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McNeil D. Early chiropractic history in British Columbia. JCCA 1995; 39(1):46–48.

To the Editor:

I have just finished reading the article, "Early Chiropractic History in British Columbia" by Duncan McNeil in the last Journal, March 1995. I would like to compliment Dunc on a fine contribution to Chiropractic History.

May I also congratulate him on the monumental work that he and his wife did in producing the book, "The History of Chiropractors in British Columbia prior to 1949". This was indeed an outstanding addition to the history of our profession.

Herbert K. Lee, DC
President, Canadian Chiropractic Historical Association,
Toronto, Ontario

Lawson D, Violato C, Marini A, McEwen M. Differential performance on the Canadian Chiropractic Examining Board Examinations: an eight year longitudinal study. JCCA 1995; 39(1): 11–17.

To the Editor:

I believe Drs. Lawson, Violato, Marini, and McEwen's article concerning the differential performance on the Canadian Chiropractic Examining Board examinations by students from different schools will provide for some interesting conversation among both the academia of the schools and Doctors who have written these exams. I do question some of their conclusions. I believe of importance to the discussion is the make-up of the test construction committees. I understand they are composed of five people, a careful mix of subject area experts, general Chiropractors and a PH.D. level expert in testing. However, how closely associated are these professionals with CMCC? What percentage of these committees are made up of representatives from the international colleges and committees? How often do the committees change make-up? Clearly, if the mix is made up of committee members who are graduates from CMCC, educators at CMCC, or are affiliated with such and have direct access to CMCC curriculum notes then the

tests themselves will be biased towards questions directly taken from material taught at CMCC. This gives the students from CMCC taking the tests a tremendous advantage. As an American school graduate, I can specifically state that some of the questions posed on the examinations I had written, my fellow colleagues from CMCC who were writing the same exams had seen before. Verbatim. Therefore, I personally am not surprised that CMCC students do better on the exam but for different reasons than the authors may surmise.

I believe an addendum to this study would be quite valuable. All American students must take American National Boards Part One, Two and Three. Many CMCC students also take these exams. A comparative analysis of the performance of CMCC students relative to the American students for American National Boards would be quite interesting. If the results do not parallel this particular study, then this would likely indicate a major flaw in the authors' conclusion. It certainly would be a good way to substantiate or validate the authors' findings.

Finally, the authors suggest that this study determines the strength and weaknesses of curriculums and contents of different institutions. They also state they can be used for improving the entry selection procedures, curriculum and teaching effectiveness. However, it may also indicate that much of the information, or specifically the depth of the test information, is not considered to be as essential or important to the practice of Chiropractic by other colleges as it does or is to CMCC. While all schools have similar curriculums as dictated by CCE, the emphasis and how the hours of education are allocated between the hard sciences and the clinical skills, varies from school to school. It may be that American colleges ration more time to technical skills, philosophy of life skills, and practice skills, which are directly needed on a daily basis and practice rather than rationing more time to the physiological sciences. I believe a further important follow up to the authors' study should be realized. The tests should be sent back to graduates after five years in practice and the questions should be posed to these Doctors how they would rate the relevance of the questions on their examinations with their daily practice. The same survey could be done again with ten year graduates and fifteen year graduates. That would certainly be an interesting study and may indicate more the need for improving the examinations than the entry selection procedures to colleges as the authors' conclude.

Ultimately, and in the public's best interests, would be an exam which directly measures both the clinical and personal effectiveness of the practitioner and their practice. While the Canadian board exams may measure some form of knowledge, you can never equate knowledge directly with skill or ability. There are a lot of people who know alot about baseball and can criticize the game, however they cannot play the game because it requires intuitive skill, judgment and physical coordination, rather than simply knowledge. I believe with the addition of heart and personal communication skills the relation is similar to the Chiropractic profession. Knowledge alone does not make the Chiropractor superior and every Chiropractor who has even been adjusted knows it.

