

Canine and Feline Behavior

for Veterinary Technicians and Nurses



Edited by **Julie Shaw** and **Debbie Martin**



WILEY Blackwell

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Behavior for
Veterinary
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This text is dedicated to Dr. Andrew Luescher, DVM, Ph.D, DACVB. Dr. Luescher envisioned the role of a veterinary technician in animal behavior in 1998 and then developed and defined that role over the years. He believed pet owners were best served with a team approach to the treatment of behavior issues and he saw the importance of veterinary technicians on that team. He is our mentor, teacher, and friend and without him, it is unlikely this text would have ever come to fruition. Thank you Dr. Luescher for all you have done to promote, protect, and support the human–animal bond and veterinary technicians over the years. We hope we have made your proud.

Julie and Debbie

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Contributors

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Dr. Bennett received her DVM degree in 2006 from Purdue University. She spent 3 years as an associate veterinarian in general practice in Evansville, IN before returning to Purdue to complete a residency in Animal Behavior with an emphasis in shelter behavior medicine and Master's of Science with support through the Maddie's Shelter Medicine Program®. She obtained certification as a diplomate of the American College of Veterinary Behaviorists in 2012.

Dr. Bennett addresses a variety of behavior problems and behavioral disorders including aggression, inappropriate elimination, compulsive disorder, fears and phobias and behavior problems associated with aging across a wide range of species. She particularly enjoys addressing problem behavior in shelter animals, helping to make these pets more adoptable, strengthen the budding human-animal bond and to keep these animals in their new homes.

Dr. Bennett can be found outside the clinic spending time with her husband, dogs, cats, horse or practicing yoga.

Linda M. Campbell, RVT, CPDT-KA, VTS (Behavior)

Humane Society of Missouri, St. Louis, MO, USA

Linda earned her AAS in veterinary technology from Jefferson College in 1990 and has worked for the Humane Society of Missouri (HSMO) since 1974. Over the years Linda developed an intense interest in how behavior impacts the surrender of animals to shelters.

Working at the HSMO provides Linda countless opportunities to expand her knowledge of animal behavior. Linda has assisted the HSMO Animal Cruelty Task Force over the years in disaster responses that include the 1999 E5 tornado that struck Moore City, Oklahoma and managed a field station in Mississippi during 2005 where she received animals displaced by Hurricane Katrina. Linda continues to assist HSMO throughout Missouri with large-scale rescues of animals suffering from abuse, neglect or living in substandard environments.

She has presented at veterinary conferences and animal control seminars, written articles on animal behavior, taught pet dog classes, developed a community-wide animal behavior helpline and implemented HSMO's highly successful Foster Program. During a widely publicized 2009 FBI confiscation of over 500

fighting dogs, Linda coordinated teams evaluating the behavior of each animal.

Currently Linda is the animal behavior manager overseeing training and enrichment programs emphasizing improving the lives and increasing adoptions of the shelter's animals.

Linda is the former secretary of the Society of Veterinary Behavior Technicians, a charter member of the Academy of Veterinary Behavior Technicians, belongs to the Association of Pet Dog Trainers, and a Certified Professional Dog Trainer-Knowledge Assessed, with the Certification Council of Professional Dog Trainers.

Lindsey M. Fourez, BS, RVT

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Lindsey grew up in a small rural town in Illinois. After high school she attended Purdue University where she studied in animal science and veterinary technology. In 2004 she graduated with her AS in veterinary technology, and then in 2005 with a BS in veterinary technology. Currently Lindsey works with the Purdue Comparative Oncology Program.

Sarah Lahrman, RVT

Purdue Comparative Oncology Program, Purdue University, West Lafayette, IN, USA

Sarah Lahrman is a graduate of Purdue University and obtained her Associate's degree in Veterinary Technology in 1998. Following graduation she began work at a small animal practice in Fort Wayne, IN and later moved to another small animal practice in Columbia City, IN. In 2007, her family re-located to Lafayette, IN and Sarah was inspired to work at Purdue University's Small Animal Teaching Hospital. She currently works in the Purdue Comparative Oncology Program.

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Dr. Luescher was the Assistant Professor of Ethology at the University of Guelph (Ontario, Canada) from 1985–1997. From 1997–2011 Dr. Luescher was the assistant professor for Animal Behavior and the Director of the Animal Behavior Clinic at

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Debbie is a registered veterinary technician and a Veterinary Technician Specialist (VTS) in Behavior. She is a Certified Professional Dog Trainer (Knowledge Assessed) and Karen Pryor Academy Certified Training Partner and Faculty. She has a Bachelor of Science degree from The Ohio State University in human ecology, and associate of applied science degree in veterinary technology from Columbus State Community College. She has been working as a registered veterinary technician since 1996 and has been actively involved in the field of animal behavior. Debbie was the president for the Academy of Veterinary Behavior Technicians (AVBT) from 2012–2014 and is the Treasurer. She is an active member and the previous recording secretary for the Society of Veterinary Behavior Technicians (SVBT). (Behavior) She is the co-author of *Puppy Start Right: Foundation Training for the Companion Dog book* and *Puppy Start Right for Instructors Course*.

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Dr. Martin completed a clinical behavioral medicine residency at Purdue University's Animal Behavior Clinic in 2004. He graduated from Louisiana State University – School of Veterinary Medicine in 1999. He is a licensed veterinarian in Texas. He practiced companion animal and exotic animal medicine and surgery, and emergency medicine and critical care prior to completing his behavioral medicine residency. His professional interests include conflict induced (owner directed) aggression, compulsive disorders, behavioral development, psychopharmacology, and alternative medicine. Dr. Martin is the co-author of *Puppy Start Right: Foundation Training for the Companion Dog book* and *Puppy Start Right for Instructors Course*. He is a member of the American Veterinary Medical Association, the Capital Area Veterinary Medical Association, and the recording secretary for the American Veterinary Society of Animal Behavior.

