Assoc* 2002;220:965–972.
9. Burghardt WF. Behavioral medicine as a part of a comprehensive small animal medical program. *Vet Clin North Am Small Anim Pract* 1991;21:343–352.
10. Overall KL. *Clinical behavioral medicine for small animals*. St Louis: Mosby Year Book Inc, 1997.
11. Seksel K. Puppy socialization classes. *Vet Clin North Am Small Anim Pract* 1997;27:465–477.
12. Hetts S. *Pet behavior protocols: what to say, what to do, when to refer*. Lakewood, Colo: AAHA Press, 1999.
13. Hetts S. Behavior Rx. *Trends Magazine* 2000;16:16–20.
14. Overall KL. Early intervention and prevention of behavior problems. Step 1: the owner and pet must match. *Vet Forum* 2001; May:42–47.
15. Overall KL. Early intervention and prevention of behavior problems. Step 2: routine screening unveils pet misbehaviors. *Vet Forum* 2001; August:42–46.
16. Catanzaro TE. *Promoting the human-animal bond in veterinary practice*. Ames, Iowa: Iowa State University Press, 2001.
17. Rochlitz I. Feline welfare issues. In: Turner DC, Bateson P, eds. *The domestic cat: the biology of its behaviour*. 2nd ed. New York: Cambridge University Press, 2000;208–226.
18. Hubrecht R. The welfare of dogs in human care. In: Serpell J, ed. *The domestic dog: its evolution, behaviour, and interactions with people*. New York: Cambridge University Press, 1995;180–198.
19. Poole TB. The nature and evolution of behavioural needs in mammals. *Anim Welfare* 1992;1:203–220.
20. Appleby MC, Hughes BO. *Animal welfare*. New York: CAB International, 1997.
21. Farm Animal Welfare Council. FAWC updates the five freedoms. *Vet Rec* 1992;131:357.
22. National Research Council. *Guide for the care and use of laboratory animals*. Washington, DC: National Academy Press, 1994.
23. National Research Council. *Laboratory animal management: dogs*. Washington, DC: National Academy Press, 1996.

24. Heath S. Preventing canine and feline behaviour problems. In: Jevring C, Catanzaro T, eds. *Healthcare of the well pet*. Philadelphia: WB Saunders Co, 1999;127-152.

25. Overall KL. Resolve common behavior problems by offering training advice to clients. *DVM Newsmagazine* 2002;June:12-15.

26. Committee on the Human-Animal Bond. *The veterinarian's way of selecting a proper pet*. Schaumburg, Ill: American Veterinary Medical Association, 1987.

27. Estep DQ. The ontogeny of behavior. In: Voith VL, Borchelt PL, eds. *Readings in companion animal behavior*. Trenton, NJ: Veterinary Learning Systems, 1996;19-31.

28. Karsh EB, Turner DC. The human-cat relationship. In: Turner DC, Bateson P, eds. *The domestic cat: the biology of its behaviour*. New York: Cambridge University Press, 1988;159-177.

29. Bateson P. How do sensitive periods arise and what are they for? *Anim Behav* 1979;27:470-486.

30. Scott JP, Fuller JL. *Genetics and the social behavior of the dog*. Chicago, Ill: University of Chicago Press, 1965.

31. Anderson RK, Line S, Jackson J. *Early learning for puppies—a program guide for humane societies and veterinary clinics*. Richmond, Va: Premier Pet Products, 1999.

32. Ford RB. Individualized assessment offers insight to patient's risk exposure to disease. *DVM Newsmagazine* 2003; July(suppl):36-38.

33. Reid PJ. *Excel-erated learning. Explaining in plain English how dogs learn and how best to teach them*. Oakland, Calif: James & Kenneth Publishers, 1998.

34. Borchelt PL, Voith VL. Punishment. In: Voith VL, Borchelt PL, eds. *Readings in companion animal behavior*. Trenton, NJ: Veterinary Learning Systems, 1996;72-80.

35. Lagoni L, Durrance D. *Connecting with clients*. Lakewood, Colo: AAHA Press, 1998.

36. McMillan FD. Comfort as the primary goal in veterinary medical practice. *J Am Vet Med Assoc* 1998;212:1370-1374.

37. Heinke ML, Hetts S. Behavior wellness programs can create safe, compassionate environment. *DVM Newsmagazine* 2002;May: 32-35.

