The Chiropractic Report

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Professional Notes

Chiropractic Manipulation for Chronic Spinal Pain – A New Trial

It used to be that the research community accepted that skilled manipulation was effective for uncomplicated, acute spinal pain – but not chronic spinal pain.

Since the systematic review by van Tulder et al. in 1997 (*Spine* 1997; 22:2128-2156), it has been accepted that manipulation is more effective for chronic low-back pain than usual care by the general practitioner, bed rest, analgesics and massage. It should often be combined with exercise therapy.

Recent trials by Giles and Mueller in Australia (*JMPT* 1999; 22(6):376-381), Hoving, Koes et al. in the Netherlands (*Annals Int Med* 2002; 136:713-722) and Evans, Bronfort et al. (*Spine* 2002; 27(21):2383-2389) have demonstrated that manipulation is also safe and effective for patients with chronic neck pain. Again, there are even better results when manipulation is combined with exercise.

The above trial by Giles and Muller, from the Townsville General Hospital in Queensland, Australia, and reviewed

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How Chiropractors Think and Practice

A North American Opinion Survey

A. Introduction

LARGE CHIROPRACTIC ORGANIzations in North America, such as the American Chiropractic Association (ACA), the Canadian Chiropractic Association (CCA) and the US National Board of Chiropractic Examiners (NBCE) regularly collect data on chiropractic practice – such as the demographics of chiropractors and their patients, and diagnostic and treatment methods employed in chiropractic practice.

Rather surprisingly though, given the historical divisions and debates within the profession, there has never been a rigorous opinion survey of chiropractors throughout the US or North America to assess how divided or united the profession really is on the core issues it debates. Beneath the rhetoric and the self-promotion of individuals and special interest minority groups, is there significant conflict or substantial unity in today's chiropractic profession in North America?

B. Research

2. That question has now received a dramatic answer with the publication of a major new survey from the Institute of Social Research, Ohio Northern University (ONU).[1] The research team, led by William McDonald, DC MS Ed, a practising chiropractor from Charleston, West Virginia, and Keith Durkin, PhD of ONU, reports:

- Even though chiropractors use different labels to describe their philosophy and practice, they actually have "supermajorities" on how they think and practice.
- More than 9 of 10 (over 90%) provide a differential diagnosis and supplement adjustive care with exercises, ergonomic advice and recommendations for maintenance/wellness care.
- The great majority agree that, with appropriate training, chiropractors should provide acupressure (94.0%), acupuncture (76.8%), homeopathic medicine (82.1%), massage (93.1%), modalities (93.5%) and vitamins and minerals (96.7%) within their scope of practice.
- "The one word that summarizes the findings of this survey (is) unity", and the survey clearly suggests "the profession needs to review and modify century-old stereotypes."
- The greatest lack of unity relates to the use of prescription drugs – one area where unity might have been expected. While a large majority (88.6%) oppose chiropractors writing prescriptions for all medicines, only a slight majority (51.2%) oppose writing prescriptions for musculoskeletal medicines and a slight majority (54.3%) supports chiropractors writing prescriptions for over-the-counter (OTC) drugs.

3. These findings on medication are certainly a surprise. The chiropractic profession has always presented itself as drugless in principle and practice, and that is reflected in the current policy of chiropractic organizations and legal scopes of practice. For example the 1996 Association of Chiropractic Colleges' Paradigm of Chiropractic, endorsed by the ACA, CCA, ICA and World Federation of Chiropractic (WFC) emphasizes the profession's use of conservative care without drugs and surgery.

We now review this new survey and its significance in greater detail.

B. Background and Method

4. The principal investigator, and the one who first proposed the project, was Dr. William McDonald. On one hand Dr. McDonald is well versed in chiropractic principles as a Palmer College graduate who was a contributing editor for Dr. Virgil Strang in the writing of *Essential*

Principles of Chiropractic (1984), used as a text at Palmer for the next 10 years. On the other hand he has developed established interprofessional relationships during 19 years of practice in West Virginia, where he currently represents the profession on the interdisciplinary Healthcare Advisory Panel for Western Virginia Workers' Compensation.