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Ginny Price is a professor at Saint Petersburg College where she teaches small animal behavior (in the AS and BAS programs)

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The Family Companion, Springville, NY, USA

Marcia Rafter Ritchie graduated from SUNY Delhi with an AAS in Veterinary Science in 1977. She worked in private veterinary practices for 20 years where her passion for animal behavior was cultivated by the veterinarians she worked with.

She has been a professional pet obedience instructor since 1984 and was in the first group of 120 instructors to receive national certification through the Association of Pet Dog Trainers (APDT), of which she is a charter member. A past board member of the Society of Veterinary Behavior Technicians, she is currently serving on several committees. She is a founding member of the Academy of Veterinary Behavior Technicians, which was granted specialty status by National Association of Veterinary Technicians of America (NAVTA) in 2008.

Marcia is one of the co-authors of SVBT's "Building the Veterinary Behavior Team" manual. Her behavior articles have been published in both the SVBT newsletter and the Veterinary Technician magazine as well as local publications.

Marcia is the Director of Training and Behavior for "The Family Companion". She now supervises a training staff of 6 instructors who teach pet obedience classes in 7 different locations in the Buffalo New York area. Marcia teaches group classes, private instruction, assists veterinarians with behavior modification and does pet selection counseling. She is a consultant for the Erie County SPCA and a volunteer 4-H leader in the dog program.

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Julie Shaw became a registered veterinary technician in 1983. After working in general veterinary practice for 17 years and

starting her own successful dog training business. She became the Senior Animal Behavior Technologist at the Purdue Animal Behavior Clinic working with veterinary animal behaviorist, Dr. Andrew Luescher, PhD, DVM, DACVB. While at Purdue, Julie saw referral behavior cases with Dr. Luescher, organized and co-taught the acclaimed five-day DOGS! Behavior Modification course, taught many classes to veterinary and veterinary technician students, and instructed continuing education seminars for veterinary technicians, veterinarians, and trainers.

Julie is a charter member of the Society of Veterinary Behavior Technicians and the Academy of Veterinary Behavior Technicians. She is also a faculty member for the Karen Pryor Academy for Animal Training and Behavior.

Julie is a popular national and international speaker on problem prevention, practical applications of behavior modification techniques and other companion animal behavior related topics. She speaks extensively on the need for a TEAM approach that includes veterinarian, veterinary technician and qualified trainer to complete the companion animal mental health care TEAM.

Julie has received many awards including the North American Veterinary Conference Veterinary Technician Speaker of the Year Award, the Western Veterinary Conference speaker of the year and was named the 2007 NAVC Mara Memorial Lecturer of the year for her accomplishments and leadership in the veterinary technician profession.

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Purdue University Veterinary Teaching Hospital, West Lafayette, IN, USA

Carissa Sparks obtained a bachelor's of science degree in animal science in 2002 and an associate's degree in Veterinary Technology in 2003 from the Purdue University College of Veterinary Medicine. She obtained her veterinary technician specialty in neurology from the Academy of Internal Medicine for Veterinary Technicians in 2011. Currently she is employed by the Purdue University College of Veterinary Medicine in West Lafayette, Indiana as the senior neurology veterinary technologist and serves as a committee member for the Academy of Internal Medicine for Veterinary Technicians in neurology.

Preface

The human–animal bond is a powerful and fragile union. Pets, dogs specifically, have evolved from being primarily for utilitarian purposes to taking on the role of a human companion and family member. Consequently, pet owners’ expectations have changed and are continuing to change. As the stigma of human mental and emotional health begins to be shattered, so is the stigma of treating animals with behavioral issues. Pet owners are beginning to recognize their pet’s emotional and mental needs and are reaching out to veterinary professionals for assistance.

We believe it takes a mental healthcare team that includes a veterinarian, veterinary technician, and a qualified trainer to most successfully prevent and treat behavior issues in companion animals.

The veterinary technician is in a unique position to be a pivotal and key component in that mental health care team. Technicians interact and educate pet owners on a daily basis about preventive and intervention medical treatments. Through behavioral preventive services and assisting the veterinarian with behavioral intervention, communicating and working closely with the qualified trainer, veterinary technicians can become the “case manager” of the team, in turn saving lives and enhancing the human–animal bond.

Many books have been published geared toward the role of the veterinarian in behavioral medicine. The purpose of this text is to provide the veterinary technician with a solid foundation in feline and canine behavioral medicine. All veterinary technicians must have a basic understanding of their patient’s behavioral, mental,

and emotional needs. Companion animal behavior in this regard is not a specialty but the foundation for better understanding and treatment of our patients. General companion animal behavior healthcare should no longer be an “elective” in veterinary and veterinary technician curriculums but rather a core part of our education. How can we best administer quality healthcare if we do not understand our patient’s behavioral needs?

The reader will learn about the roles of animal behavior professionals, normal development of dogs and cats and be provided with an in-depth and dynamic look at the human animal bond with a new perspective that includes correlations from human mental healthcare. Learning theory, preventive behavioral services, standardized behavior modification terms and techniques, and veterinary behavior pharmacology are also included.

There is vibrant change occurring in the world of animal behavior professionals. It is as though a snowball that took some work to get started has begun rolling and growing on its own. People like you are propelling that snowball forward and improving the lives of animals and the people who love them.

