Professional Practice Analysis

of the

American Veterinary Chiropractic Association

and

Animal Chiropractic Certification Commission

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Update to the Professional Practice Analysis and Recommendations

Introduction

The Professional Practice Analysis (PPA) was completed in 2009 with a report to the AVCA and ACCC by Doug Lawson, ACCC public member, in October of that year. The ACCC certification examination was changed to reflect the results of the professional practice analysis. At the Orlando conference of the AVCA on November 11, 2016, Maria and Doug Lawson facilitated a workshop to update the PPA. At that conference it was revealed that the breadth of animal chiropractic activities is large, but that the depth of activities focused on a few key tasks. In addition it was learned that there had been a slight shift in animal chiropractic activities and that the certification examination might benefit from updates. In moving forward with the updates in Orlando, it became apparent that not all educational programs covered the new material. In order to ensure complete opportunity for input by all members of the AVCA (and reduce possible opposition), an online update for the professional practice analysis was designed and implemented. The purpose of this document is to report on the results and to make recommendations for next steps for the certification examination.

In March of 2018, 215 randomized individuals from the AVCA membership were sent an invitation, through Mail Chimp, to participate in the survey. Mail Chimp reported that 108 (50%) individuals opened the email and 20.5% actually clicked on the link to the survey. It should be noted that the industrial averages are 19.3% and 3.0% for opening and clicking through. A second notice was sent out on March 20, 2018.

On March 26, 2018 the remaining members of the AVCA were invited to participate in the survey with a lightly lower opening and clicking through rate (41.6% and 15% respectively). In total there were 107 individuals who completed parts or all of the survey. Of those who informed us of their professional designation, 52 were doctors of chiropractic, 52 were doctors of veterinary medicine or equivalent, and one was both.

Results

Table 1 provides the results of the professional practice analysis (PPA) for the frequency, risk and importance of tasks in which animal chiropractors are commonly engaged.

Table 1
Frequency: As an animal chiropractor,
how frequently do you perform each of the following tasks?
Risk: This is a global risk assessment, including risk
to patients, clients, handlers, and the profession's reputation.
Importance: Frequency X Risk
(sorted from most to least)

	Frequency*	**Risk****	**Importance**
Perform a chiropractic adjustment	4.47	1.49	6.68
Instruct the handler	4.10	1.31	5.36
Evaluation and clinical assessment	4.47	1.19	5.30
Perform adjunctive care	3.65	1.36	4.98
Communicate a diagnosis	3.91	1.05	4.12
Communicate home care	4.30	0.92	3.93
Communicate a treatment plan	4.28	0.88	3.75
Communicate a clinical assessment	4.41	0.85	3.73
Give a report of findings to the client	4.20	0.81	3.39
Arrange for further veterinary care	3.38	0.99	3.35
Communicate a summary of the visit and instructions	4.00	0.83	3.31
Obtain history of patient	4.33	0.72	3.14

Note: Frequency: 0=Never, 1=Few times a year (1-6), 2=Monthly, 3=Weekly, 4=Daily, 5=Multiple times daily.
Risk: 0=No risk, 1=Mild risk, 2=Moderate risk, 3=Significant risk, 4=Severe risk.
Importance: average frequency score times average risk score

Table II lists the procedures (chiropractic techniques) used by animal chiropractors as reported in the survey.

Table II
Procedures / Chiropractic Techniques
(sorted from most important to least)

	Frequency*	Risk**	Importance
Diversified	3.91	1.26	4.92
Trigger point therapy	3.04	0.95	2.88
Active release technique	2.53	0.96	2.42
Functional neurology	2.68	0.81	2.17
Gonstead style	1.67	1.16	1.95
Cranial sacral	1.81	0.87	1.58
Activator	1.32	1.16	1.53
Sacro-occipital	1.56	0.89	1.38
Applied kinesiology	1.58	0.79	1.26
Other	1.71	0.71	1.21

Note: Frequency: 0=Never, 1=Few times a year (1-6), 2=Monthly, 3=Weekly, 4=Daily, 5=Multiple times daily.
Risk: 0=No risk, 1=Mild risk, 2=Moderate risk, 3=Significant risk, 4=Severe risk.
Importance: average frequency score times average risk score

For those animal chiropractors participating in the survey, Table III lists their style of practice or practice characteristic.

Table III
Practice Characteristic

	n=	Percentage
Function based	98	94.23%
Pain based	82	78.85%
Subluxation based	89	85.58%
Tonal based	42	40.38%
Evidence based	66	63.46%
Other	6	5.77%

Discussion

There are some interesting points to be considered which arise from the tables. It should be noted that the certification examination should be assessing those skills that are common and contain a relevant amount of risk. The certification examination must also be consistent with the current legislation and future direction of the profession. The impact of legislation and future direction must be guided by the Board and its Commission.

Of note in Table 1 is the importance of communicating a diagnosis. This was surprising as it was expected that for many of the chiropractors the answer would be “Never” and diagnosis might be considered the exclusive scope of veterinary medicine. Table IV shows the professional breakdown on this question for frequency.

Table IV
Communicating a Diagnosis

	Never	Few	Monthly	Weekly	Daily	Multiple Daily
Doctor of chiropractic	19%	4%	5%	17%	23%	33%
Doctor of veterinary medicine	0%	2%	0%	4%	17%	77%

Note: Frequency: Never, Few times a year (1-6), Monthly, Weekly, Daily, Multiple times daily.

It is possible that some of the animal chiropractors who are doctors of chiropractic may have responded on the basis that communicating a subluxation is the same as communicating a diagnosis.

Of significant relevance to the certification examination is Table II and the information on types of chiropractic procedures /chiropractic techniques. Diversified technique has the highest frequency of use and the greatest associated risk if performed incorrectly thus the highest importance (3.91x1.26=4.92). No other technique has an importance greater than 3.0.

Table III lists how practitioners describe their practices. Over 94% described their practices as Function based and 85.6% as Subluxation based. Practitioners could pick more than one description and 84 (85.7%) of the doctors who selected Function based also selected Subluxation based and 94% of those indicating Subluxation based also selected Function

based. It is interesting to note that of the 66 animal chiropractors that selected Evidence based to describe their practice, 64 or 97% also selected Function based.