McDonald's primary goal was to perform a survey for sound, contemporary information on "the degree to which the profession is or is not united" on the historically contentious issues of the philosophy of chiropractic and scope of practice. To obtain a soundly based scientific survey he assembled a multidisciplinary team of co-investigators from three universities and from chiropractic and osteopathic colleges in West Virginia and neighboring states. They are:

Keith Durkin, MD PhD – Director, Institute for Social Research, ONU

Stephen Iseman, MS, PhD – Institute for Social Research, ONU

Mark Pfefer, MS, DC – Director of Research, Cleveland Chiropractic College

Betsy Randall, MSW, PhD – Associate Professor of Psychiatric Social Work, West Virginia University

Linda Smoke, MS & MS – Mathematician, Central Michigan University

Kendall Wilson, MS, DO – Clinical Associate Professor, WV School of Osteopathic Medicine.

5. In March 2002 a mail survey form was sent to a systematic random sample of 1102 practising chiropractors in the US, Canada and Mexico, taken from a mailing list of 60,409 names from Dynamic Chiropractic, a newspaper mailed to all chiropractors. Those receiving the survey were guaranteed confidentiality and advised:

• "As a chiropractor you are probably aware of our century-long debate over scope of practice and philosophy. Despite the importance of this discussion, chiropractors have never before been scientifically surveyed on these vital issues."

• "(This) survey will measure your attitudes on issues on scope of practice and philosophy. The results will be helpful to chiropractic leaders and educators who must plan and make decisions on behalf of the members of our profession."

6. Completed surveys were received from 687 respondents from all US states, all major regions of Canada and Mexico. This amounted to a strong response rate of 63.3%.

All statistical analysis was by statisticians at ONU. Funding support for the survey and its publication was given by Dynamic Chiropractic, Foot Levelers Inc. and Palmer College. The survey has been published in book form (ONU, hard back, 100 pages, US$49.95, CAN$74.95) and can be ordered from www.chiropracticsurvey.com.

C. The Survey Form

7. The survey form is shown in Figure 1. It addresses many of the big issues for chiropractors – such as the appropriateness of various services (questions 10 and 12), attitudes towards prescription drugs (questions 7 and 8) and immunization (question 11), and opinions on whether specific and general visceral health problems may be related to subluxation and its correction (questions 3, 4, 6 and 10).

To allow the researchers to correlate attitudes reported by individual chiropractors to their self-identified position within the philosophical spectrum of the profession, chiropractors were asked to rate their scope of practice/philosophical position on a 9 point scale in which 1 represented very broad scope and 9 very focused scope (see question 9). On this point the definitions used are obviously very important, and were:

Broad Scope: allows a wide array of manual and other clinical procedures for diagnosing and treating both symptoms and neuromusculoskeletal conditions. Some in this camp would include minor surgery, obstetrics and prescribing medications.

Middle Scope: tends to combine subluxation adjusting with other conservative treatment and diagnostic procedures.

Focused Scope: emphasizes the detection and adjustment of vertebral subluxations to restore normal nerve activity to musculoskeletal and visceral tissues. Some in this camp oppose therapeutic modalities, extremity adjusting, and diagnostic procedures.

The survey form is brief, limited to 13 questions and, with instructions, appeared on two sides of one sheet of paper. As McDonald, Durkin et al. point out, there are advantages and disadvantages to brevity. A main benefit is that more people respond, making the results more representative and valid. A disadvantage in an opinion survey is that the intensity of the opinions expressed are not measured.

D. Results

8. Detailed results appear in 45 pages of text and tables. These include much of interest, and it is well worth obtaining the full publication to read these. Key findings of interest include:

a) **Labels**. Chiropractors do use different labels to describe their philosophy and practice – focused scope (traditionally known as 'straight' – 19.3%), broad scope (traditionally known as 'mixer' – 34.3%) but the largest grouping, middle scope (46.4%).

b) **Opinions.** However, beneath these labels, there is in fact substantial unity in their opinions and practices. As to opinions:

i) Over 90% think that the scope of practice of chiropractic should include home

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Figure 1. **The Survey of North American Chiropractors**

1. In a typical acute mechanical lumbar case, how *frequently* do you *adjust* the spine? (Mark an "X' in *one* box)

☐ 100% of visits ☐ 90% ☐ 80% ☐ 70% ☐ 60% ☐ 50%
☐ 40% ☐ 30% ☐ 20% ☐ 10% ☐ 0%

2. In a typical acute mechanical lumbar case, how clinically *beneficial* is the spinal adjustment? (Circle *one* number on the scale)