After the first moment you open this book we hope it becomes outdated – because you will continue to push the snowball forward with new ideas and techniques.

Thank you for improving the lives of animals.

Julie Shaw and Debbie Martin

Acknowledgments

Debbie Martin:

I would like to thank Julie Shaw, a wonderful teacher, mentor, and friend. It was her passion for educating others and initiative that brought this book to fruition. I was honored to have been invited to co-edit the book with her.

I would also like to acknowledge my husband, Kenneth Martin, DVM, DACVB, for his patience, guidance, and understanding as I spent countless hours, days, weeks, and months on this project. His insights and feedback provided much needed support and assistance throughout the process.

Julie Shaw:

Debbie Martin – my student, then my friend, then my colleague and now my sister and my teacher – thank you for putting up with me. You have enhanced my life in ways you will likely never fully understand.

Taylor, Dylan, and Skylar

Over the 5 years it took to complete this book you grew from strange pre-teen creatures into young productive and happy adults. I am very proud and grateful for each of you. For all the times you had to write notes to me because I had my headphones on while writing, for all the times I said, "No we can't, I have to work on the book" and for all the times you spoke and I didn't hear – thank you for believing in me and being patient.

I love you to the moon and back my sweet babies.

Rodney,

You are the highest reinforcement possible at the end of my very long and sometimes challenging learning curve. You are the best human being I've ever known and you help me to be the best person I can be. I adore you.

About the companion website

This book is accompanied by a companion website:

www.wiley.com/go/shaw/behavior



The website includes:

- Powerpoints of all figures from the book for downloading
- Appendices from the book for downloading
- Self-assessment quizzes

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The role of the veterinary technician in animal behavior

Kenneth M. Martin^{1,2} and Debbie Martin^{1,2}

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CHAPTER MENU

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The veterinary staff plays a significant role in preventing, identifying and treating behavioral disorders of pets. Inquiring about behavior at each veterinary visit, as well as, creating client awareness about behavior disorders and training problems, strengthens the client–hospital bond, the human–animal bond, and prevents pet relinquishment. The veterinary technician can excel and be fully utilized in the behavior technician role. The responsibilities of the veterinary technician in animal behavior begin with educating and building awareness regarding the normal behavior of animals. The veterinarian–veterinary technician partnership allows for prevention and treatment of behavioral disorders

and training problems. Distinguishing and identifying behavior disorders, medical disorders, lack of training issues, and being able to provide prevention and early intervention allows for the maintenance and enhancement of the human–animal bond. Clearly defining the roles and responsibilities of the veterinary behavior team facilitates harmony within the team without misrepresentation. The veterinary technician's role as part of the behavior team is often that of "case manager"; the technician triages and guides the client to the appropriate resources for assistance. Before delving into the extensive role of the veterinary technician in the behavior team, the roles of the veterinarian and the dog trainer

will be explored. By understanding these roles first, the pivotal role of the technician will become evident.

- The veterinary technician's role as part of the behavior team is often that of "case manager"; the technician triages and guides the client to the appropriate resources for assistance.

Veterinarian's roles and responsibilities

The veterinarian is responsible for the clinical assessment of all patients presented to the veterinary hospital. The veterinarian's role in behavior includes

1. setting the hospital's policy and procedures,
2. determining which behavioral services are offered and the corresponding fee structure,
3. developing the format of the behavior consultation history form for medical documentation,
4. establishing a behavioral diagnosis and list of differentials, as well as medical differentials,
5. providing the prognosis,
6. developing a treatment plan and making any changes to the plan,
7. prescribing medication and changing medication type or dosage, and
8. outlining the procedure and protocols for follow-up care.

- The veterinarian is responsible for the clinical assessment of all patients presented to the veterinary hospital.

Only a licensed veterinarian can practice veterinary medicine. The practice of veterinary medicine means to diagnose, treat, correct, change, relieve, or prevent any animal disease, deformity, defect, injury, or other physical or mental conditions, including the prescribing of any drug or medicine (Modified from: Title 37 Professions and occupations Chapter 18. Veterinarians Louisiana Practice Act [La. R.S. 37:1511–1558]). The mental welfare of animals and the treatment of mental illness are included in many state veterinary practice acts. Only by evaluating the patient's physical and neurological health and obtaining and reviewing the medical and behavioral history, can the veterinarian

establish a diagnosis and prescribe appropriate treatment. When dealing with the behavior of animals, it must be determined whether the behavior is normal, abnormal, the manifestation of a medical condition, an inappropriately conditioned behavior, or simply related to lack of training.

The veterinarian, by establishing a diagnosis and prescribing behavioral treatment, is practicing veterinary behavioral medicine comparable to a medical doctor practicing human psychiatry; this medical specialty deals with the prevention, assessment, diagnosis, treatment, and rehabilitation of mental illness in humans. The goal of human psychiatry is the relief of mental suffering associated with behavioral disorder and the improvement of mental well-being. The focus of veterinary behavior is improving the welfare of pets and consequently enhancing the well-being of clients. This strengthens the human–animal bond. When addressing the behavior of animals, the mental well-being of the patient should be evaluated in direct relation to the patient's medical health. In this manner, the veterinarian is using a complete or holistic approach and treating the entire patient. This may be accomplished only by a visit to the veterinarian (Figure 1.1).

