MORE PURR, LESS HISS: CAT-FRIENDLY IN PRACTICE

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Research indicated that veterinary medicine has been under serving the feline patient population (falling wellness visits, patients MIA) for some time. The AAFP cat-friendly practice program and feline-specific nursing guidelines were devised to help practitioners meet the needs of this unique patient demographic. This lecture provides an overview of domestic feline behavioral and environmental needs and introduces easy and effective steps practitioners and technicians nurses can take to decrease stress in their feline patients with a focus on restraint, housing, pheromone use, and nutritional needs.

Keywords: cat, ethology, feline-friendly, nursing, stress

Approximately 78 million pet cats live in the USA (about 30-37% of households have a pet cat). In Canada, cats are more popular than dogs with 37% of households owning cats compared to 32% owning dogs; this equates to approximately 7.9 million pet cats in Canada as of 2016. When polled, 58% of cat caretakers say their cat hates going to the veterinarian and 38% of them say they get stressed merely *thinking* about taking their cat to the veterinarian. The term "caretaker" is chosen carefully over "owner" since it is often said that "dogs have owners" while "cats have staff." In examining this information, it is readily apparent that it is difficult for cats to obtain the medical care they need if their caregivers are stressed at the prospect of transporting them to their general practitioner. In response to declining wellness visits in the feline patient population, the American Association of Feline Practitioners (AAFP) instituted their Cat-Friendly Practice/Cat-Friendly Clinic program. In the intervening years, awareness of, interest

in, and research exploring the unique ethologic and physiologic needs of cats has become more prominent.

As clinical professionals, the veterinary community has a series of goals when treating companion felines. We seek to identify the source of pain or pathology through the physical examination and diagnostic process; at the same time, we seek to control pain and fear while enhancing both the patient and caregiver's confidence in our ability. We must also educate the caregiver as the unique needs of the pet so that those needs can be met. We must also protect our colleagues, the patient, and their caregiver from injury while we are treating them in the clinic or in the home setting. On a practical level, we must also build our practice and provide a reliable living to our staff so that they can meet their basic needs and achieve their goals, whether that is paying the rent, taking a vacation, or sending children to college. Adapting cat-friendly practices can meet most, if not all, of these goals.

In order to provide optimal care for cats, it helps to review a little bit about their biology and ethology, even though we *think* we know this species quite well. *Felis catus* is a small, obligate carnivore felid descended from African and Middle Eastern wild cats thousands of years ago. In the food chain, they occupy a position in between predator and prey, meaning that there are some species they prey upon; they must also be concerned about becoming prey themselves. This dichotomy drives much of their behavior, even in domestication. Cats are intelligent, adaptable, and energy conserving world travelers who thrive in a breathtaking variety of environments. They can be found on Greek docks, in London penthouses, Shanghai street markets, on the streets of Moscow, on the decks of container ships in the Pacific, in Alabama living rooms, and in the barns of Kentucky. As befits a small predator designed to hunt in poor light conditions and mixed cover, they are crepuscular in their activity (most active at dawn and

dusk) with keen vision attuned best to movement in low light. Their hearing is excellent and their vibrissae (whiskers) provide enhanced sensory input in tight quarters. They communicate primarily through olfactory signatures, vocalization, changes in body posture (including subtle alterations in facial topography), and touch. Cats are uniquely attuned to changes in their environment that may constitute a potential threat, given them a heightened "fight or flight" response.

In the home environment, cats prefer to have some control over their territory, movements, and schedule. They sleep up to 18 hours a day (energy conservation at its finest) and prefer elevated perches where they can survey their domain for threats. In general, cats prefer a quiet life with a set routine and familiar caregivers, and some research indicates that they like a physically warmer environment in comparison to human beings. Cats are easily distressed by loud noises, changes in routine, strong odors, rough handling, and strangers/new objects. They find rapid movement to be arousing/stimulating. In this species, physical comfort is directly related to emotional well-being and health; if adequate resources and space are not allotted for normal behavior, the cat will become ill, something that results frequently in multicat homes. Socially, cats prefer a model of "living alone together" with affiliated and non-affiliated individuals sharing space with mixed success. Preferred affiliates (cats with friendship bonds) will share resources happily and engage in mutual play, grooming, and sleeping while those that are unaffiliated may fight, guard resources, and limit movement within the territory.

