

ANIMAL REHABILITATION

SPECIAL INTEREST GROUP

President's Message

Kirk Peck, PT, PhD, CSCS, CCRT

Continuing Education Reminder:

I am going to put this out there front and center...PLEASE consider attending the IAVRPT- 8th International Symposium. As mentioned previously the ARSIG is a **Silver Sponsor** for the *International Veterinary Rehabilitation Symposium* being held in Corvallis, Oregon, August 4-8, 2014, and the agenda looks great. Details about the Symposium may be found at the following: www.isvr2014.com.

ARSIG Updates

Recent activities by ARSIG Officers:

1. Revised content on the ARSIG web site, including goals.
2. Finalized details for the "special" 2-day canine rehabilitation CE course to be held in Springfield, MA, September 6-7, 2014.
3. Preparation for the ARSIG involvement in the Orthopaedic Section Strategic Planning Meeting to be held, October 15-17, 2014.
4. Continued discussions regarding a "new" practice analysis survey for distribution among all SIG members.
5. Generation of ideas for a "special" graphic logo to represent the ARSIG.

OPTP Submissions

I realize I sound like a broken record here but once again, I request all SIG members to please consider submitting articles for publication in OPTP. A key role of the SIG is to promote and advance the practice of animal rehabilitation, and by sharing clinical wisdom and knowledge, all SIG members can contribute to the cause.

At a minimum, a short paragraph or two on a clinical pearl related to evaluation or treatment techniques would be a wonderful way to share with others. Writing a brief critique or review of an interesting journal article or new book publication is another option. A little more extensive work ensues with writing case study reports or randomized controlled experiments, but I know some of you are directly involved in such work and your willingness to share with the SIG would be greatly appreciated. So please, I encourage everyone to consider adding to the body of knowledge in support of the SIG, and more importantly, to help "advance" the science of animal rehabilitation.

State Legislative Questions

The number of questions I receive pertaining to state laws and PT practice on animals throughout the country continue to grow. The following examples represent a few key issues I have personally responded to over the past several weeks.

1. *Question:* If state laws are "silent" on non-Vets performing animal rehabilitation, is it legal for PTs and PTAs to practice on animals?

Answer: It depends on how legal authorities in state jurisdictions interpret scope of practice when language is non-existent. Some

states might ignore the "silence" in legal language while other states have taken action, generally declaring that it is not legal for PTs and PTAs to practice without presence of explicit language.

2. *Question:* How can I tell if it is legal for a PT or PTA to practice on animals in my state?

Answer: There are several sources to consult in answering this question. The first and most obvious resources are state practice acts for both physical therapy and veterinary medicine. Second, is to review regulatory language corresponding to statutory law. Regulatory language is generally where the details have been ironed out by professional boards and state health departments. Third is to check if there have been any official opinions rendered on the issue of animal rehabilitation by professional health boards or the state Attorney General. In addition, state Departments of Health might also have something on record in relation to animal rehabilitation. Finally, at the very least consult your state PT Association to see what they have on record. Minutes from many of the organizations and departments just mentioned can be found online...but you will have to do a little digging if you are not familiar with web searches for legal and regulatory documents. However, I urge everyone to explore state laws and know your legal limits before you get too invested.

3. *Question:* How do I go about legalizing animal rehabilitation for PTs and PTAs if the current scope of practice does not allow for treatment of animals?*

Answer: First and foremost, you absolutely must consult your state PT Association to see where they stand on the issue. Support from Chapter Components is essential if state laws or regulations need to be changed. Second, determine exactly what laws or regulations need changed before taking action. You may also consult APTA State Government Affairs to discuss the laws in your state.

4. **Question:* What states have successfully implemented or drafted proposals to implement explicit statutory or regulatory language?
 - a) Colorado/Utah/New Hampshire - PT Practice Acts.
 - b) Nevada/Nebraska/Louisiana - Vet Practice Acts and Regulations.
 - c) New Jersey/Kansas/Alabama - Bills or regulations have been proposed but not enacted upon to date.
 - d) Arizona, Wisconsin, Florida, Oregon, Michigan, New York, West Virginia - States where no language exists, but inquiries about legal practice on animals have been received by the ARSIG President.

* If you serve as a state legislative SIG liaison, or simply stay in touch with current state laws, please notify the SIG President of any updates that are not represented in the list of states above.

California Veterinary Medical Board

The California Veterinary Medical Board (VMB) has tentatively rescheduled the public hearing on the proposed regulatory language to mandate "direct supervision" over all non-vets treating animals for October 21-22, San Diego, CA. The PTs and PTAs practicing in California may need your support to

oppose the VMB language. Representatives from the ARSIG are planning to attend the Vet Board meeting to provide testimony.

All SIG Members

The SIG officers always welcome input from members. If you have any ideas or creative thoughts on how the SIG can better serve your needs, please do not hesitate to contact any of the officers listed on the website.