Recommendations

Only the Commission and the Board can provide how this information can be used to improve the certification examination. Future direction can be guided by the professional practice analysis, but guidance as far as the future of animal chiropractic and potential legislative conflict must come from the Commission and Board.

Based on the updated PPA, it appears that the task of assessment and evaluation needs to be assessed as part of the certification examination. Up to this point the current examination has focused on the chiropractic adjustment and safety. The following recommendations are suggested for consideration.

Written Examination

The written should be updated to include more questions which address the following competencies:

- successful candidates will demonstrate competency in the intricacies of the chiropractic adjustment.
- successful candidates will demonstrate competency in the ability to instruct a handler.
- successful candidates will demonstrate competency in evaluation and arriving at a clinical assessment.
- successful candidates will demonstrate competency in performing adjunctive care.
- successful candidates will demonstrate competency in communicating home care.

Practical Examination

The practical should be updated to include more scenarios which address the following competencies:

- successful candidates will be competent in demonstrating and explaining the diversified chiropractic adjustment.
- successful candidates will be competent in demonstrating and explaining instructions to handlers.
- successful candidates will be competent in performing and explaining an evaluation and arriving at a clinical assessment.
- successful candidates will be competent in demonstrating and explaining adjunctive care.
- successful candidates will demonstrate competency in communicating home care.

Respectfully submitted

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Professional Practice Analysis

of the

American Veterinary Chiropractic Association

and the

Animal Chiropractic Certification Commission

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Introduction

This document is my report on the professional practice analysis (PPA) completed for the Animal Chiropractic Certification Commission (Commission) of the American Veterinary Chiropractic Association (AVCA). The report is based on my activities for the Commission for the last three years. This project would not have been able to be completed without the help of Maria Lawson and Leslie Means.

Qualifications and Biases of the Author

The author's most recently completed advanced degree is a Master of Science in Medical Education from the University of Calgary. I was attached to the Faculty of Medicine at that university for some 6 years. I completed the M.Sc. in 2003 and was completing a Ph.D. in Medical Education (psychometrics) when I withdrew due to health problems. The course work was completed as well as the research project being published. The candidacy examinations had been passed, and I was scheduled to defend my dissertation in the Fall of 2006. In April 2006 I underwent heart surgery and withdrew from the program: initially temporarily and then finally in the Spring of 2007. I have published over 15 articles in the area of psychometrics in peer-reviewed, journals (www.chiroindex.org or PubMed for abstracts). I have a professional degree (doctor of chiropractic diploma) from Cleveland Chiropractic College (1976) and a Bachelor of Arts in Economics (minor in Mathematics) from the University of Calgary (1971).

Although I am sure there are some politics within the animal chiropractic field, I am not really aware of them. No group has approached me and asked that the PPA be structured, altered, or reported in a way that would reflect a particular view. Although I have attempted to ensure that the report not reflect my own biases, I should declare that I practiced a musculoskeletal practice for 20-years (leaving practice in 1995) and focused on a best evidence model of practice - or in current terminology, evidence informed.

Any errors or omissions with regard to this document are the sole responsibility of the author. If I have forgotten to thank someone, please accept my apology.

Steps in Completing the PPA

Prior to the Houston AVCA convention (2007) and meeting of the Commission, I discussed with the Commission Chair and the Examinations Committee the need for a professional practice analysis. In order to prepare for the Houston AGM, I performed a medical literature search on the terms: practice analysis, professional practice analysis, task analysis, and job analysis. I also reviewed the National Board of Chiropractic Examiners self-published book, although this has not been adequately published in the peer-reviewed scientific literature. Based on the reviews, I recommended to the Commission that the project be called a professional practice analysis as neither veterinarians or chiropractors have "jobs".

Also at the Houston convention, a focus group was scheduled with the education directors. To prepare for the focus group I performed a search on Medline, Pubmed, and chiroindex.org on each on the individuals who had been identified as a possible attendee at the focus group. My goal was to read all the published abstracts and if possible the published articles of the attendees. This took surprisingly little time. At the time of the search, no prospective attendees had published in peer-reviewed, refereed journals. The focus group meeting with the education directors was a real eye-opener. This was a major reality check for me. The reality check includes the following issues:

- the animal chiropractic courses are 210 hour each, many with 5-modules.
- concomitant veterinary care is either legislated or assumed, but never excluded.
    - 3-states allow chiropractors to adjust animals on their own
    - 10-states provide for direct supervision
    - 7-allow adjustment with referral from a vet
    - 25 don't allow the adjustment of animals by a chiropractor
    - 5 are unknown
    - (thanks to Parker College for the survey)

- most high-stakes examinations function as a gateway to the profession - fail the examination and you are pumping gas instead of practicing. This is not true of the AVCA examination, where unsuccessful candidates are still able to practice animal chiropractic in most states and provinces.

Since that focus group, my thoughts on the possible types of examinations are as follows. First, we have two significant groups, one that has the necessary knowledge, skills, attitudes, and legislation to treat animals. The second group has the necessary knowledge, skills, attitudes, and legislation to apply the philosophy, art and science of chiropractic to humans. The examination of the Commission must be based on the amount that the two groups overlap. The smallest amount of overlap would be where veterinarians learn the necessary additional knowledge and skills to apply the philosophy, science, and art of chiropractic adjusting to animals, and chiropractors learn the necessary knowledge and skills to apply the philosophy, science, and art of chiropractic adjusting to animals. With the programs being 210 hours long, this may indeed represent the amount of overlap that the Commission should be testing. A larger overlap would place more responsibility on the chiropractic group to gain sufficient additional skills (diagnostic, orthopedic, neurologic, physical examination, etc) to treat animals. If the latter model is the one accepted by the Commission, then the educational standards of the Animal Chiropractic Accreditation Commission (ACAC) should so reflect. I expect that the number of hours required of the programs would have to significantly increase. It is important to start at the beginning of the process; with the ACAC and the educational institutions. Change should start at the beginning, and not at the end of the process.

All of the above points to the need to keep moving on the PPA. After the focus group with the education directors, the following steps have been taken.