The veterinarian or veterinary technician should obtain behavioral information during every hospital visit. Many behavioral issues are overlooked in general veterinary practice without direct solicitation. Current pet management information regarding feeding, housing, exercising, training, and training aids should be documented in the medical record. Behavioral topics for puppy visits should include socialization, body language, house training, teaching bite inhibition, and methodology for basic training and problem solving. Behavioral



Figure 1.1 Veterinarian performing a physical examination of the patient at home.

topics for kitten visits should include teaching bite and claw inhibition, litter-box training and management, and handling and carrier training. All senior patients should be screened annually for cognitive dysfunction syndrome. Only through questioning clients regarding their pet's behavior will potential behavioral disorders or training problems be identified. The veterinary staff may then recommend suitable behavior services to address the specific issues. This may prompt scheduling an appointment with the appropriate staff member: the veterinarian, veterinary behavior technician, or a qualified professional trainer.

- Many behavioral issues are overlooked in general veterinary practice without direct solicitation.

When a behavioral disorder is suspected, interviewing the client and obtaining a thorough behavioral history is essential for the veterinarian to make a behavioral diagnosis. The behavioral history should include the signalment, the patient's early history, management, household dynamics and human interaction schedule, previous training, and a temperament profile. The temperament profile determines the pet's individual response to specific social and environmental stimuli. Triggers of the undesirable behaviors should be identified. Pet owners should describe the typical behavioral response of the pet. In addition, the chronological development of the behavior, including the age of onset, the historical progression, and whether the behavior has worsened, improved, or remained the same, must be documented. Discussing a minimum of three specific incidents detailing the pet's body language before, during, and after the behavior, as well as the human response, is necessary. The medical record should document previous treatments including training, medical intervention, and drug therapy. Changes in the household or management should be questioned. Inducing the behavioral response or observing the behavior on a video recorder may be necessary. However, caution should be used in regard to observing the behavior. Often the behavioral history provides sufficient information for a diagnosis. If the description of the behavior does not provide sufficient information, then observation of the patient's **first** response to a controlled exposure to the stimulus may be required. Safety factors should be in place to prevent injury to the patient or others. This should only be used as a last resort as it allows the



Figure 1.2 Boxer presenting for excoriation of the muzzle due to separation anxiety (barrier frustration) with frequent attempts to escape the crate.

patient to practice the undesirable behavior and carries risk. (For an example of behavior history forms, see Appendix 1)

The veterinarian and veterinary staff are instrumental in recognizing behavior issues when a pet is presented for an underlying medical problem. All medical diseases result in behavior changes and most behavioral disorders have medical differentials. A behavior disorder may lead to the clinical presentation of a surgical or medical disease. Surgical repair of wounds inflicted by a dog bite may prompt the veterinarian to recommend behavior treatment for inter-dog aggression. A cat or dog presenting with self-inflicted wounds may indicate a panic disorder or compulsive behavior (Figure 1.2). Dental disease including fractured teeth may prompt the veterinarian to inquire about anxiety-related conditions such as separation anxiety. Frequent enterotomies may indicate pica or some other anxiety-related condition. The astute veterinarian must use a multimodal approach with the integration of behavioral questionnaires and medical testing to determine specific and nonspecific links to behavioral disorders. Medical disease may cause the development of a behavior disorder. Feline lower urinary tract disease may lead to the continuation of inappropriate elimination even after the inciting cause has been treated. Many behavior disorders require and benefit from concurrent medical and pharmacological treatment.

- All medical diseases result in behavior changes and most behavioral disorders have medical differentials.

- The astute veterinarian must use a multimodal approach with the integration of behavioral questionnaires and medical testing to determine specific and nonspecific links to behavioral disorders.

Medical differentials to behavior disorders

When faced with a behavior problem, the veterinarian must determine if the cause is medical and/or behavioral. The rationale that the problem is only either medical or behavioral is a flawed approach. Neurophysiologically, any medical condition that affects the normal function of the central nervous system can alter behavior. The nonspecific complaint of lethargy or depression may be caused by a multitude of factors including pyrexia, pain, anemia, hypoglycemia, a congenital abnormality such as lissencephaly or hydrocephalus, a central nervous system disorder involving neoplasia, infection, trauma, or lead toxicity, endocrine disorders such as hypothyroidism or hyperadrenocorticism, metabolic disorders such as hepatic or uremic encephalopathy, and cognitive dysfunction or sensory deficits. Behavioral signs are the first presenting signs of any illness.

As a general rule, veterinarians should do a physical and neurological examination and basic blood analysis for all pets presenting for behavioral changes. The practitioner may decide to perform more specific diagnostic tests based on exam findings. Additional diagnostics will vary on a case-by-case basis.

The existence of a medical condition can be determined only after a thorough physical and neurological examination. Completing a neurological examination is difficult in aggressive patients. The neurological examination may be basic and limited to the cranial nerves, muscle symmetry and tone, central proprioception, ambulation, and anal tone. Other minimum diagnostic testing should include a complete laboratory analysis (complete blood count, serum chemistry profile, and urinalysis) and fecal screening. A further look into sensory perception may include an electroretinogram (ERG) or brainstem auditory evoked response (BAER). Thyroid testing (total thyroxine, free thyroxine, triiodothyronine, thyrotropin, and/or antithyroid antibodies) may be indicated based on clinical signs, suspicion, and the class of medication considered for behavioral treatment. Imaging techniques, such as radiographs, ultrasound, magnetic resonance imaging

(MRI) or computed axial tomography (CT) may provide invaluable information. The workup for medical conditions and behavioral conditions is not mutually exclusive. However, exhausting every medical rule out may pose financial limitations for the client. After all, diagnosis is inferential behaviorally and medically and the purpose of establishing a diagnosis is not to categorize, but to prescribe treatment.