The vast majority of "bad" feline behavior in the clinical setting can be attributed to pain, fear, or the misinterpretation of the cat's communication by its handlers. Escalated restraint can frequently result in an escalation of fight/flight behavior by the cat. This results in an increased number of on the job sustained bite and scratch injuries and an increase in worker's

compensation claims. A better understanding of feline body language can minimize these undesirable miscommunications. When assessing behavior or temperament, it's important to consider the role of pain, especially since degenerative joint disease is under diagnosed in cats. Feline pain responses are not contiguous with canine pain responses, although the conduction pathways are identical. If a disease or procedure is painful for a person, we can as professionals assume that it is painful for a feline patient. There are a wide variety of safe injectable drugs currently available for cats, and many are reversible. When in doubt, it may be better to "ask the patient" by administering a low dose of analgesia to see if the patient's demeanor and tractability improve. The implementation of standardized and consistent pain scoring for feline patients simplifies the process (such as the Colorado State University feline pain score or Glasgow feline pain score).

Before a feline patient arrives in your clinic, it has already run a gauntlet of stressors, even if it is not systemically ill. It has been loaded in a carrier, transported via automobile, made to wait in the lobby, and been exposed to a variety of odors, sounds, and stimuli. There are a variety of steps nursing staff can take at each step of the visit to mitigate the stress for these patients, beginning with the carrier. Many cats only see the carrier when a vet visit is needed, but the client can re-train the cat to perceive the carrier as a sanctuary. Beginning in kittenhood, the carrier should be part of the cat's daily life—it should be outfitted with comfortable bedding and treats/meals should be offered inside. Once the kitten or cat is comfortable sleeping or resting in the carrier, the door can be closed and the carrier moved to a different room.

Eventually, the cat can be placed in the carrier and taken to the vehicle for a short "visit." Once this is a success, the client can take the cat in its carrier for short trips. Each step of the process should be rewarded with play, grooming, or appealing treats (liver paste, bonito flakes, or dried

chicken/fish, etc.). Because olfaction is a major component of feline communication, pheromone analogues such as Feliway or ComfortZone can be used in the crate and bedding to create positive associations. Pheromone analogues replicate the natural pheromones released from glands found on the cheeks, chin, tail head, and paws that signal safety and comfort. Their use has been documented in at least one RCT, double blind placebo study to improve appetite, grooming, and behavior.

Cat-friendly clinical practice begins in the lobby. Ideally, waiting areas for cats and dogs will be separated by a visual barrier (bookcase, fish tank, potted plants, furniture, etc.). A plugin pheromone diffuser can be placed on the cat side of the waiting area. If possible, elevated space (benches, counters, etc.) should be included so that carriers do not rest on the floor. If wait times will be long, consider distributing pheromone-dressed towels to clients so they can cover their cat's carriers for privacy and noise reduction. Loose cats should never wait in a lobby area, so if possible, a reserve stock of cardboard or other carriers should be kept on hand to offer clients with uncontained feline patients. If there are a sufficient number of exam rooms available, it is ideal for one to be reserved as a cat only room. This room can be outfitted with a pheromone diffuser, space heater, dimmable lighting, a textured surface for the exam table, and all the cat-specific supplies (smaller syringes and blood tubes, earbuds for BP assessment, pheromone-sprayed towels, restraint collars, treats and toys, etc.) that may be needed for a sick or well cat visit. It should not be used for dogs, even at peak hours.

In the exam room, provide a textured surface on the exam table. This is as simple as cutting up a discount yoga mat or using the drawer liners available at the grocery store. Feline patients should be examined wherever they feel most comfortable and safe. In the past, it was common to drop or drag the cat out of the carrier, but preferable techniques now exist. For

starters, begin your examination before you remove the cat from the carrier. Assess demeanor, posture, and respiratory rate/effort; make an evaluation of general health (eyes, nose, coat, body condition) before opening the carrier or removing the top. If you can remove the lid and permit the cat to stay in the bottom of the carrier, it will feel safe and you should be able to complete the majority of your exam and vital sign assessment. If the style of carrier doesn't permit this, ask the client to remove the cat from the carrier and allow it to rest in the client's lap or on the table covered by a towel/blanket. Introduce yourself to the cat by allowing it to look at and sniff you before you move on to gentle touch on the head, dorsum, and face. Then you can assess heart rate and auscult the thorax. Save invasive parts of the exam (rectal temperature, abdominal palpation, oral exam) until the end. Take your time and move in a controlled manner; speak quietly—remember that cats become stimulated by quick, jerky movements and high-pitched tones. If the cat shows signs of stress (staring, vocalization, changes in ear position or piloerection, desire to hide or flee), take a break. If Doppler blood pressure assessment is part of your examination, invest in a few sets of inexpensive earbuds and use them with your Doppler this will eliminate static and help keep the cat calm. The coccygeal artery is a preferred site for BP assessment in cats since most do not like having their feet touched. It is also not necessary to trim the hair with clippers to obtain an accurate reading. If sufficient alcohol and lubricating gel are used, the signal should be easy to locate as long as the crystal is positioned close to the tail base and in the channel between the vertebrae. For well patient visits, it's ideal to use play or treats to reward the cat for good behavior. Soft cheese, liver paste, canned cat food, and anchovy paste are highly scented and appealing (verify sodium content), as are dried bonito flakes and freeze dried meats (chicken, liver, shrimp). Wand-style fishing toys are excellent for helping