Great benefit ... No benefit
10 9 8 7 6 5 4 3 2 1 0

3. Do *adjustments* usually elicit improvements in these types of cases? (Mark one "X" for *each* category below)

Yes	No	
☐	☐	Extremity joint dysfunction (subluxation)
☐	☐	Otitis media (repeat middle ear infections)
☐	☐	Headache (tension)
☐	☐	Headache (migraine)
☐	☐	Asthma (allergic type)
☐	☐	Dysmenorrhea (menstrual pain)

4. In what percentage of visceral (internal) ailments is the vertebral subluxation a significant *contributing* factor? (Mark an "X" in *one* box)

☐ 100% ☐ 90% ☐ 80% ☐ 70% ☐ 60% ☐ 50% ☐ 40%
☐ 30% ☐ 20% ☐ 10% ☐ 0%

5. Should chiropractic retain the term *vertebral subluxation complex*? (Mark an "X' in *one* box) ☐ Yes ☐ No

6. Should the adjustment be *limited* to *musculoskeletal* conditions? (Mark an "X' in *one* box) ☐ Yes ☐ No

7. Of all pharmaceutical prescriptions filled annually, what percentage is clinically *beneficial*? (Mark and 'X' in *one* box)

☐ 100% ☐ 90% ☐ 80% ☐ 70% ☐ 60% ☐ 50% ☐ 40%
☐ 30% ☐ 20% ☐ 10% ☐ 0%

8. Should chiropractors be permitted by law to write pharmaceutical *prescriptions*? (Mark an "X" for *each* category below)

Yes	No	
☐	☐	Over-the-counter medicines
☐	☐	Musculoskeletal medicines
☐	☐	All medicines, including control1ed substances

9. Using the definitions below, where would you place *yourself* on the *scope of practice* scale? (Circle *one* number on the scale)

Broad scope ... Middle scope ... Focused scope
1 2 3 4 5 6 7 8 9

BROAD SCOPE allows a wide array of manual and other clinical procedures for diagnosing and treating both symptoms and neuromusculoskeletal conditions. Some in this camp would include minor surgery, obstetrics and prescribing medications.

MIDDLE SCOPE tends to combine subluxation adjusting with other conservative treatment and diagnostic procedures.

FOCUSED SCOPE emphasizes the detection and adjustment of vertebral subluxations to restore normal nerve activity to musculoskeletal and visceral tissues. Some in this camp oppose therapeutic modalities, extremity adjusting, and diagnostic procedures.

10. Does *your clinical routine* usually include any of the following? (Mark *one* "X" for *each* category below)

Yes	No	
☐	☐	Differential diagnosis at new patient examination
☐	☐	General nutrition advice
☐	☐	Specific vitamin/herbal recommendations
☐	☐	Periodic maintenance/wellness care
☐	☐	Exercise recommendations
☐	☐	Teaching a relationship between spinal subluxations and visceral health
☐	☐	Ergonomic recommendations
☐	☐	Weight loss counseling
☐	☐	Stress reduction recommendations

11. Do you provide, or not provide, information on *immunization* to your patients? (Mark an "X" in *one* box)

☐ I usually provide information in *support* of immunization.
☐ I usually provide information in opposition to immunization.
☐ I usually provide information on *both* sides of the immunization issue.
☐ I usually do *not* provide information on immunization

12. Assuming the practitioner obtains adequate training, are these services, procedures, and privileges *appropriate* for the chiropractic profession's scope of practice? (Mark *one* "X" for *each* category below)

Yes	No		Yes	No	
☐	☐	Colonics	☐	☐	Surface EMG
☐	☐	Massage	☐	☐	Minor surgery
☐	☐	Needle EMG	☐	☐	Acupressure
☐	☐	Manipulation under anesthesia	☐	☐	Thermography
☐	☐	Acupuncture	☐	☐	ECG (EKG)
☐	☐	Orthotics/pillows	☐	☐	Obstetrics
☐	☐	Collars, supports, braces	☐	☐	Homeopathic meds
☐	☐	Hospital admitting privileges	☐	☐	Herbs
☐	☐	Casting	☐	☐	Vitamins/minerals
☐	☐	Modalities (electrical muscle stimulation, etc.)			
☐	☐	Venipuncture	☐	☐	Home-based exercise
☐	☐	In-house lab	☐	☐	Clinic-based exercise
☐	☐	TENS units			

13. Which of the following *demographics* best describes you and your practice? (Mark *one* "X'. for *each* category below)

