Therapy of Behavioral Disorders

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Therapy of behavioral disorders is usually multifaceted. Successful therapy generally is characterized as a gradual attenuation of undesirable behaviors or gradual improvement in desirable behaviors. Record keeping is critical in assessing the outcome of therapy. Among the tools used for behavior modification are environmental changes, socialization, basic training, feeding changes, extinction, operant conditioning, counter conditioning, desensitization, and pharmaceutical therapy.

Introduction

Veterinarians are familiar with a wide variety of therapeutic options for the correction of medical disorders. When it comes to treatment of behavioral disorders, however, many feel helpless because of a lack of familiarity with behavior therapy tools. In addition, successful behavior therapy results in more gradual improvement, often resulting in rapid changes in treatment plan, before the current plan has had sufficient time to work. All treatment plans should be given a minimum of eight weeks before they are considered ineffective. It is critical to involve all members of the household in the treatment. One person reinforcing an undesirable behavior can derail the entire process. The owners should be instructed to keep a diary of the bird's behavior and progress. They should track frequency, severity, and character of the behaviors exhibited by the bird. The importance of this cannot be overemphasized. As an example a plan for a bird showing nuisance vocalizations is developed. The owner calls back and says that the treatment plan is not working since the bird is still screaming "all of the time". When they look in the diary, however, it is determined that initially the bird screamed 12 times a day, and each episode lasted about 11 minutes. Now there are eight episodes, each lasting 9 minutes. While this seems like the bird is still screaming all the time, there has been substantial reduction in the problem behavior, indicating that the plan is on the right track.

Therapy of behavior problems is usually multifaceted. Very infrequently will a single change resolve the problem. All plans must be comprehensive and customized. As such, it may be difficult for either the owner or the veterinarian to remember all of the components of the treatment plan. It is critical that the plan is written out clearly so that it can be followed by the owners. A copy should be retained in the patient record. Many times if a problem fails to resolve, or if it reoccurs, the plan can be reviewed with the owner. Often it is determined that the plan has not been followed accurately.

Some of the tools available for use in treating behavioral problems are discussed below. It is assumed that when these are applied, that a sufficient evaluation of the patient has been made. The process of developing a behavioral diagnosis is discussed in another paper.

Environment

Any deficiencies in the environment of the bird, that are noted on the behavior history obviously should be corrected. Cage size, location, and surroundings should be altered according to the needs of the bird. Placement of the cage in a corner, within sight of the family activities is generally ideal. In addition to this, however, a few alterations in the environment can facilitate correction of certain behavioral conditions. Birds that vocalized excessively due to frequent flock cohesion calls, may benefit from a central location where they maintain visual contact with the owners. If this is not

possible, a mobile play station can be used to move the bird to various spots so that it can maintain contact. Alternately, a separate bird-safe spot can be set up in each area where the owners spend time. This allows the bird to feel part of a flock without constant direct contact. A second cage for sleeping can ensure adequate sleep cycles, and can reduce territorial aggression.

A training area is sometimes helpful when dealing with aggressive or fearful birds. It is often useful to work with birds in an area where they cannot see other people or their familiar territory. A relatively small space, with nothing other than a perch and perhaps a chair is best. If a bird can crawl under furniture, or get on a high curtain rod, too much time is spent chasing and retrieving the bird and not enough is spent on the drills. A cleared walk-in closet, or a bathroom, often works well. Some owners may want to set up a training booth. A space enclosed by a shower curtain on each side can be set up relatively easily. The edges can be secured with hook and loop fasteners to keep the bird inside. The soft curtains prevent injury if a bird flies or leaps into the side.

Socialization

Parrots are obligately social animals. This is one of the traits that has made them popular companions for so long. Unfortunately this is also what gets them into trouble in many cases. Companion birds are frequently raised by and imprinted upon humans. As such they regard humans as their flock. However they are frequently left behind by the surrogate flock. This can be extremely stressful. On the other hand, the time that owners spend with the bird is often bonding with them in ways that only a mated pair would bond. Mutual preening and other close physical contact are not interactions that two birds engage in unless they are pairing for reproduction. When owners pet, kiss, cuddle, and caress their birds, they are effectively proposing marriage to them. For a human-imprinted bird, this leads to confusion. These types of interactions should be replaced by active play, verbal interaction, training sessions, and exercise. This can be the most difficult change to convince owners to make. Often they chose the bird because of how “cuddly” it was. It is helpful to emphasize the fun of training a bird to use words appropriately, or to do“tricks” on cue.