Behavioral dermatology

A relationship between dermatologic conditions and anxiety-related conditions exists in humans and pets. Environmental and social stress has been shown to increase epidermal permeability and increase the susceptibility to allergens (Garg *et al.*, 2001). A dermatological lesion can be caused behaviorally by a compulsive disorder, a conditioned behavior, separation anxiety, or any conflict behavior. Behavioral dermatologic signs in companion animals may include alopecia, feet or limb biting, licking or chewing, tail chasing, flank sucking, hind end checking, anal licking, nonspecific scratching, hyperaesthesia, and self-directed aggression. Medical reasons for tail chasing may include lumbrosacral stenosis or cauda equina syndrome, a tail dock neuroma or a paraesthesia. Anal licking may be associated with anal sac disease, parasites, or food hypersensitivity. Dermatological conditions may be related to staphylococcal infection, mange, dermatophytosis, allergies, hypothyroidism, trauma, foreign body, neoplasia, osteoarthritis, or neuropathic pain. Diagnostic testing may include screening for ectoparasites, skin scraping, epidermal cytology, dermatophyte test medium (DTM), woods lamp, an insecticide application every 3 weeks, a food allergy elimination diet (FAED), skin biopsy, intradermal skin testing or enzyme linked immunosorbent assay (ELISA), and a corticosteroid trial. It is important to realize that corticosteroids have psychotropic effects in addition to antipruritic properties. A favorable response to steroids does not rule out behavioral factors.

Conversely, behavioral disorders may be maintained even after the dermatological condition has resolved. Dermatological lesions may be linked to behavioral disorders and lesions can facilitate and intensify other behavior problems including aggression. Dogs with dermatological lesions are not necessarily more likely to be aggressive, but dogs with aggression disorders may be more irritable when they have concurrent dermatological lesions.

Aggression

The relationship between the viral disease of rabies and aggression is very clear. All cases of aggression should be verified for current rabies vaccination from a liability standpoint. Iatrogenic aggression in canine and feline patients has been induced by the administration of certain drugs such as benzodiazepines, acepromazine, and ketamine.

- All cases of aggression should be verified for current rabies vaccination from a liability standpoint.

The relationship between hyperthyroidism in cats and irritable aggression is very likely present, although not definitively established. The relationship between hypothyroidism and aggression in dogs is inconclusive. Numerous case reports suggesting a link between aggression in dogs and thyroid deficiency have been published in the veterinary literature. The effect of thyroid supplementation on behavior without the benefit of a control group in these case studies offers limited evidence of a causative relationship. In a controlled study of nonaggressive and aggressive dogs, no significant differences in thyroid levels were found (Radosta-Huntley *et al.*, 2006). Thyroid hormone supplementation in rats results in elevation of serotonin in the frontal cortex (Gur *et al.*, 1999). Serotonin is a neurotransmitter associated with mood stabilization (see Chapter 9). The possible elevation of serotonin due to thyroid supplementation may result in beneficial behavioral changes in aggressive dogs. Spontaneous resolution of aggression with thyroid supplementation is probably overstated and hypothyroidism is unlikely the cause of aggression. While malaise can lead to irritability, many dogs that have hypothyroidism do not show aggression.

The presence of sensory deficits may contribute to aggressive behavior and anxiety. This is particularly important when assessing the behavior of senior patients with concurrent medical disorders. Age-related behavioral changes in the brain can lead to the presentation of clinical signs consistent with cognitive dysfunction syndrome. These signs may include disorientation, interaction changes with the owner, changes in the sleep–wake cycle, and house soiling. Activity level may be decreased or increased.

Elimination disorders

Elimination problems in dogs may be related to urinary tract infection, urolithiasis, polyuria/polydypsia,

incontinence, prostatic disease, renal disease, diarrhea, or neoplasia. Elimination problems in cats may be related to idiopathic cystitis, urolithiasis, infection, neoplasia, polyuria/polydypsia, constipation/diarrhea, or associated with long hair. Urological diagnostics may include a complete blood count (CBC), chemistry, urinalysis, urine culture, adrenocorticotrophic hormone (ACTH) stimulation, water deprivation tests, imaging, cystoscopy, or a urethral pressure profile.

When one is uncertain whether it is a behavioral or medical problem, one must do some reasonable fact finding and treat the entire patient, physically and psychologically. When necessary, infer the most likely diagnosis and treat all contributing factors. Medical and psychological factors must be treated concurrently. A treatment plan that includes conventional medical treatment and behavioral intervention is necessary for successful resolution of the inciting problem.

- When one is uncertain whether it is a behavioral or medical problem, one must do some reasonable fact finding and treat the entire patient, physically and psychologically.

Behavior disorder versus training problem

Behavioral disorders of animals are emotional disorders that are unrelated to training. Training problems relate to pets that are unruly or do not know or respond to cues or commands. These problems are common in young puppies and adolescent dogs without obedience training. These dogs lack manners. Training involves the learning of “human-taught” appropriate behaviors that are unrelated to the emotional or mental well-being of the patient. There are many different approaches to training. Some are purely positive reinforcement based and others rely primarily on the use of aversive methodology (positive punishment and negative reinforcement). Trainers may also be somewhere in the middle regarding methodology, using a combination of pleasant and unpleasant consequences. Depending on the methodology used, positive and negative associations can be made by the dog. Positive methods are less damaging and can strengthen the human–animal bond. Behaviors taught in a positive learning environment are retained longer and performed more reliably. Aversive methods risk creating a negative emotional state and may contribute to the development of a behavioral



Figure 1.3 Therapy dog who suffers from thunderstorm phobia.

disorder. Dogs that are behaviorally normal and emotionally stable, yet lack basic obedience skills related to heeling on leash, coming when called, sitting, lying down and staying, fit into the category of a training problem. Yes, some emotionally unstable dogs may, in addition, have training problems, but training problems and behavior disorders are treated independently as separate entities. Dogs with fear or anxiety conditions can benefit from positive reinforcement-based training in much the same way as shy children benefit from team sports or other confidence-building activities. Dogs previously trained using aversive methodology often need to be retrained using positive methods for performing behavioral modification techniques as a result of the negative emotional response caused by the previous aversive training. Many well-trained dogs have behavioral disorders (Figure 1.3). Examples include separation anxiety or human-directed aggression. These disorders occur in spite of the fact that the dog may be very well trained and responsive to the handler. Dog training does not directly treat behavioral disorders and is not considered practicing veterinary behavioral medicine.