Summer is here; enjoy the moment!!

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Numerical Lameness Score Intrarater Reliability, Interrater Reliability, and Validity in Canine Gait Assessment

Tammy Wolfe, DPT, PT, CCRP, GCFP

BACKGROUND AND PURPOSE

Among the types of canine gait assessment tools available, use of the force plate is clearly the “gold standard.” However, because of financial, time, and space constraints, most veterinary and animal physical therapy professionals do not have the luxury of using a force plate to analyze the majority of their patients’ gait patterns. In an attempt to create both more objective and universal communication between medical providers and to document progress in rehabilitation, several lameness scales have been created and used. The visual analogue score (VAS), the 0 to 5 lameness scale, and the 0 to 4 lameness scale are a few of the more frequently used scales to describe lameness and changes in gait of canine patients. The purpose of this study was to evaluate the intrareliability, interreliability, and validity of veterinarians and physical therapists using a numerical 0 to 5 lameness scale to assess lameness in dogs.

Previous reliability and validity studies have compared various aspects of lameness and various types of scales. One study compared clinician and owner VAS to force plate analysis in 9 dogs with a diagnosis of fragmented medial coronoid process and found that there was a minimal correlation between owner VAS and force plate analysis and no correlation between clinician VAS and force plate analysis when taken at one, two, 6, and 12 months postdiagnosis.¹ Another study assessed the validity of a VAS questionnaire for use in assessing pain and lameness

in dogs. Forty-eight dogs with mild to moderate lameness were assessed by the owners using an analogue questionnaire with 39 questions. Only 19 of the questions showed moderate repeatability of $> .6$.²

A third study evaluated the agreement between numerical rating scales (NRS), VAS, and force plate gait analysis in dogs. In this study, 3 veterinarians with orthopaedic training rated lameness using the NRS and VAS before surgery, at 4 weeks, and at 8 weeks postsurgery. Interreliability was low with no significant relationships between any observer’s scores and force plate data except in extreme lameness.³ A fourth study comparing numerical gait analysis with force plate analysis before and after induced lameness in normal dogs showed a low correlation between scores obtained from vets with orthopaedic training and veterinary students and the force plate analysis.⁴

METHODS

In this study, 19 consecutive dogs arriving at a canine physical therapy office on a randomly selected day were videotaped by a third year physical therapy student with no canine experience. This was a double blind process, where neither the student nor the clients were aware of why they were being filmed. Two videos were recorded. The first video was from a lateral viewpoint and the second video was from a cranial/caudal viewpoint. Each video filmed the dogs walking 140 to 150 feet on a smooth surface.

Each video was numbered, transferred to a CD, and sent to 5 canine-certified physical therapists and 5 general practice veterinarians with the scale described as below:

- 0/5 = Normal gait pattern
- 1/5 = Mild lameness, needing a trained eye to see
- 2/5 = Moderate lameness with a normal stride length and partial weight bearing
- 3/5 = Moderate lameness with shorter stride length and partial weight bearing
- 4/5 = Severe lameness with toe touch weight bearing and minimal use of the limb
- 5/5 = Nonweight bearing

The physical therapists and veterinarians returned the score sheet. In 6 to 8 weeks, they received another CD with identical videos in a different order. They scored each video again and returned the score sheets.

RESULTS

Intrarater reliability and interrater reliability were zero to moderate. The highest intrarater correlation was .84 and the lowest was .26. And the median was .47 when all 10 evaluators were considered. The physical therapist group intrarater reliability was a moderate .58 and score correlation in the veterinarian group was a low .37 correlation. Interrater reliability was based on the number of dogs that everyone in the group scored identically. Among the physical therapists, the score correlation was a low .16, and among the veterinarians, the correlation was zero.

DISCUSSION

In previous studies, several types of lameness scales were compared over a period of time and the lameness score of each dog in the study could have changed. In an attempt to limit variables, this study did not compare different gait samples over a period of time and did not attempt to compare different types

of lameness scales to each other. The idea behind the study was that, even if lameness scoring varied from person to person, if the intrarater reliability scores were high, at least documentation of a single medical professional would be reliable in showing changes in lameness over time. This hypothesis proved to be false in this study. It is possible that orthopaedic-trained veterinarians may have scored higher in both intrarater and interrater reliability than general practice veterinarians. It is also possible that additional training in scoring may have increased the intra- and interreliability scores for all participants.

In conclusion, the veterinary profession continues to be primarily subjective in analysis of canine gait and lameness. The 0 to 5 scale does not appear to be a valid form of gait analysis for most individuals to use to show changes in gait or to use as an outcome measure. It can be, however, moderately valid to use when charting progress of an individual dog by one practitioner. A more valid universal, objective lameness analysis scale would be beneficial so that physical therapists and veterinary professionals can accurately document changes in lameness with confidence in the objectivity of their observations.

ACKNOWLEDGEMENT

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