38. Nolen RS. New Jersey veterinarian acquitted of cruelty conviction. *J Am Vet Med Assoc* 2000;216:1888, 1894.

39. *Professional standards for dog trainers: effective, humane principles*. Renton, Wash: Delta Society, 2001.

40. Patronek GJ, Lacroix CA. Developing an ethic for the handling, restraint, and discipline of companion animals in veterinary practice. *J Am Vet Med Assoc* 2001;218:514-517.

41. Heinke ML, McCarthy JB. *Practice made perfect*. Lakewood, Colo: AAHA Press, 2001.

42. Seksel K. Kitty kindly, in *Proceedings*. 1st Int Conf Vet Behav Med 1997;28-30.

43. New JG, Salman MD, Scarlett JM, et al. Shelter relinquishment: characteristics of shelter-relinquished animals and their owners compared with animals and their owners in U.S. pet-owning households. *J Appl Anim Welfare Sci* 2000;3:179-201.

44. Hetts S, Estep DQ. Just behave! How to get your dog to do what you want (Telecourse). Available at: [www.AnimalBehaviorAssociates.com](http://www.AnimalBehaviorAssociates.com). Accessed Oct 15, 2003.

45. Hetts S, Estep DQ. What your cat wants you to know (Telecourse). Available at: [www.AnimalBehaviorAssociates.com](http://www.AnimalBehaviorAssociates.com). Accessed Oct 15, 2003.

46. Hetts S, Estep DQ. *Canine behavior: I. Body postures (Videotape)*. Denton, Tex: Animal Care Training Inc, 1999.

47. Hetts S, Estep DQ. *Canine Behavior II. The behaviorally healthy dog (Videotape)*. Denton, Tex: Animal Care Training Inc, 1999.

48. Tripp R. Behavior is a team effort. *Vet Econ* 1997;December: 40-43.

49. Hetts S. *Animal behavior*. In: McCurnin DM, Bassett JM, eds. *Clinical textbook for veterinary technicians*. 5th ed. Philadelphia: WB Saunders Co, 2002;315-329.

50. Price G. President's message. *Newsletter Soc Vet Behav Tech* 2001;9:1.

51. McCurnin DM. Promoting greater efficiency in the delivery of veterinary services. *J Am Vet Med Assoc* 2001;219:307-308.

52. Brown JP, Silverman JD. The current and future market for veterinarians and veterinary medical services in the United States. *J Am Vet Med Assoc* 1999;215:161-183.





**Interceptor<sup>®</sup>**  
**Flavor Tabs<sup>®</sup> (milbemycin oxime)**  
*Care without compromise™*

**Recommended Dosage Schedule for Cats**

Body Weight	Flavor Tab
1.5 to 6 lbs.	One tablet (5.75 mg)
6.1-12 lbs.	One tablet (11.5 mg)
12.1-25 lbs.	One tablet (23.0 mg)

Cats over 25 lbs. are provided the appropriate combination of tablets.

**Administration:**

INTERCEPTOR Flavor Tabs are palatable and most often will be consumed by the dog or cat when offered by the owner. As an alternative, the dual-purpose tablet may be offered in food or administered as other tablet medications. Watch the dog or cat closely following dosing to be sure the entire dose has been consumed. If it is not entirely consumed, redose once with the full recommended dose as soon as possible.

INTERCEPTOR Flavor Tabs must be administered monthly, preferably on the same date each month. The first dose should be administered within one month of the dog or cat's first exposure to mosquitoes and monthly thereafter until the end of the mosquito season. If a dose is missed and a 30-day interval between dosing is exceeded, administer INTERCEPTOR Flavor Tabs immediately and resume the monthly dosing schedule.

It is recommended that dogs and cats be tested for existing heartworm infection prior to starting treatment with Flavor Tabs (See Precautions).

If INTERCEPTOR Flavor Tabs replaces diethylcarbamazine (DEC) for heartworm prevention, the first dose must be given within 30 days after the last dose of DEC.