Gender: ☐ Female ☐ Male
Age: ☐ <39 ☐ 40-59 ☐ 60>
Adjusting technique: ☐ Low force ☐ Traditional force ☐ Both
Pre-chiropractic degree (highest): ☐ None ☐ Associate ☐ Bachelor's ☐ Master's ☐ Doctorate (DC)
DC degree from: *The survey here listed all chiropractic colleges.*
Number of patients you *personally* treat weekly:
☐ <99 ☐ 100-149 ☐ 150-199 ☐ 200>
Excluding other income sources, indicate your *net* income as a chiropractor last year ($U.S.):
☐ <99,999 ☐ $100-149,999 ☐ $150-199,999 ☐ $200,000>
Are you the owner of your practice(s)? ☐ Yes ☐ No
Prior to chiropractic college, did you have a relative or family member who was a practicing chiropractor? ☐ Yes ☐ No
Prior to chiropractic college, were you a chiropractic patient?
☐ Yes ☐ No
Years in practice: ☐ <10 ☐ 11-20 ☐ 21-30 ☐ 31>

Chiropractic Manipulation for Chronic Spinal Pain

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in the January 2000 issue of this Report, reported that chiropractic manipulation was superior to needle acupuncture (with and without electrical stimulation) and medication (NSAIDs – tenoxican with ranitidine) for patients with both chronic neck and back pain.

Spine has now published a further impressive trial by Giles and Muller comparing these treatments. This was a different and larger group of patients (n 115), employed a wider range of subjective and objective measurements of outcome, and tested three types of medication (Celebrex, Vioxx, and paracetamol). All patients had uncomplicated spinal pain (neck and/or thoracic and/or low back) for a minimum of 13 weeks and in this randomized controlled trial, were seen twice weekly for a maximum of 9 weeks.

Subjective assessment of results (Oswestry, Neck Disability Index, Short Form 36 Health Survey Questionnaire, VAS for Pain Intensity) and objective assessments (lumbar standing and lumbar sitting flexion, cervical sitting flexion and extension) were made at baseline and at 2, 5 and 9 weeks after commencement of treatment.

Chiropractic manipulation, as in the earlier trial, resulted in greater short-term improvement than acupuncture or medication, both on subjective and objective assessments. The highest proportion of patients with complete early recovery (asymptomatic status) was found for manipulation (27.3% of patients), which compared with acupuncture (9.4%) and medication (5%).

Giles and Muller, from their data and their interdisciplinary experience at the Townsville Hospital, affirm that there is still an uncertain overall picture with respect to the management of chronic spinal pain. "A pathologic cause cannot be identified for most episodes of spinal pain," "clinicians often have great difficulty establishing the underlying cause," and "only about 15% of patients receive a definitive diagnosis". On the other hand, "numerous studies have shown that patients with low-back pain do exhibit abnormal spinal motion" and their new trial confirms the wisdom of a conservative non-invasive approach such as spinal manipulation and exercise. See the following item for recent commentary on the challenges facing those who would use a surgical approach to back pain.

(Giles LGF, Muller R (2003) *Chronic Spinal Pain: A Randomized Clinical Trial Comparing Medication, Acupuncture, and Spinal Manipulation*. Spine 28(14):1490-1503.)

Watching Medical Spine Technology

Two recent publications, one in the US and one from Germany, raise provocative questions about medical and surgical management of the spine and back pain. In the US an August 1 supplement to the journal *Spine* deals with emerging technologies in spine surgery. These remain controversial and include the following methods of managing disc degeneration and back pain:

- Interbody fusion cages
- Intradiscal electrothermal treatment (IDET)
- Disc replacement prostheses
- The use of biologic agents (e.g. bone morphogenetic proteins) and gene therapy.

Particularly noteworthy is the very cautious – even defensive – editorial from *Spine's* editor-in-chief James Weinstein and colleagues. Observations include:

- "Low-back pain has been written about for centuries. Today its treatment remains enigmatic!"
- ". . . the field of spine surgery has grown exponentially. Between 1996 and 2002 spine fusion rates have doubled in the United States . . . we have a more than 90 year history of spine arthrodesis, yet we remain somewhat in the dark on key questions such as indications for fusion, inability to diagnose the precise pain generator and the frequency of adjacent segment degeneration . . . Moreover our interventions remain largely untested in well-designed randomized controlled trials."
- "As we examine the latest set of emerging technologies, we must also ask ourselves why many of the most recent additions have not impacted clinical outcomes . . . enamoured by technology, we must resist the assumption that newer and less invasive is better. In fact, there is yet to be a less invasive (surgical) spine procedure that has justified its increased cost and learning curve with improved clinical outcomes."
- "We have too often seen a new technology touted as the "perfect solution" when it arrives only to see less favorable results when applied to the general population . . . Often the company wants to commercialize the technology by the path of least regulatory resistance . . . We must abandon the "do only what it takes to get it approved" attitude and replace it with a "do whatever it takes to know if it really works" philosophy."