- changed the initial interview form and incorporating the suggestions/ recommendations of the education directors.
- interviewed 10 randomly selected animal chiropractors at the AGM. We found that the random interviews suggested that no one's perception of what animal chiropractors do (commissions, AVCA, education directors) is fully in agreement with others.
- observed and talked with the display table representatives at the AGM to understand what products and services are being offered to animal chiropractors
- reviewed the list of official suppliers to the AGM to understand what types of groups are interested in engaging in business relationships with animal chiropractors.
- reviewed the accreditation standards and the educational standards of the Animal Chiropractic Accreditation Commission.
- reviewed the state legislative summary as provided by Parker College of Chiropractic. We understand that this is not without controversy, but it is an excellent starting place.
- changed (once again) the draft interview form.
- created a draft survey form

Based on the results of the Houston meetings, pilot test, and feedback the final survey was developed and approved by the Certification Commission in February 2009. It was decided that the PPA should be inclusive to ensure all those with an interest were heard. An initial randomly selected group would receive all the surveys, and be repeatedly encouraged to respond. In addition, all those with an e-mail address in the AVCA database would be given the opportunity to respond to all parts of the survey (by breaking down the survey into three parts, it was hoped that animal chiropractors wouldn't be overwhelmed by the larger survey). In addition, a survey was designed, reviewed by a focus group, pilot tested, and refined to gather input from animal chiropractic clients.

To assist in reducing the costs of the PPA, regular mail was contrasted to an e-mail process. Due to the significant cost reduction (postage, paper, data-entry) of the e-mail approach, a year's subscription to Survey Monkey was proposed in a budget approved by the AVCA Board. The following list provides the dates that the survey links were sent out to the animal chiropractic profession.

- March 5, 2009: e-mail link to 104 randomly selected members from the AVCA database
- March 8, 2009: e-mail reminder to the randomly selected members
- March 10, 2009: e-mail link to 480 doctors from the AVCA database (frequency portion of survey)
- March 13, 2009 e-mail link to 480 doctors from AVCA database (perceived risk portion of survey)

- March 20, 2009 e-mail link to 480 doctors from AVCA database (demographic portion of survey)
- March 27, 2009 e-mail link to 520 doctors from AVCA database (client survey portion)
- March 27, 2009 web page link on the AVCA web page for client access

On August 17th, 2009 the surveys were closed (all except the Client Survey) and the data exported for analysis.

Analysis of Data: Client Survey (n=255)

An animal survey was completed to provide guidance to the PPA. Past studies have revealed a disconnect between health care professionals (why they believe patients are seeing them) and patients/clients (why they believe they are seeking care). The client survey started as a list of open ended questions. After some 25 responses, the open ended questions were changed if favor of a selection format, reviewed in focus groups and then pilot tested. The survey was then updated and then made available through the AVCA members and with direct access by clients off the AVCA website.

Note on understanding the tables. For the most part, the important column in the tables is the far right hand column. That column gives the results for all participants in the survey. The 2nd through 5th columns are an analysis by subgroup so that we can compare the differences between DCs and DVMs or between Female or Male animal chiropractic professionals. The most common response is in bold for each column.

Question 1: What is the purpose of your visit today? Please check all that apply.

	DC	DVM	Female	Male	Total
Scheduled checkup	33%	30%	32%	32%	28%
Spinal pain (from tip of head to end of tail)	33%	27%	26%	32%	27%
Extremity pain (shoulders, hips, etc)	27%	38%	17%	41%	28%
Visceral issues (stomach, kidney, liver, heart, lung, etc)	8%	11%	8%	8%	7%
Overall wellness	38%	38%	42%	38%	36%
Health maintenance	44%	**46%**	48%	49%	42%
Improve performance	39%	32%	39%	39%	35%
Improve gait	40%	38%	36%	46%	38%
Improve mobility	**52%**	41%	**52%**	**53%**	**48%**
Other	9%	16%	12%	5%	11%

Question 2: How happy are you with the care offered your animal?

	DC	DVM	Female	Male	Total
Very unhappy	4.6%	5.4%	2.8%	5.4%	4.5%
	1.3%	0.0%	0.9%	1.4%	0.8%
	0.7%	2.7%	0.9%	1.4%	1.2%
	0.0%	0.0%	0.0%	0.0%	0.4%
Neutral	1.3%	2.7%	0.9%	4.1%	3.7%
	0.0%	2.7%	0.0%	0.0%	1.2%
	0.7%	0.0%	0.0%	0.0%	0.4%
	5.3%	16.2%	5.5%	6.8%	7.4%
	16.6%	10.8%	17.4%	14.9%	15.6%
Very happy	**69.5%**	**59.5%**	**71.6%**	**66.2%**	**64.8%**
Rating Average (out of 10)	9.1	8.7	9.3	8.8	9.1

Question 3: How strongly to you agree with the following statements?
(1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Strongly Agree)

	DC	DVM	Female	Male	Total
An animal chiropractic professional is the most appropriate health professional to consult for spinal problems (neck, upper back, lower back, tail).	**4.5**	**4.5**	**4.5**	**4.4**	**4.5**
An animal chiropractic professional is the most appropriate health professional to consult for extremity problems (hips, shoulder, legs, feet, ankles).	4.2	4.1	4.1	4.1	4.2
An animal chiropractic professional is the most appropriate health professional to consult for health maintenance and wellness care.	3.7	3.7	3.7	3.7	3.7
An animal chiropractic professional is an appropriate option for the care of all health concerns (other than the spine and extremity).	3.1	3.3	3.1	3.2	3.2

Question 4: Animal chiropractic professionals must have a license to practice as either a chiropractor or a veterinarian. Which is your animal chiropractor?

Note on understanding the table: the columns add to 100%, not the rows.

	Female	Male	All
Doctor of Chiropractic	70.6%	81.1%	**67.0%**
Doctor of Veterinary Medicine	16.5%	9.5%	17.0%
Both	10.1%	5.4%	10.9%
Don't know	2.8%	4.1%	5.2%
Total	100.0%	100.0%	100.0%

Question 4: Is your most recent animal chiropractor a man or a woman?