Finally, I question the need itself for the Canadian Chiropractic examination boards. I believe a standardized examination throughout North America would be in the best interest of Chiropractic and this examination should cover not only knowledge, but technique, ability, skill, caring and heart. I believe only then, can a real assumption be made as to the quality of the students graduating from institutions and their entrance standards.

Dr. L.R. Mestdagh BA, B Comm (Hon), DC
Winnipeg, Manitoba

To the Editor in reply

We would like to thank Dr. Mestdagh for expressing his concerns to the JCCA. We will try to address these in the order in which they are written.

1. His first concern is that the examinations reflect the emphasis at CMCC. The emphasis of the examinations has been determined to date by the use of a modified Delphi technique. Representatives from the following groups were involved in the process; college faculty from all accredited colleges in North America; students from all accredited colleges in North America; field practitioners in Canada; chiropractic patients; members of the public; licensing board representatives; and provincial government representatives.

The examination blue prints do not represent the emphasis at any one college. The emphasis is far different from the colleges because we are testing those items that an entry level chiropractor should know as they leave college to set up practice. It always has been a personal goal of Dr. Lawson to attempt to ensure that candidates focus their efforts studying things that will benefit them in practice.

2. The test construction committee is composed of chiropractors from various institutions. The committee currently has doctors from Western States Chiropractic College, Palmer College of Chiropractic - West, Palmer College of Chiropractic, and Canadian Memorial Chiropractic College. Like Dr. Mestdagh, Dr. Lawson graduated from a college in the United States. The test construction committee reflects different education, and different lengths of practice. The test construction committee is responsible for filling in the blue prints with questions. They are not able to skew the examination in favour of one institution because they are not responsible for those decisions.

3. Currently, actual items on the tests are constructed by content area experts (M.Sc., Ph.D., M.D.) in the basic science areas. These experts are recruited from all across Canada and are instructed in formal workshops (by professors in testing) how to construct items. A chiropractor at the workshops provides guidance for clinical relevance to chiropractic practice. Recent workshops of this sort have been conducted at the

University of Calgary, University of British Columbia and the University of Toronto. More workshops are planned, the next one probably at McGill University. As mentioned above, test construction committees of the CCEB then select, refine and edit the items before they appear on the tests. Given this procedure, it is hard to imagine how these tests may reflect the CMCC curriculum or teaching. Indeed, they emphatically do not.

4. Dr. Mestdagh states that students at CMCC had seen some of the questions before. The CCEB does not release any questions to anyone. The item analysis we use each year does not demonstrate that candidates are learning what questions will be used. Dr. Mestdagh also took the examination years ago, and it is important to understand that the CCEB has been undergoing major revisions and improvements to keep up with the changing needs of measurement.

5. Dr. Mestdagh would like to see a comparison of CMCC graduates and other graduates who take the NBCE examinations. So would we. The lack of publications coming from the NBCE is not the responsibility of the CCEB.

6. The issue of continuing competency is one which is very meaningful. The CCEB examinations are designed to test whether the candidates have the cognitive skill levels that an entry level chiropractor needs to have in order to practice safely and ethically. This examination in combination with the practical examinations that the provinces provide are designed to protect the public. Issues of continued competency are the venue of the provincial licensing boards.

There are no suitable examinations to test "heart and personal effectiveness". Attempts in the testing community to evaluate these types of issues have not proven effective enough and defensible enough to be used in a master type of examination like the CCEB exams.

7. Finally is Dr. Mestagh's concern that the CCEB is not needed. The need for a Canadian examination can be debated at length, and certainly has been debated. The CCEB examinations are driven by the profession, and the CCEB serves the profession. We continually monitor what the profession and the licensing boards need, and when those bodies inform us that our services are no longer necessary, we will cease to test.

Again, we would like to thank Dr. Mestdagh for taking the time to send his concerns to the JCCA, and we hope that we have been able to address them.