The German article, from Lutz et al. at the University of Witten-Herdecke, Witten, is also published in *Spine*. Titled *Looking Back on Back Pain: Trial and Error of Diagnoses in the 20th Century*, it explains that despite new technology, steeply rising surgical rates and "immense costs" related to back pain, "knowledge about the etiology of low-back pain remains low." Lutz et al. then review the German literature to analyze medical efforts to understand low-back pain over the past 100 years and observe:

- Nerve affections (e.g. neuritis, neuralgia and perineuritis) were the main causes of back pain discussed in the early 1900s. However these and many others were all swept away after the 1930s by disc disease and herniation.

"In the 40s, the paradigm of the disc ended almost all discussion about etiology. The 'dynasty of the disc' began. Only at the very end of the century did other ideas reappear."

- Factors that misled the medical profession included a "preference in modern medicine to favor etiologies that are visible, organic and removable" and an "inclination to trust results of technical diagnostics more than our personal judgment."
- The medical profession forgot to relate radiographic abnormalities to the individual patient even though it had "known for a long time that bulging or even herniated discs do not have to produce symptoms."

However today "we are back to personal judgment in the diagnosis and treatment of low-back pain" and, after all those years

of certainty that the disc was the culprit, "the prevalence of low-back pain without defined etiology today is estimated to be at least 80%."

(Weinstein JN, Boden SD, An H (2003) *Emerging Technology in Spine: Should we Rethink the Past or Move Forward in Spite of the Past?*, Spine 28(15S):51. Lutz GK, Butzlaff M et al. (2003) *Looking Back on Back Pain: Trial and Error of Diagnoses in the 20th Century*, Spine 28(16):1899-1905.)

Other Research Highlights

1. **US – Maine-Seattle Back Questionnaire**. As part of the continuing effort to produce valid, shorter, simpler ways of measuring results/outcomes with back pain patients, US researchers Atlas, Deyo et al. have reduced the well-respected 23 item Roland Morris Disability Questionnaire to a 12 question form they are calling the Maine-Seattle Back Questionnaire. They have just reported two studies showing that this "short, simple, self-administered 12 item back-specific functional status questionnaire" performs "extremely well" in comparison with the Roland Morris. (Atlas SJ, Deyo RA et al. (2003) *The Maine-Seattle Back Questionnaire: A 12-Item Disability Questionnaire for Evaluating Patients with Lumbar Sciatica or Stenos is: Results of a Derivation and Validation Cohort Analysis*, Spine 28(16):1869-1876).

2. **UK – Further Basis for Cervicogenic Headache**. In the 1990s chiropractic and dental researchers described a new anatomical feature that likely provides an explanation for cervicogenic headache – connective tissue bridges from each of muscle (rectus capitis posterior minor – RCPM), ligament (ligamentum nuchae – LN) and bone to the pain-sensitive dura mater in the upper cervical spine (between CO-C1 and C1-C2). A new study from chiropractic anatomists Kim Humphreys and colleagues, performed at the Anglo-European College of Chiropractic in England and the National University of Health Sciences in the US, funded by the European Chiropractors' Union and published in *Clinical Anatomy*, adds to previous knowledge in three ways:

- It reports an additional bridge of connective tissue linking the RCPM and LN.
- It reports that these connective tissue bridges, initially found in isolated cadavers, are consistently found in 30 specimens.
- It finds that all these connective tissue bridges are identifiable on MRI, with and without tissue enhancement.

(Humphreys BK, Kenin S et al. (2003) *Investigation of Connective Tissue Attachments to the Cervical Spinal Dura Mater*, Clin Anatomy, 16:152-159.)

3. **Finland – Cochrane Collaboration Systematic Review of Evidence for Radiofrequency Denervation for Neck and Back Pain.** Radiofrequency denervation including rhizotomy, severing the roots of spinal nerves, was started in the mid-1970s and is now widely used for musculoskeletal pain disorders. A new systematic review reveals there is still little evidence of its effectiveness.