Basic training

There are certain behaviors that all pet birds should know and perform readily when requested. These behaviors include stepping up onto the hand, stepping down onto a perch, and staying on the perch. These behaviors should be practiced daily with birds that are first learning, and at least 2-4 times weekly for birds that behave well. These behaviors facilitate all other behavior modification. The owner should be coached on handling technique. The author uses behavior classes to teach owners these skills. This is discussed in greater detail in another paper.

Feeding

The popular press raves about the impressive intelligence of parrots, and yet many people have difficulty in teaching them even remedial behaviors. The reason for this is a lack of motivation. Pet parrots tend to be spoiled and lazy. Many have never been challenged or even encouraged to use their intelligence. In addition, most birds have an endless buffet in front of them at all times. As a result, many are not very motivated by food. In fact many will not even accept a treat when offered, much less perform a behavior to receive it. Some of the training that is done is operant conditioning, which requires that the pupil is motivated by the reinforcing reward.

One technique that can make a bird more motivated by food is foraging. By making the process of finding, obtaining, and eating the food a more challenging process the bird appreciates the food

more. In addition, it makes them more curious, active, and playful. In addition, a larger part of the day is spent foraging rather than engaging in stereotypical behaviors or excessive preening. The first step is to ration out the diet carefully. There should not be much, if any, excess. At least a portion of the food, favorite foods in particular, are then placed in a way that requires the bird to move, climb, sort, or search to find them. For example, the first step may be to place one fifth of the daily food into each of five smaller dishes, placed all around the cage. Once the bird is proficient at getting to the food, the task is made more difficult by mixing inedible, non-toxic objects (wooden beads, paper litter, etc.) with the food. It is uncommon for birds to swallow significant amounts of this foreign material, however, this should be monitored closely. Once proficiency is gained, the task is made more difficult still by covering the dish with paper, then wrapping individual food items in non-toxic paper. Additional morsels of food can be hidden in and around toys, on play gyms, etc.

When new behaviors are to be taught, some of the daily ration, especially favorite treats, can be reserved for rewards. With this process, the bird enters training sessions eager to earn rewards.

Extinction

When the word extinction is used, an image of *Archaeopteryx* or Carolina parakeets often comes to mind. In behavior, however, the term refers to the extinction of a behavior brought about by lack of reinforcement. Theoretically, if a given behavior fails to be reinforced repeatedly over time the behavior will be used with decreasing frequency and eventually go away. For example, a cockatoo is screaming for attention. The owner ignores the bird. Over time the screaming will diminish. Unfortunately, the process is not so simple. Many behaviors are reinforced intermittently. In addition, many owners inadvertently reinforce behaviors. Using the same example, the cockatoo is screaming for attention. The owner tries to ignore the bird. The owner leaves the room. The cockatoo continues to scream. Eventually, they have had enough and they yell at the bird. The behavior has been reinforced, and the bird is taught that it has to be very persistent. In general the author's experience is that extinction may be effective for behaviors that are not well established but are poorly effective or ineffective for well established behaviors.

Punishment

Punishment is roughly defined as a consequence of a behavior that makes a behavior less likely to occur again. Generally punishment is not encouraged because it has great potential for harm and poor efficacy in reducing undesirable behavior. If they are used at all, punishments must never harm or frighten the bird. Verbal reprimands, turning off the lights, and laddering (repeated step-ups) are sometimes used. In order for punishments to be effective, punishments must occur within seconds of the behavior.

Operant conditioning

Operant conditioning is one of the most effective means of training any animal to perform behaviors at a given time. While the ability to do "tricks" on command may seem to be unimportant or even exploitative, it offers a powerful behavior modification tool. The process is relatively simple, provided that the bird is motivated by the chosen reward. This is where the feeding instructions, as discussed above, become more important.

First, the behavior to be trained should be selected. A behavior that the bird performs naturally is best. If the behavior can be physically induced, this will facilitate training as well. For instance,

teaching a bird to wave. The bird can be induced to lift a foot by putting the hand up as in a step-up, but the hand is not brought close enough for the bird to step on. Next, a verbal cue or command should be attached to the behavior. Something clear and simple is best. In the example above, the word “wave” can be used. So then the sequence would be to first say the word “wave”, then to bait the bird to lift the foot, and then a reward is given. At first, even very feeble attempts at the behavior are rewarded. As the bird improves, rewards are given only for more complete performance. With some creativity, a wide variety of useful or amusing behaviors can be taught. The author advises new bird owners to train their birds to submit to towel restraint.