**Palatability:**

Palatability trials conducted in 244 dogs from 10 different U.S. veterinary practices demonstrated that INTERCEPTOR Flavor Tabs were willingly accepted from the owner by over 95% of dogs.

Palatability trials conducted in 72 cats demonstrated that INTERCEPTOR Flavor Tabs for Cats were successfully dosed by the owner in 72% of cats.

**Efficacy:**

Dogs: INTERCEPTOR Flavor Tabs eliminate the tissue stage of heartworm larvae and the adult stage of hookworm (*Ancylostoma caninum*), roundworms (*Toxocara canis*, *Toxascaris leonina*) and whipworm (*Trichuris vulpis*) infestations when administered orally according to the recommended dosage schedule.

Cats: INTERCEPTOR Flavor Tabs for Cats eliminate the tissue stage of heartworm larvae and hookworm (*Ancylostoma tubaeforme*) and roundworm (*Toxocara cati*) infestations when administered orally according to the recommended dosage schedule.

**Precautions:**

Dogs: Do not use in puppies less than four weeks of age and less than two pounds of body weight. Prior to initiation of the INTERCEPTOR Flavor Tabs treatment program, dogs should be tested for existing heartworm infections. Mild, transient hypersensitivity reactions manifested as labored respiration, vomiting, salivation and lethargy may occur after treatment of dogs carrying a high number of circulating microfilariae.

Cats: Do not use in kittens less than six weeks of age or less than 1.5 lbs. body weight. Safety in heartworm positive cats has not been established. Safety in breeding, pregnant, and lactating queens and breeding toms has not been established.

**Adverse Reactions:**

The following adverse reactions have been reported following the use of INTERCEPTOR in dogs: depression/lethargy, vomiting, ataxia, anorexia, diarrhea, convulsions, weakness and hypersalivation.

**Safety:**

In well-controlled clinical field studies 786 dogs and 141 cats completed treatment with milbemycin oxime. Milbemycin oxime was used safely in dogs and cats receiving frequently used veterinary products such as vaccines, anthelmintics, antibiotics, steroids, flea collars, shampoos and dips, and in cats receiving anesthetics.

Studies in heartworm-infected dogs demonstrated mild, transient hypersensitivity reactions in dogs with high microfilaria counts. Safety studies in pregnant dogs given an exaggerated dosing regimen, resulted in measurable concentrations of the drug in milk. Puppies nursing these females which received exaggerated dosing regimens demonstrated milbemycin-related effects. Subsequent studies included using 3X daily from mating to one week before weaning and demonstrated no effects on the pregnant females or their litters. A second study where pregnant females were dosed once at 3X the monthly use rate either before, on the day of or shortly after whelping resulted in no effects on the puppies.

Some nursing puppies, at 2, 4, and 6 weeks of age, given greatly exaggerated oral INTERCEPTOR doses (9.6 mg/kg = 19X) exhibited signs typified by tremors, vocalization and ataxia. These effects were all transient and puppies returned to normal within 24 to 48 hours. No effects were observed in puppies given the recommended dose of INTERCEPTOR (0.5 mg/kg). This product has not been tested in dogs less than 1 kg weight.

A rising-dose safety study conducted in roughcoated collies, manifested a clinical reaction consisting of ataxia, pruritus and periodic recumbency, in one of fourteen dogs treated with milbemycin oxime at 12.5 mg/kg (25X monthly use rate). No adverse reactions were observed in any of the collies treated with a rising-dose regimen up through the 10.0 mg/kg (20X monthly use rate) dose.

Safety studies were conducted in young cats and kittens and doses of 1X, 3X and 5X the minimum recommended dose of 2.0 mg/kg demonstrated no drug-related effects. Tolerability studies at exaggerated doses of 10X also demonstrated no drug-related adverse effects in kittens and young adult cats.

**How Supplied:**

INTERCEPTOR Flavor Tabs are formulated according to the weight of the dog and cat. Each tablet size is available in color-coded packages of six or twelve tablets each.

© 2004 Novartis Animal Health US, Inc. INTERCEPTOR is a registered trademark of Novartis AG and Flavor Tabs is a trademark of Novartis AG.

NAH/INT-FIT/BS/3 04/04