	DC	DVM	All
Man	43.0%	29.7%	41.3%
Woman	**57.0%**	**67.6%**	**57.8%**
Don't know	0.0%	2.7%	0.9%
Total	100.0%	100.0%	100.0%

Question 6: What type or types of animals did you take to the animal chiropractor on your most recent visit?

	DC	DVM	Female	Male	All
horse(s)	38.4%	24.3%	31.2%	39.2%	35.7%
dog(s)	**68.2%**	**81.1%**	**70.6%**	**71.6%**	**70.9%**
cats(s)	9.3%	18.9%	15.6%	5.4%	10.4%
birds(s)	1.3%	2.7%	0.9%	2.7%	1.3%
other	4.6%	0.0%	0.9%	6.8%	3.0%
Total	100.0%	100.0%	100.0%	100.0%	100.0%

Animal Chiropractic Professionals' Survey

For the purpose of the PPA, a randomly selected group of animal chiropractic professionals was selected. It was critical that we got a good response from this group as it should best represent the profession. Others were provided access to the survey, but as a separate group. In surveys of this type, it is quite possible that a politically motivated group could bias the survey by encouraging full participation by those with a similar bias. Thus the need for a random selection process. This report focuses on the randomly selected group. The open group has been reported under Appendix B. Of the 104 participants picked randomly, 4 were dropped due to incorrect e-mail addresses and 71 responded. This is a 71% return rate, which is very acceptable for this type of survey.

About 70% of the random sample were female and 30% male. About 53% were DCs, 42% DVMs, and 5% held both primary degrees.

Frequency Survey: n=71

Part A: Frequency. Please use the following scales in response to the list of activities. By frequency, we are asking for the ACTIVITY OVER TIME, not the frequency of the activity for each patient or client. For example, if you routinely see multiple new patients each day, then item 1 would be "multiple times daily", even though you may only perform that activity once over the entire course of your relationship with the client. As another example, you may refer to a DVM as necessary, but it depends on the client. We want to know how frequently you have done so over the last year or two. The activity should be as performed by an animal chiropractic professional - not as a doctor of veterinary medicine or doctor of chiropractic. For those activities which you feel are out of your scope of practice, please use the N/A option. Please do not leave any rows blank.
(1=Never, 2=Yearly or less, 3=Monthly, 4=Weekly, 5=Daily, 6=Multiple times daily)

	DC	DVM	Female	Male	All
Discuss animal's health needs with owner	5.0	5.0	5.1	4.7	5.0
Discuss consent to treat	4.8	4.6	4.6	4.9	4.4
Discuss consent for fees	4.1	4.5	4.0	4.8	4.2
Obtain a signed informed consent on the first visit	3.4	2.5	2.9	3.2	2.8
Obtain oral consent on subsequent visits	3.6	4.0	3.6	4.3	3.8
Co-ordinate care with primary DVM (if not you)	3.7	3.5	3.3	3.9	4.7
Obtain/complete a case history from the owner	4.8	5.1	4.8	4.8	4.9
Explain the importance of the nervous system to health	5.0	4.7	4.7	5.1	4.9
Assessment of pain	5.0	5.3	5.1	5.1	5.1
Assessment of alignment	5.1	5.5	5.2	5.3	5.3
Assessment of active range of motion	5.1	5.4	5.1	5.3	5.2
Assessment of tenderness	5.1	5.5	5.2	5.4	5.3
Assessment of temperature	4.4	4.7	4.4	4.7	4.6
Review of systems (bowel, bladder...)	4.4	5.2	4.7	4.8	4.8
Participate in or conduct veterinary exam (non-MSK)	2.4	5.2	3.8	4.4	4.1
Cranial nerve examination	2.9	4.1	3.1	4.0	3.5
Central nervous system examination	3.8	4.2	3.7	4.5	4.0
Peripheral nervous system neurologic examination	4.1	4.6	4.0	4.8	4.3
Gait analysis	5.2	5.0	4.9	5.3	5.1
Posture evaluation	5.2	5.3	5.2	5.4	5.2
Motion palpation	5.2	5.5	5.2	5.4	5.3
Static palpation	5.2	5.5	5.2	5.4	5.3
Provide a report of findings	4.8	4.5	4.3	5.4	4.7
Communicate a diagnosis other than a subluxation	3.6	5.1	4.3	4.5	4.3
Communicate a plan of management	5.0	5.5	5.1	5.2	5.2
Adjust/manipulate an animal's spine	5.2	5.4	5.2	5.4	5.3
Adjust/manipulate an animal's cranial bones	3.8	3.4	3.5	3.7	3.6
Adjust/manipulate an animal's extremity	5.0	5.4	5.0	5.2	5.1
Manual adjustment of the animal	5.2	5.4	5.1	5.4	5.3
Adjustment of the animal with the use of an instrument	2.1	1.5	1.6	2.5	1.9
Table assisted adjustment of the animal	1.3	1.3	1.2	1.5	1.3
Use of other modalities (cold, heat, etc.)	2.7	4.1	3.2	3.3	3.4
Recommend/prescribe rehab	4.2	4.4	4.0	4.6	4.2
Schedule follow up visit	5.1	5.3	5.1	5.1	5.1
Contact owner for call back	4.2	4.0	4.1	3.9	4.1
Provide home care instructions for the owner	5.1	4.8	4.8	5.1	5.0

	DC	DVM	Female	Male	All
Co-ordinate follow up care with primary veterinarian	3.6	3.7	3.2	4.1	3.6
Provide a written report to the DVM	2.8	3.0	2.6	3.1	2.8

Part B: Relative Risk: By relative risk, we are asking for your opinion with regard to how much risk is there to the client, animal and the profession of animal chiropractic if the activity is NOT carried out correctly. The activity should be as performed by an animal chiropractic professional - not as a doctor of veterinary medicine or doctor of chiropractic. For those activities which you feel are out of your scope of practice, please check the N/A option. Please do not leave any rows blank.
(1=Absolutely no risk, 2= Some risk, 3=Moderate risk, 4=More risk, 5=Very risky)