Counter conditioning

Counter conditioning is a powerful behavior modification tool. This method is more effective than punishment or extinction for reducing undesirable behaviors. It requires that the bird has been conditioned to perform some behaviors on command. Once the bird consistently performs some behaviors on cue, the process is simple. When an undesirable behavior occurs, the cue for a trained behavior is given. When the trained behavior is performed, a reward is given. This is repeated whenever the undesirable behavior is noticed. The goal is to “short-circuit” the behavior. In other words, whenever the bird gets a desire to perform the undesirable behavior, it automatically goes to the trained behavior instead. This will work best if the undesirable behavior is one that occurs mostly in the presence of the owner. It also works best if the trained behavior is incompatible with the undesirable behavior. For example, if a bird is screeching, a behavior like whispering cannot be done at the same time.

Desensitization

Desensitization is the primary tool for reducing fears. If it can be determined what the source of fear is, the bird is exposed to it at low intensity. The intensity of the stimulus can be reduced by increasing distance, shortening exposure time, or by exposing only certain aspects. As an example, a bird shows excessive fear of a certain person. This person should avoid going into the room except for the desensitization sessions. Initial sessions may involve this person entering the room with the bird in the cage. The person does not look directly at the bird, moves very little, does not speak, and stays only briefly. This is repeated until the bird shows no sign of fear at this level. Next the person does everything the same, but now talks softly to the bird from across the room. When this is tolerated, the person briefly looks at the bird occasionally. Then the person moves closer. Each level changes only one aspect of the interaction and to a small degree. In this way, the bird can gradually overcome the fear of the person.

Pharmaceutical therapy

In some cases, behavior modification can be facilitated by the use of behavioral drugs. Care should be taken that these drugs are not simply used to dull the signs of deeper problems. Every effort should be made to formulate a behavioral diagnosis, and to develop a rational program utilizing both behavioral modification and pharmacotherapeutics. A thorough medical workup should precede the use of any of these drugs and periodic monitoring should continue as long as the patient is receiving the drug.

When considering drug therapy, all of the aspects of the therapy must be considered. An extremely fearful bird may benefit from anxiolytic drugs. However, the process of capturing and restraining the bird, and administering the drug may counteract the benefits. The author’s experience has been that anxiety is somewhat responsive to medical therapy, but most other types of behavior show a

poor response. Tricyclic antidepressants (e.g. clomipramine), serotonin specific re-uptake inhibitors (e.g. fluoxetine), and butyrophenone tranquilizers (e.g. haloperidol) are most frequently used for reducing anxiety or fear.

Behavioral disorders associated with reproductive drive may respond to hormone therapy. Leuprolide acetate, a synthetic gonadotropin releasing hormone (GnRH) agonist repositol drug, is sometimes used to suppress reproductive hormone production and therefore behaviors related to reproductive hormones. While this drug has proven safe so far, effective long term protocols for therapy have not yet been established. Theoretically the drug should work best if a steady state is maintained. Intermittent use could actually stimulate reproductive hormone production. Medroxyprogesterone acetate, a synthetic progestogen, also suppresses other reproductive hormones. Its duration of effect is about 4-8 weeks. Unfortunately, there are numerous adverse effects of this drug including weight gain, liver degeneration, and diabetes mellitus. For this reason its use must follow a thorough workup and requires frequent monitoring of the patient's weight and blood chemistries.

Compiling the final plan

The behavior consultation in the author's practice is often staged. The problem is presented to the veterinarian during a visit. The owner is provided with a behavior survey form and instructed to videotape the bird's behavior at home. The survey and tape are returned to the office and reviewed by the veterinarian. Initial impressions and plans are formulated at this time. At this time a second consult is arranged. At the consultation, the behavior survey is clarified, adjustments are made to the diagnosis and the plan, and the plan is laid out verbally to the owner. Afterward, the whole plan is printed and sent to the owner and a copy is kept in the medical record. It is useful to have instructions for various behavior modification tools in computer files that can easily be copied and pasted into the instructions to the owner. This can save time in retyping the same instructions to many owners. Part of the plan should always include a follow-up visit about two months after the initial visit.

Many times, the plan is revised along the way due to difficulties the owner may be having with following the initial instructions. These difficulties and changes should be recorded in the patient's file so that it is easy to look at the record and determine the current status.

Conclusion

The skills developed for diagnosis and treatment of medical problems equips veterinarians to be effective in the treatment of behavioral disorders as well. By learning how to identify specific behavioral conditions, and applying the treatment modalities discussed in this paper, many behavioral conditions can be successfully treated. Behavioral disorders have become too common to be ignored by the profession that is best equipped to deal with them.