busy kittens burn off steam during a visit and some adult cats also enjoy them. Treats and toys may not be appropriate for sick cat visits.

Cats have special considerations when staying in the hospital. If possible, feline patients should be housed in a separate ward from dogs in cage banks that do not permit the cats to see each other. If this is not possible, consider covering part of the cage door with a Feliwaysprayed towel for privacy. Dogs should be housed as far away from cats as possible and pheromone diffusers can be used in the cat ward. Each cage should be large enough to accommodate the patient, a hiding box, a litter pan 1.5x the length of the patient (large enough for the cat to turn, scratch, and posture), and food/water dishes. Food/water should be placed as far from the litter pan as possible. Arthritic, very young, or debilitated cats benefit from a lowsided litter pan such as a cardboard food flat or a plastic fast food tray. Hiding places do not have to be fancy—a cardboard box will suffice—but they are essential! Research in a variety of settings (shelter medicine, laboratory, veterinary clinic, etc.) has validated that a hiding place can enhance coping, resilience, and normative behavior expression in this species. The more effort that is made to reduce the feline patient's stress levels, the easier it will be to interact with the cat and perform treatments and procedures. A managed macro and micro environment (both the larger ward area and the cage itself) will help the cat be less reactive. The Cat Stress Score (CSS) is an easy-to-use rubric that can be incorporated into daily patient exams or used sequentially in conjunction with pain scoring. Most research indicates that domestic cats require at least 48 hours to adapt to a cage environment, whether that is in a shelter or a veterinary hospital.

Feline restraint can be a point of contention, with pro-and anti-scruff factions found within most hospitals. A variety of tools and techniques exist for the safe restraint of cats; some

are more cat-friendly than others. Care should always be taken to ensure that respect for the cat is incorporated into the procedure while keeping in mind that the restraint must be safe for both the patient and personnel. Whenever possible, the patient should be removed from its housing area for treatments and procedures to be performed—this helps the cat perceive its cage as a safe zone and enhances coping. When moving cats from one area of the clinic to another, an enclosed carrier should always be used. Cats feel most secure when their bodies are fully supported as in a "football" hold. If holding a cat facing backward over the shoulder (a "baby burping" position), there is some risk that the cat will launch from the handler's shoulder in the opposite direction of travel. For calm cats, towel wraps and modified snake holds can be very effective when drawing blood, trimming nails, and administering oral medications. Many practices have good success with cat bags and blanket restraints. Snap restraint collars are thicker, wider, and sturdier than conventional Elizabethan collars, are easy to place, and provide enhances protection for staff. They are used for procedures and are removed when they are no longer needed. Regarding scruff restraint, our practice no longer uses it for a number of reasons and has found alternative methods to be very successful. Adult cats are heavier than kittens and we feel the procedure is potentially painful and may cause unnecessary panic in the patient. It is unclear what endorphin or chemical signals are sent when this restraint is used on a cat past the brief window in kittenhood when the mother cat uses it—in adult cats, the closest approximation is the nape bite used in fighting and mating. Scruff restraint has also been documented to cause significant dermal injury in cats with endocrine disorders and occult dermal disease. While cat muzzles, poles, snares, and nabbers are still available on the market, our practice has not used these methods in many years. In the end, a well-trained and empathetic nurse is the most

effective restraint tool available. The advantages of chemical restraint in appropriately selected patients cannot be overlooked.

When making the change to cat-friendly practices in your clinic, it's important to maintain a positive attitude and sense of humor. Nurses are uniquely position to make significant improvements in the way a hospital approaches the feline patient due to their creativity, curiosity, empathy, and resilience. They can lead by example, coach the reluctant, and model the best practices while putting the patient first. The American Association of Feline Practitioners (www.catvets.org) website has excellent resources, including environmental needs guidelines, position statements, nursing guidelines, and handling guidelines.

Resources

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Conflict of Interest

The author declares that she has no conflict of interest that may influence the contents of this lecture.