	DC	DVM	Female	Male	All
Discuss animal's health needs with owner	2.6	2.6	2.8	1.9	2.6
Discuss consent to treat	2.6	2.7	3.0	1.8	2.7
Discuss consent for fees	2.1	2.4	2.4	1.8	2.2
Obtain a signed informed consent on the first visit	2.5	2.1	2.5	1.6	2.3
Obtain oral consent on subsequent visits	2.1	2.4	2.4	1.7	2.1
Co-ordinate care with primary DVM (if not you)	2.8	2.8	3.0	2.2	2.7
Obtain a case history from the owner	2.8	2.7	3.1	1.6	2.8
Explain the importance of the nervous system to health	2.3	2.0	2.3	1.7	2.2
Assessment of pain	3.1	3.3	3.3	2.9	3.2
Assessment of alignment	3.3	3.1	3.3	2.9	3.2
Assessment of active range of motion	3.3	3.4	3.4	3.1	3.3
Assessment of tenderness	3.2	3.4	3.3	3.0	3.3
Assessment of temperature	2.7	2.8	2.8	2.5	2.7
Review of systems (bowel, bladder...)	3.0	2.8	2.9	2.5	2.9
Participate in or conduct veterinary exam (non-MSK)	2.8	3.4	3.2	2.8	3.1
Cranial nerve examination	2.9	2.3	2.4	3.0	2.6
Central nervous system examination	3.2	2.9	3.0	3.1	3.0
Peripheral nervous system neurologic examination	3.2	3.0	3.0	3.1	3.1
Gait analysis	3.3	3.4	3.4	3.1	3.2
Posture evaluation	3.2	3.1	3.1	2.9	3.1
Motion palpation	3.3	3.2	3.2	2.9	3.1
Static palpation	3.1	3.1	3.3	2.9	2.8
Provide a report of findings	2.7	2.5	2.9	1.9	2.6
Communicate a diagnosis other than a subluxation	3.0	3.2	3.2	3.0	3.2
Communicate a plan of management	2.8	3.0	3.2	2.3	3.0
Adjust/manipulate an animal's spine	3.6	3.9	3.9	3.3	3.7
Adjust/manipulate an animal's cranial bones	3.6	3.6	3.7	3.2	3.5
Adjust/manipulate an animal's extremity	3.6	3.9	3.8	3.4	3.7

	DC	DVM	Female	Male	All
Manual adjustment of the animal	3.6	3.8	3.8	3.3	3.7
Adjustment of the animal with the use of an instrument	3.8	4.0	4.1	3.6	4.0
Table assisted adjustment of the animal	3.7	3.9	3.9	3.6	3.9
Use of other modalities (cold, heat, etc.)	3.0	2.7	2.9	2.5	2.8
Recommend/prescribe rehab	2.9	2.8	2.9	2.6	2.8
Schedule follow up visit	2.3	2.3	2.5	1.9	2.3
Contact owner for call back	2.0	2.1	2.3	1.5	2.1
Provide home care instructions for the owner	2.6	2.9	2.8	2.5	2.8
Co-ordinate follow up care with primary veterinarian	2.4	2.8	2.7	2.2	2.6
Provide a written report to the DVM	2.2	2.6	2.4	2.1	2.4

Demographic Questions

Question 13: What is your primary degree (the degree under which you are licensed / registered to practice in your state/province or country?

			Female	Male	All
Doctor of Chiropractic			48.7%	68.8%	52.6%
Doctor of Veterinary Medicine (or equivalent)			43.6%	31.3%	42.1%
Both			7.7%	0.0%	5.3%

Question 14: Are you male or female? This question will assist us in determining differences in practice.

	DC	DVM			All
Male	36.7%	22.7%			29.8%
Female	63.3%	77.3%			70.2%

Question 15: Does your practice include primarily:

	DC	DVM	Female	Male	All
Large animals	13.3%	4.5%	2.6%	25.0%	8.8%
Small animals	20.0%	31.8%	33.3%	6.3%	24.6%
Both	66.7%	63.6%	64.1%	68.8%	66.7%

Question 16: Does your practice also include exotic animals?

	DC	DVM	Female	Male	All
No	33.3%	59.1%	53.8%	25.0%	45.6%
Yes	26.7%	18.2%	17.9%	31.3%	22.8%
Rarely	40.0%	22.7%	28.2%	43.8%	31.6%

Question 18: Is your practice principally rural or urban?

	DC	DVM	Female	Male	All
Rural	20.0%	36.4%	28.2%	25.0%	28.1%
Urban	13.3%	18.2%	23.1%	6.3%	19.3%
Both	66.7%	45.5%	48.7%	68.8%	52.6%

Question 19: Are you currently practicing animal chiropractic?

	DC	DVM	Female	Male	All
No	0.0%	0.0%	0.0%	0.0%	0.0%
Yes	100.0%	100.0%	100.0%	100.0%	100.0%

Question 20: What percentage of your practice is animal chiropractic?

	DC	DVM	Female	Male	All
	46.5%	49.8%	51.3%	40.6%	47.0%

Question 21: How many hours a week, on average, do you practice animal chiropractic?

	DC	DVM	Female	Male	All
	14.7	18.1	16.1	16.7	15.9

Question 22. If you are a veterinarian (or equivalent), what percentage of your practice is adjustment/ manipulation? If you are a chiropractor, please skip this question. (n=31)

		DVM	Female	Male	All
		46.9%	47.2%	21.1%	39.0%

Question 23. In which types of facilities do you practice animal chiropractic? Please check all that apply.

	DC	DVM	Female	Male	All
Chiropractic facility	53.6%	0.0%	28.9%	33.3%	29.1%
Home office	25.0%	31.8%	31.6%	20.0%	27.3%
Satellite facility	0.0%	9.1%	5.3%	0.0%	3.6%
Veterinary facility	46.4%	**68.2%**	52.6%	60.0%	56.4%
Client facilities	**78.6%**	63.6%	**63.2%**	**86.7%**	**70.9%**

Question 24: Are you a member of the American Veterinary Chiropractic Association?