- Behavioral disorders of animals are emotional disorders that are unrelated to training.

- Training involves the learning of “human-taught” appropriate behaviors that are unrelated to the emotional or mental well-being of the patient.

- Some emotionally unstable dogs may, in addition, have training problems, but training problems and behavior disorders are treated independently as separate entities.

It should be noted that there are many benefits to having a trainer associated or working within the veterinary practice. Pet owners have been shown to search the internet for information and call their veterinary hospital for their pet’s behavioral and training needs. (Shore *et al.* 2008)

Qualified professionals to treat animal behavior disorders

When the pet’s behavior is considered abnormal, with an underlying medical or behavioral component, comprising fear, anxiety, or aggression, owners should seek guidance from a trained professional. The veterinarian is the first person who should be contacted when a pet exhibits a problem behavior or the pet’s behavior changes. Changes in behavior or behavior problems can reflect underlying medical conditions, which must be evaluated by a veterinarian. Many underlying medical problems, including pain, can alter the pet’s behavior in ways that are difficult for pet owners to identify. Once medical conditions have been ruled out, behavioral advice should be sought. It is important to understand the qualifications of people who use titles that indicate they are behavior professionals. This is difficult because, unlike the titles veterinarian, psychologist, and psychiatrist, which are state licensed, the title “animal behaviorist” or similar titles can be used by anyone, regardless of their background (modified from www.certifiedanimalbehaviorist.com). Qualified animal behavior professionals include a veterinarian with special interest and training in animal behavior, a Diplomate of the American College of Veterinary Behaviorists (DACVB) or a Certified Applied Animal Behaviorist (CAAB).

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- Qualified animal behavior professionals include a veterinarian with special interest and training in animal behavior, a DACVB or a CAAB.

The American Veterinary Society of Animal Behavior (AVSAB) is a group of veterinarians and research professionals who share an interest in understanding the behavior of animals. AVSAB emphasizes that the use of scientifically sound learning principles that apply to all species is the accepted means of training and modifying behavior in pets and is the key to our understanding of how pets learn and how to communicate with our pets. AVSAB (www.avsabonline.org) is thereby committed to improving the quality of life of all animals and strengthening the human–animal bond. AVSAB membership provides quarterly electronic newsletters containing animal behavior case reports, listings of behavior continuing education, behavior book reviews, advertisements for positions in behavioral medicine; listserv access for networking and exchanging information with veterinarians, veterinary students, veterinary behaviorists, and applied animal behaviorists; and reduced cost of registration and proceedings for the annual AVSAB Scientific Meeting. AVSAB does not certify its members or guarantee its members meet a specific standard of competence or possess specific behavioral knowledge.

The American College of Veterinary Behaviorists or ACVB (www.veterinarybehaviorists.org) is a professional organization of veterinarians who are board-certified in the specialty of Veterinary Behavior. This veterinary specialty is recognized by the American Board of Veterinary Specialization. Board-certified specialists are known as *diplomates*. Veterinarians who have the honor of calling themselves diplomates may use the designation "DACVB" after their names. The requirements for veterinarians include completing the equivalency of a 1-year veterinary internship, completing a conforming approved residency program or a nonconforming training program mentored and approved by ACVB, authoring a scientific paper on behavior research and publishing it in a peer-reviewed journal, writing three peer-reviewed case reports, and successfully completing a comprehensive 2-day examination.

The Animal Behavior Society (ABS) is a professional organization in North America for the study of animal behavior. Certification by the ABS (www.animalbehavior.org) recognizes that, to the best of its knowledge, the certificant meets the educational, experimental, and ethical standards

required by the society for professional applied animal behaviorists. Certification does not constitute a guarantee that the applicant meets a specific standard of competence or possesses specific knowledge. Members who meet the specific criteria may use the designation, "CAAB," after their names. CAABs (www.certifiedanimalbehaviorist.com) come from different educational backgrounds and may include a PhD in Animal Behavior or Doctor of Veterinary Medicine. CAABs, who are not veterinarians, usually work through veterinary referral to provide behavioral care.

Trainer's roles and responsibilities

The role of the dog trainer in behavior is coaching and teaching of dogs and dog owners about basic training and manners. Trainers are teachers. Some trainers function as coaches for competitive dog sports such as obedience, tracking, agility, rally, or protection. Those who work with veterinarians provide an instrumental role in implementing behavior modification as prescribed in a treatment plan.

Comparatively, as it would be inappropriate for a school teacher to diagnose or prescribe treatment for a child with a behavioral disorder, dog trainers may not diagnose or prescribe treatment for veterinary behavioral disorders (Luescher *et al.*, 2007). Although the treatment of animal behavior disorders is considered the practice of veterinary medicine, many states have been unwilling to prosecute when treatment is done in the name of dog training.