Drs. Lawson, Violato, Marini, and McEwen
Calgary, Alberta

Carey P. A suggested protocol for the examination and treatment of the cervical spine: managing the risk.
JCCA 1995; 39(1):35–40.

To the Editor:

I have several issues which I would like to raise concerning the recent article written by Dr. Carey. First, the provocative screening tests described in this publication are invalid. While Dr. Carey acknowledges this fact, he states that if "the rotation – extension test illicits a positive response at any time, the other tests may help confirm the suspicion of VBI" (vertebrobasilar insufficiency). As I see it, if one invalid test is positive, performing several invalid tests confirm nothing, and in fact, may be harmful to the patient. From a fundamental standpoint, screening tests must not place patients at risk of harm. These procedures may potentially produce a stroke while being performed. Further, what are the psychological consequences of labelling a patient as being at risk of stroke with extreme neck position, especially in light of the poor predictive value, sensitivity and specificity of these manoeuvres? Second, performing tests of "limited value" do not "demonstrate the chiropractor's awareness of the possibility of CVA's (cerebrovascular accidents), and concern for the patient's well-being"; this is the purpose of performing a thorough history and physical examination. Third, the author advocates the use of motion palpation to diagnose upper cervical spine "hypermobility/instability". These entities are poorly defined in the literature, they do not collaborate with the clinical situation, their role in producing stroke following cervical spine manipulation is unknown, and, it is highly unlikely that such unreliable tests as motion palpation are of use in determining their presence. Fourth, Dr. Carey advocates that "as a general rule, it would be prudent to have radiographic information of this area of complaint (cervical spine) when manipulation is contemplated". This statement promotes the use of defensive medicine, and is contrary to the *Clinical Guidelines for Chiropractic Practice in Canada*, wherein radiographic screening received a rating of doubtful based on Class I, II and III evidence. This is also a public health issue, as patients may be unnecessarily exposed to harmful ionizing radiation.

Brad Kreitz DC
Hamilton, Ontario

To the Editor in reply:

It is accepted by most in the profession that the provocative tests are invalid for ascertaining stroke risks, but that doing these tests can elicit responses in patients such as dizziness. This may make a chiropractor decide not to adjust or to temper their treatment because of the patient's response to these tests. However, to do the provocative tests shows that the chiroprac-

tor has concern and an awareness to the risk of CVA's in chiropractic practice. Discussing this risk and getting a signed informed consent form is best. In the author's experience with legal cases involving chiropractors, their performance or lack of performance of these tests has always been an issue.

Chiropractors use their hands to motion palpate. They are, I believe, quite good at it. I do not believe nor have I said that motion palpation is a test to determine risk of strokes. It is an appropriate tool for chiropractors to use in evaluating a patient's cervical spine.

X-rays are an interesting issue. I do not suggest routinely taking x-rays of patients. I do not believe that, by taking x-rays of their cervical spine, you can predict a patient being at risk of stroke. However, x-rays do assist in determining the structural integrity of the spine, particularly in the cervical region. If you are going to manipulate a neck, I would suggest that we, as chiropractors, should more often look before we leap. Patients are fearful of manipulation in general and they are especially fearful and tense when it is their neck being manipulated. Many times this can be addressed by a good examination, but often x-rays would be of a valuable assistance and wise as well.

It happens too often today that many chiropractors are not x-raying patients when they should and when it is indicated. This has nothing to do with the guidelines. It is because they do not have the use of or the access to x-ray equipment. This may be due to cost or to some other reason, but I would suggest that it is inappropriate for primary care providers to not access the tools they should and can use.

Finally, taking x-rays may be defensive and precautionary. When you are being sued for treating someone's neck and they have sustained an injury as a result of that treatment, I can assure you that you will look foolish for not having x-rayed them prior to your treatment. When this is found to have been the case, it will also be an issue with many other people besides the lawyers.

Paul Carey DC
President, Canadian Chiropractic Protective Association