	DC	DVM	Female	Male	All
No	10.7%	18.2%	18.4%	0.0%	12.7%
Yes	89.3%	81.8%	81.6%	100.0%	87.3%

Creation of Index of Importance (frequency X risk)

The table of contents for a certification examination must be based on a professional practice analysis. Those content areas for which candidates are responsible and for which they must demonstrate competence must be based on activities that are frequently performed by animal chiropractic professionals and that carry a suitable level of risk (to patients, clients, the public, or the profession). The table in Appendix D was created by multiplying the frequency of the activities, as reported by the survey respondents, by the relative risk, as estimated by the survey respondents. In **Appendix D**, this estimate of importance was then sorted from higher to lower by the column "Importance Total". The challenge to the Commission has now become "From how far down the list are activities to be included in the examination content".

As a starting point, we could include those activities that represent a minimum of daily frequency and moderate risk. This point would be a frequency of 5 times a risk of 3; or, an importance estimate of 15. At the convention workshop, the participants will be asked to make a recommendation for the consideration of the Commission about this point. Appendix A includes information for all subgroups, as subgroup information may be important in setting the final cut-point for inclusion. For example, the activity "participate in or conduct veterinary exam (non-MSK)" has a lower frequency, risk and importance estimate for DCs (6.72) than for DVMs (17.68). The facilitator for the workshop will be asking for open discussion about the activities that should be recommended to the Commission for assessment.

If time allows at the workshop, the results from the call for input from all animal chiropractors (Open Group) will be reviewed and compared to the randomly selected group. The Open group consisted of about 95 practitioners. About 45% were DCs and 55% were DVMs. About 61% were females and 39% were males. The Importance Table from the Open Group can be found under Appendix B. The Importance tables will be compared and contrasted to ensure that the recommendation to the Commission has considered all possible input. If there is insufficient time at the workshop, then this job will be the responsibility of the Commission.

Next Steps

After feedback from the workshops, the Commission will have the responsibility of creating an examination blueprint from the PPA. The Commission will then need to determine the weight applied to the content areas, and the best method to assess the unique knowledge, skills, and attitudes of animal chiropractic professionals. Possible options include, but are not limited to: supply type questions (fill in the blanks, short answer, essay), multiple-choice questions, extended-matching questions, orals, and objective structured practical examinations (OSPEs). At that point, the information must be sent to all stakeholders for critical review and feedback. The challenge then before the Commission will be to create, update, and maintain its databank of questions and stations for use by an examinations committee.

Respectfully submitted by,

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Appendix A
Randomized Group
Estimate of Importance