Dog training is a largely unlicensed and unregulated profession in the United States. Currently, anyone who wishes to call himself/herself a dog trainer or animal behaviorist may do so, without any formal education or true understanding of learning theory. The trainer's reasoning for the behavior may vary greatly from the actual motivation and the training methodology may be inhumane, outdated, or inappropriate. For example, some trainers base all dog behavior and training on dominance theory. The assumption that dogs misbehave because they are striving for higher rank often leads trainers to use force or correction to modify undesirable behaviors. This negatively affects the human–animal bond and is a flawed approach (Luescher and Reisner, 2008; Landsberg *et al.*, 2008).

When the pet's behavior is considered normal, without an underlying medical or mental disorder, owners may seek guidance from a trained professional. That person may be a Karen Pryor Academy Certified Training Partner (KPA CTP) (www.karenpryoracademy.com,

www.greatdogtrainers.com), a Certified Professional Dog Trainer, or a Veterinary Technician Specialist (Behavior) (VTS-Behavior).

Choosing a dog trainer can be a difficult decision for the veterinarian, the veterinary staff, and the client. A dog trainer should have all the desirable attributes of a good teacher. He/she should keep up with current training tools and methods by attending workshops and continuing education conferences; should be calm, patient, open-minded, understand how dogs learn, and be able to convey this knowledge to the pet owner in a positive and motivational manner; should describe the behavior being trained, explain why it is important, and be able to demonstrate it. In a group setting, ample time should be allotted to individually assist students and allow time for practice. The AVSAB Position Statement on Punishment states: Trainers who use or advocate physical force (e.g., hitting, alpha rolling, pushing a dog into position, choke chain, or pinch collar correction) or methods/devices that have the potential to harm, as an acceptable way to train should be avoided (Eskeland, 2007). Trainers must adapt humane training methods to the individual dog or problem situation. The most outstanding trainers are motivational and positive reinforcement-based in their techniques. Trainers who do not use rewards should be avoided. Motivational trainers use rewards (e.g., food, toys, play, affection) rather than teaching the dog using fear, pain, or punishment. In this situation, the dog works for the possibility of a reward, rather than to avoid physical or psychological punishment. Punishment is rarely necessary, does not teach an appropriate desirable behavior, and should only be used as a last resort by a trainer who can fully explain the possible adverse effects. Before referring to a trainer, veterinarians should interview the trainer about vaccination requirements for attending training classes. In addition, the veterinarian or veterinary technician should observe the trainer instructing a class (Box 1.1). Are rewards used liberally? Are the handlers smiling and using upbeat voices? Are the dogs having fun? Do you hear any yelling or scolding? See any harsh physical correction? And if so, how does the instructor handle the situation? See Appendix 10 for a Trainer Assessment Form.

BOX 1.1: ASSESSING A DOG TRAINER'S COMPETENCE AND ETHICS.

- Welcomes potential clients to observe a class prior to making a decision to enroll

- Explains a skill and gives examples of how the skill is useful in everyday life
- Demonstrates the skill
- Utilizes handouts and other instructional guides
- Circulates through the students giving assistance and guidance when needed
- Remains conscious of the emotional state of all animals in the classroom setting and acts appropriately
- Arranges the classroom to optimize the success of each handler and animal
- Does not become focused on one student
- Keeps the class moving at an appropriate pace
- Can adjust the teaching plan as needed for individual student's needs
- Is professional and respectful at all times to owners/handlers
- Is appropriate and liberal with positive reinforcement to both the owners and animals
- Is familiar with TAG Teach (www.tagteach.com) and utilizes it frequently and appropriately to instruct clients (see Chapter 5)
- Uses appropriate management tools to decrease unwanted behaviors while teaching the desired behaviors
- Utilizes only humane training methods that promote and protect the human-animal bond and are not harmful to the handler or dog in any way
- Does not recommend or utilize choke collars, pinch collars, electronic shock collars or physical punishments^a
- Does not coach or advocate the outdated and disproved "dominance hierarchy theory" and the subsequent confrontational training and relationship that follows from it
- Understands and addresses the emotional and motivational state of the animal
- Recommends and utilizes training tools such as head collars and no pull harnesses on an individual basis or as recommended and prescribed by the veterinarian
- Understands the value of education and attends continuing education seminars regularly
- Is a certified member of a standardized and policed credentialing program
- Because of variables in dog breeding, temperament, owner commitment, and experience, a trainer cannot and should not guarantee the results of his/her training, although should ensure client satisfaction
- Builds and maintains a mutually communicative, respectful, and professional relationship with veterinary professionals
- Understands veterinarians are exclusively responsible for diagnosing behavioral disorders, for medical and behavioral differential diagnoses, and for prescribing

a treatment plan which may include pharmacological intervention

- Any trainer who utilizes punishment must be able to
- 1. understand the scientific principles for the application of punishment,
- 2. articulate the most serious adverse effects associated with punishment,
- 3. judge when these adverse effects are occurring over the short and/or long term, and
- 4. explain how they would attempt to reverse any adverse effects if or when they occur.

^aModified from AVSAB's Position Statement on Punishment.

Before veterinary professionals refer their client to a trainer, they should be familiar with the trainer's level of education and the methodology and tools used to achieve behavior modification. One should be wary of trainers who guarantee results and refer to themselves as a behaviorist, while lacking credentials. The ideal trainer should collaborate openly with the veterinarian when faced with possible underlying medical and behavior disorders (fear, anxiety, or aggression). In doing so, the veterinarian may diagnose and prescribe behavior modification and/or pharmacological treatment. The trainer then may instruct and assist the pet owner on implementation of the prescribed behavior modification plan. A holistic team approach should be developed between the veterinary team, trainer, and client (Table 1.1).