	Frequency					Risk					Importance				
	DC	DVM	Female	Male	Total	DC	DVM	Female	Male	Total	DC	DVM	Female	Male	Tota
Adjust/manipulate an animal's spine	5.20	5.40	5.20	5.40	5.30	3.60	3.90	3.90	3.30	3.70	18.72	21.06	20.28	17.82	19.61
Manual adjustment of the animal	5.20	5.40	5.10	5.40	5.30	3.60	3.80	3.80	3.30	3.70	18.72	20.52	19.38	17.82	19.61
Adjust/manipulate an animal's extremity	5.00	5.40	5.00	5.20	5.10	3.60	3.90	3.80	3.40	3.70	18.00	21.06	19.00	17.68	18.87
Assessment of tenderness	5.10	5.50	5.20	5.40	5.30	3.20	3.40	3.30	3.00	3.30	16.32	18.70	17.16	16.20	17.49
Assessment of active range of motion	5.10	5.40	5.10	5.30	5.20	3.30	3.40	3.40	3.10	3.30	16.83	18.36	17.34	16.43	17.16
Assessment of alignment	5.10	5.50	5.20	5.30	5.30	3.30	3.10	3.30	2.90	3.20	16.83	17.05	17.16	15.37	16.96
Assessment of pain	5.00	5.30	5.10	5.10	5.10	3.10	3.30	3.30	2.90	3.20	15.50	17.49	16.83	14.79	16.32
Motion palpation	5.20	5.50	5.20	5.40	5.30	3.30	3.20	3.20	2.90	2.96	17.16	17.60	16.64	15.66	15.66
Communicate a plan of management	5.00	5.50	5.10	5.20	5.20	2.80	3.00	3.20	2.30	3.00	14.00	16.50	16.32	11.96	15.60
Static palpation	5.20	5.50	5.20	5.40	5.30	3.10	3.10	3.30	2.90	2.93	16.12	17.05	17.16	15.66	15.55
Gait analysis	5.20	5.00	4.90	5.30	5.10	3.30	3.40	3.40	3.10	2.90	17.16	17.00	16.66	16.43	14.80
Posture evaluation	5.20	5.30	5.20	5.40	5.20	3.20	3.10	3.10	2.90	2.84	16.64	16.43	16.12	15.66	14.75
Provide home care instructions for the owner	5.10	4.80	4.80	5.10	5.00	2.60	2.90	2.80	2.50	2.80	13.26	13.92	13.44	12.75	14.00
Review of systems (bowel, bladder...)	4.40	5.20	4.70	4.80	4.80	3.00	2.80	2.90	2.50	2.90	13.20	14.56	13.63	12.00	13.92
Communicate a diagnosis other than a subluxation	3.60	5.10	4.30	4.50	4.30	3.00	3.20	3.20	3.00	3.20	10.80	16.32	13.76	13.50	13.76
Obtain/complete a case history from the owner	4.80	5.10	4.80	4.80	4.90	2.80	2.70	3.10	1.60	2.80	13.44	13.77	14.88	7.68	13.72
Peripheral nervous system neurologic examination	4.10	4.60	4.00	4.80	4.30	3.20	3.00	3.00	3.10	3.10	13.12	13.80	12.00	14.88	13.33
Discuss animal's health needs with owner	5.00	5.00	5.10	4.70	5.00	2.60	2.60	2.80	1.90	2.60	13.00	13.00	14.28	8.93	13.00
Participate in or conduct veterinary exam (non-MSK)	2.40	5.20	3.80	4.40	4.10	2.80	3.40	3.20	2.80	3.10	6.72	17.68	12.16	12.32	12.71
Co-ordinate care with primary DVM (if not you)	3.70	3.50	3.30	3.90	4.70	2.80	2.80	3.00	2.20	2.70	10.36	9.80	9.90	8.58	12.69
Adjust/manipulate an animal's cranial bones	3.80	3.40	3.50	3.70	3.60	3.60	3.60	3.70	3.20	3.50	13.68	12.24	12.95	11.84	12.60
Assessment of temperature	4.40	4.70	4.40	4.70	4.60	2.70	2.80	2.80	2.50	2.70	11.88	13.16	12.32	11.75	12.42
Provide a report of findings	4.80	4.50	4.30	5.40	4.70	2.70	2.50	2.90	1.90	2.60	12.96	11.25	12.47	10.26	12.22
Central nervous system examination	3.80	4.20	3.70	4.50	4.00	3.20	2.90	3.00	3.10	3.00	12.16	12.18	11.10	13.95	12.00
Discuss consent to treat	4.80	4.60	4.60	4.90	4.40	2.60	2.70	3.00	1.80	2.70	12.48	12.42	13.80	8.82	11.88
Recommend/prescribe rehab	4.20	4.40	4.00	4.60	4.20	2.90	2.80	2.90	2.60	2.80	12.18	12.32	11.60	11.96	11.76
Schedule follow up visit	5.10	5.30	5.10	5.10	5.10	2.30	2.30	2.50	1.90	2.30	11.73	12.19	12.75	9.69	11.73
Explain the importance of the nervous system to health	5.00	4.70	4.70	5.10	4.90	2.30	2.00	2.30	1.70	2.20	11.50	9.40	10.81	8.67	10.78
Use of other modalities (cold, heat, etc.)	2.70	4.10	3.20	3.30	3.40	3.00	2.70	2.90	2.50	2.80	8.10	11.07	9.28	8.25	9.52
Co-ordinate follow up care with primary veterinarian	3.60	3.70	3.20	4.10	3.60	2.40	2.80	2.70	2.20	2.60	8.64	10.36	8.64	9.02	9.36
Discuss consent for fees	4.10	4.50	4.00	4.80	4.20	2.10	2.40	2.40	1.80	2.20	8.61	10.80	9.60	8.64	9.24
Cranial nerve examination	2.90	4.10	3.10	4.00	3.50	2.90	2.30	2.40	3.00	2.60	8.41	9.43	7.44	12.00	9.10
Contact owner for call back	4.20	4.00	4.10	3.90	4.10	2.00	2.10	2.30	1.50	2.10	8.40	8.40	9.43	5.85	8.61
Obtain oral consent on subsequent visits	3.60	4.00	3.60	4.30	3.80	2.10	2.40	2.40	1.70	2.10	7.56	9.60	8.64	7.31	7.98
Adjustment of the animal with the use of an instrument	2.10	1.50	1.60	2.50	1.90	3.80	4.00	4.10	3.60	4.00	7.98	6.00	6.56	9.00	7.60
Provide a written report to the DVM	2.80	3.00	2.60	3.10	2.80	2.20	2.60	2.40	2.10	2.40	6.16	7.80	6.24	6.51	6.72
Obtain a signed informed consent on the first visit	3.40	2.50	2.90	3.20	2.80	2.50	2.10	2.50	1.60	2.30	8.50	5.25	7.25	5.12	6.44
Table assisted adjustment of the animal	1.30	1.30	1.20	1.50	1.30	3.70	3.90	3.90	3.60	3.90	4.81	5.07	4.68	5.40	5.07
Maximum Possible	6	6	6	6	6	5	5	5	5	5	30.00	30.00	30.00	30.00	30.00
High	5.20	5.50	5.20	5.40	5.30	3.80	4.00	4.10	3.60	4.00	18.72	21.06	20.28	17.82	19.61
Low	1.30	1.30	1.20	1.50	1.30	2.00	2.00	2.30	1.50	2.10	4.81	5.07	4.68	5.12	5.07
Average	4.24	4.52	4.21	4.57	4.39	2.93	2.97	3.06	2.58	2.91	12.41	13.44	12.89	11.74	12.75
Standard Deviation	1.02	1.06	1.02	0.91	0.98	0.48	0.54	0.48	0.62	0.49	3.80	4.29	3.99	3.76	3.67
Correlation to Total Importance	0.76	0.82	0.83	0.80	0.85	0.49	0.50	0.50	0.41	0.45	0.93	0.95	0.97	0.88	1.00

Moderate risk (3) X Daily (5) = 15

Moderate risk (3) X Weekly (4)=12

Appendix B
Open Group: Estimate of Importance

	Frequency					Risk					Importance				
	DC	DVM	Female	Male	Total	DC	DVM	Female	Male	Total	DC	DVM	Female	Male	Total
Adjust/manipulate an animal's spine	5.06	5.60	5.40	5.29	5.36	3.88	3.88	4.14	3.54	3.91	19.63	21.73	22.36	18.73	20.96
Manual adjustment of the animal	5.06	5.69	5.46	5.33	5.41	3.77	3.86	4.02	3.54	3.82	19.08	21.96	21.95	18.87	20.67
Adjust/manipulate an animal's extremity	4.91	5.36	5.19	5.10	5.16	3.88	3.86	4.02	3.62	3.85	19.05	20.69	20.86	18.46	19.87
Assessment of alignment	5.06	5.61	5.41	5.29	5.36	3.38	3.78	3.81	3.35	3.63	17.10	21.21	20.61	17.72	19.46
Assessment of active range of motion	4.98	5.64	5.39	5.27	5.35	3.33	3.76	3.72	3.41	3.60	16.58	21.21	20.05	17.97	19.26
Assessment of pain	4.83	5.66	5.37	5.15	5.28	3.35	3.88	3.71	3.54	3.64	16.18	21.96	19.92	18.23	19.22
Assessment of tenderness	5.02	5.66	5.40	5.33	5.37	3.38	3.65	3.66	3.35	3.54	16.97	20.66	19.76	17.86	19.01
Obtain/complete a case history from the owner	4.60	5.53	5.15	5.04	5.10	3.55	3.54	3.61	3.46	3.56	16.33	19.58	18.59	17.44	18.16
Discuss animal's health needs with owner	4.66	5.65	5.29	5.06	5.21	3.21	3.61	3.52	3.30	3.42	14.96	20.40	18.62	16.70	17.82
Motion palpation	5.05	5.73	5.43	5.40	5.42	3.30	3.20	3.20	2.90	3.21	16.67	18.34	17.38	15.66	17.41
Static palpation	5.12	5.63	5.40	5.40	5.40	3.10	3.10	3.30	2.90	3.18	15.87	17.45	17.82	15.66	17.15
Posture evaluation	5.03	5.55	5.37	5.23	5.32	3.20	3.10	3.10	2.90	3.24	16.10	17.21	16.65	15.17	17.22
Communicate a plan of management	4.85	5.63	5.37	5.12	5.28	2.95	3.48	3.39	3.03	3.25	14.31	19.59	18.20	15.51	17.16
Gait analysis	4.91	5.36	5.20	5.08	5.16	3.30	3.40	3.40	3.10	3.17	16.20	18.22	17.68	15.75	16.37
Peripheral nervous system neurologic examination	4.17	4.97	4.65	4.60	4.64	3.39	3.46	3.48	3.28	3.41	14.14	17.20	16.18	15.09	15.82
Participate in or conduct veterinary exam (non-MSK)	1.68	5.55	4.45	3.84	4.23	3.29	3.72	3.69	3.48	3.62	5.53	20.65	16.42	13.36	15.31
Provide home care instructions for the owner	4.78	5.43	5.19	5.06	5.14	2.80	2.98	2.98	2.86	2.94	13.38	16.18	15.47	14.47	15.11
Central nervous system examination	3.68	4.77	4.38	4.16	4.31	3.36	3.58	3.48	3.42	3.47	12.36	17.08	15.24	14.23	14.96
Provide a report of findings	4.45	5.19	5.00	4.60	4.86	2.89	3.06	3.07	2.86	3.00	12.86	15.88	15.35	13.16	14.58
Communicate a diagnosis other than a subluxation	3.26	5.23	4.51	4.28	4.43	3.10	3.45	3.24	3.27	3.26	10.11	18.04	14.61	14.00	14.44
Review of systems (bowel, bladder...)	3.64	5.22	4.66	4.30	4.54	3.26	2.96	3.37	2.77	3.16	11.87	15.45	15.70	11.91	14.35
Explain the importance of the nervous system to health	4.80	5.15	5.02	4.94	4.99	2.60	2.85	2.89	2.62	2.78	12.48	14.68	14.51	12.94	13.87
Discuss consent to treat	3.81	4.43	4.35	3.81	4.16	3.23	3.27	3.36	3.08	3.24	12.31	14.49	14.62	11.73	13.48
Recommend/prescribe rehab	3.81	4.58	4.33	4.08	4.24	3.16	2.96	3.31	2.63	3.06	12.04	13.56	14.33	10.73	12.97
Assessment of temperature	3.63	5.15	4.60	4.34	4.51	2.75	2.88	2.90	2.71	2.84	9.98	14.83	13.34	11.76	12.81
Adjust/manipulate an animal's cranial bones	3.22	3.53	3.44	3.30	3.41	3.67	3.84	3.90	3.54	3.75	11.82	13.56	13.42	11.68	12.79
Schedule follow up visit	4.88	5.51	5.29	5.11	5.23	2.33	2.27	2.43	2.22	2.35	11.37	12.51	12.85	11.34	12.29
Cranial nerve examination	2.80	4.15	3.61	3.50	3.59	2.91	3.24	3.13	3.06	3.10	8.15	13.45	11.30	10.71	11.13
Discuss consent for fees	4.00	4.56	4.40	4.15	4.30	2.55	2.56	2.62	2.50	2.56	10.20	11.67	11.53	10.38	11.01
Co-ordinate care with primary DVM (if not you)	3.49	3.91	3.76	3.58	3.70	2.77	2.95	3.02	2.65	2.87	9.67	11.53	11.36	9.49	10.62
Use of other modalities (cold, heat, etc.)	2.40	4.32	3.47	3.51	3.50	3.25	2.87	3.26	2.61	2.99	7.80	12.40	11.31	9.16	10.47
Contact owner for call back	3.98	4.65	4.48	4.13	4.35	2.33	2.21	2.37	2.16	2.28	9.27	10.28	10.62	8.92	9.92
Co-ordinate follow up care with primary veterinarian	3.39	3.73	3.64	3.41	3.59	2.63	2.71	2.78	2.60	2.71	8.92	10.11	10.12	8.87	9.73
Obtain a signed informed consent on the first visit	3.28	3.20	3.27	3.18	3.23	3.05	2.94	2.97	2.97	2.91	10.00	9.41	9.71	9.44	9.40
Obtain oral consent on subsequent visits	3.22	3.72	3.56	3.37	3.48	2.68	2.33	2.46	2.59	2.48	8.63	8.67	8.76	8.73	8.63
Adjustment of the animal with the use of an instrument	2.38	1.73	1.91	2.20	2.01	3.50	4.36	4.05	3.61	3.84	8.33	7.54	7.74	7.94	7.72
Provide a written report to the DVM	2.59	3.23	2.95	2.84	2.90	2.21	2.62	2.40	2.47	2.44	5.72	8.46	7.08	7.01	7.08
Table assisted adjustment of the animal	1.45	1.49	1.33	1.70	1.47	3.58	4.09	4.13	3.27	3.72	5.19	6.09	5.49	5.56	5.47
Maximum Possible	6	6	6	6	6	5	5	5	5	5	30	30	30	30	30
High	5.12	5.73	5.46	5.4	5.42	3.88	4.36	4.14	3.62	3.91	19.63	21.96	22.36	18.87	20.96
Low	1.45	1.49	1.33	1.7	1.47	2.21	2.21	2.37	2.16	2.28	5.19	6.09	5.49	5.56	5.47
Average	4	4.78	4.5	4.34	4.45	3.13	3.27	3.31	3.03	3.21	12.56	15.63	14.93	13.22	14.31
Standard Deviation	1.02	1.07	1.01	0.95	0.98	0.42	0.53	0.5	0.41	0.45	3.92	4.54	4.3	3.69	4.07
Correlation to Total Importance	0.78	0.86	0.87	0.89	0.88	0.54	0.45	0.5	0.54	0.56	0.91	0.97	1	0.99	1