- Before veterinary professionals refer their client to a trainer, they should be familiar with the trainer's level of education and the methodology and tools used to achieve behavior modification.

Fortunately, the trend is toward the licensing of dog trainers who have some level of education; continuing education is also required. The AVSAB Position Statement on Dominance recommends that veterinarians do not refer clients to trainers or behavior consultants who coach and advocate dominance hierarchy theory and the subsequently confrontational training. Rather, behavior modification and training should focus on reinforcing desirable behaviors, avoiding the reinforcement of undesirable behaviors, and striving to address the underlying emotional state and motivations,

including medical and genetic factors that are driving the undesirable behavior.

There are numerous dog trainer schools and organizations that offer online educational correspondence courses. These through-the-internet courses offer to "certify" the participant as a "professional" in the field of dog training and behavior. Many courses are offered by self-proclaimed animal behaviorists and dog trainers to those willing to become "certified" professional dog trainers or a certified "canine behavior therapists." The person's or place's reputation, credentials, and qualifications should be determined before accepting any title or degree. Some organizations are "bogus", while others are well known and taught by professional, qualified staff. The best schools and educational programs for trainers offer their students a strong foundation in learning theory with hands-on workshops, seminars, and continuing education. Reputable certifying organizations "police" their members by holding them to a standardized level of ethics and care. If those ethics and care are violated, certification can be revoked.

The Karen Pryor Academy or KPA (www.karenpryor-academy.com) is an educational organization that offers online education and hands-on workshops in order to certify dog trainers. Graduates of KPA become part of a community of trainers who have achieved and demonstrated a consistent level of excellence and can represent themselves as a KPA CTP. Training partners must teach and train using force-free principles and techniques, are subject to a policed credentialing process and are expected to demonstrate the highest level of professionalism and ethics. KPA CTPs must demonstrate an ability to communicate clearly, professionally, and positively with associates, veterinary professionals, and pet owners. Veterinarians should seek out KPA CTPs in their area to develop mutually beneficial working relationships.

The Association of Pet Dog Trainers (APDT) is a professional organization of individual dog trainers who are committed to becoming better trainers through education. It (www.apdt.com) provides membership networking and sharing of ideas through educational conferences, newsletters, and seminars. Membership is open to any member of the public who is interested in dog training. APDT does not offer trainer certification directly. It encourages its members to make use of "dog-friendly" training methods that use reinforcement and rewards, not punishment, to achieve the desired behavior. There is no policing of training methodology or education requirements to be an APDT member.

The Certification Council for Professional Dog Trainers (CCPDT) was originally created by the APDT in 2001.

Table 1.1 The roles and responsibilities of the veterinary behavior team.

Roles and responsibilities	Veterinarian	Veterinary technician	Dog trainer
Initial client communication	X	X	X
Client education and awareness	X	X	X
Obtaining clinical history	X	X	–
Setting hospital policies & fee structure	X	–	–
Medical differentials	X	–	–
Behavioral diagnosis	X	–	–
Prognosis	X	–	–
Develops and modifies treatment plans	X	–	–
Prescribes medications	X	–	–
Implementing prescribed treatment plan	–	X	X
Follow-up communication with client	X	X	X
Follow-up communication with veterinarian	–	X	X
Follow-up behavior consultation	X	–	–
Demonstrate training methods	–	X	X
Demonstrate training tools	–	X	X
Assess pet's trainability	–	X	X
Identifying normal versus abnormal behavior	X	X	X
Problem prevention	X	X	X
Teaching puppy and kitten classes	–	X	X
Teaching manners and obedience classes	–	X	X

The CCPDT (www.ccpdt.org) was the first national certification program for professional pet dog trainers and offers an international testing program. All certified trainers must earn continuing education credits to maintain their designations. They must also agree to adhere to a code of ethics. Candidates who meet the following requirements and pass the written exam earn the title Certified Professional Dog Trainer-Knowledge Assessed and may use the designation, "CPDT-KA," after their name. The certification requirements are as follows.

1. At least 300 h experience in dog training within the last 5 years. Two hundred and twenty-five hours or 75% of experience must be actual teaching hours (group class, private lessons) as a "Head Trainer" or Instructor. Seventy-five hours or 25% of experience can be in other related areas such as working with shelter animals, assisting in classes, working as a veterinarian technician or grooming (bather position not applicable).
2. A high school diploma or equivalent.
3. One reference from each of the following:
 - Veterinarian
 - Client
 - Colleague

4. Completion and filing of an Application for the Certification Examination for Pet Dog Trainers.

5. Signing and filing the CCPDT Code of Ethics.

6. Payment of required fee.

7. Successful completion of the CPDT examination.

CCPDT has recognized the importance of evaluating the hands-on skills of trainers. In 2011, they launched a practical assessment of a trainer's skills. A trainer who is already a CPDT-KA may be evaluated and tested on hands-on skills via video submission. If the candidate passes the hands-on practical assessment, he/she earns the title of Certified Professional Dog Trainer-Knowledge and Skills Assessed (CPDT-KSA).

The Society of Veterinary Behavior Technicians (SVBT) is a professional organization open to veterinary technicians, veterinary technician students, and the general public. SVBT's mission is to enrich human–animal interactions by promoting scientifically-based techniques of training, management, and behavior modification. SVBT (www.svbt.org) provides a forum for discussion and continuing education while working with allied professional organizations to strengthen the veterinary health care team. In 2008, the National Association of Veterinary Technicians in America (NAVTA), through the AVBT (www.avbt.net), recognized the specialty for veterinary technicians in animal behavior.