Worldwide there have been 7 trials for lumbar and cervical pain, but all small and totaling 141 patients receiving RD. These provide limited evidence that RD offers short-term relief for chronic neck pain, no clear evidence for lumbar facet joint pain, and limited evidence suggesting ineffectiveness of intra-discal RD for discogenic low-back pain.

RD is also used to manage much other musculoskeletal pain – for example sacroiliac joint pain, trigeminal neuralgia, sympathetically maintained pain, cervicogenic headaches and intercostal neuralgia – but no trials of effectiveness have been performed for any of these interventions.

(Niesistö L, Kalso E et al. (2003) *Radiofrequency Denervation for Neck and Back Pain: A Systematic Review Within the Framework of the Cochrane Collaboration Back Review Group*, Spine 28(16):1877-1888).

World Notes – Caribbean

1. **Barbados**. Barbados was the first Caribbean country to regulate the practice of chiropractic – in 1974. The country's 7 chiropractors are regulated by a Paramedical Professions Council rather than a separate chiropractic regulatory body, because of the small number of practitioners, but have standard practising rights found internationally including primary contact practice and rights of diagnosis and the use of diagnostic imaging.

The cost of chiropractic services is covered under workers' compensation, but not the government's healthcare plan. However most private insurance plans provide coverage. The Pan American Health Organization (PAHO), WHO's regional organization for the Americas, sponsors the work of the Caribbean Association of Complementary and Alternative Medicine (CACAM), which includes chiropractic and medical doctors in its leadership, and Dr. Dawn Maddalone is a CACAM officer in Barbados. *Contact:* Dr. Dawn Maddalone at dmchiro@sunbeach.net

2. **Jamaica**. Dr. Earle Bryan, a graduate of New York Chiropractic College, who currently serves as Chairman of the Jamaica Chiropractic Association (JCA) reports that the government has confirmed that, in a legislative move similar to that in Barbados, it is now proceeding to recognize and regulate the practice of chiropractic under an existing Professions Supplementary to Medicine Act. There are currently 5 duly qualified chiropractors in Jamaica, all educated at North American accredited colleges. However, there at least as many unqualified persons are holding themselves out as chiropractors so the promised new law, which follows an extensive lobbying campaign by the JCA, is much needed. *Contact:* Dr. Earle Bryan, earledcb@verizon.net.

3. **Other Countries.** Other Caribbean countries with legislation regulating the practice of chiropractic are the Bahamas, the British Virgin Islands, the Cayman Islands, the Leeward Islands (St. Kitts and Nevis) and the US territories of Puerto Rico and the US Virgin Islands.

Countries with chiropractors in full or part-time practice, but no legal regulation, include Cuba, Dominica, Grenada and Trinidad & Tobago.

For contacts in these countries, and worldwide, visit www.wfc.org.

and clinic-based exercises, physical therapy modalities, recommendations on natural health products such as vitamins and minerals, and recommendations on orthotics/pillows/collars/supports.

ii) A large majority agree that, with appropriate training, chiropractors should provide homeopathic medicine (82.1%) and acupuncture (76.8%).

iii) There was less agreement on, but still clear majorities in favor of, hospital admitting privileges (74.2%) in-house lab (68.2), manipulation under anesthesia (67.2%), casting (62.0%) and venipuncture (60.6%).

iv) Of the 24 services/privileges listed in Question 12 the only ones with minority support and therefore ruled inappropriate were colonics (39.6%), obstetrics (31.1%) and minor surgery (23.5%).

v) Greatest disunity of opinion, as already mentioned, related to the use of prescription drugs –perhaps the foremost area in which one would expect chiropractors to be in agreement. Approximately 1 in 2 support chiropractors writing prescriptions for OTC drugs (54.3%) and musculoskeletal medicines (48.8%).

vi) While the value of pharmaceuticals was acknowledged, there was clear concern about inappropriate use. The respondents, as a group, were of the opinion that only 39.8% of all pharmaceutical prescriptions filled annually were clinically beneficial.

vii) Approximately 9 in 10 confirmed that the profession should retain the term vertebral subluxation complex (88.1%), and 62.1% agreed that subluxation was a "significant contributing factor in many visceral conditions" (62.1%).

c) **Practice.** The response to Question 10 demonstrated that the typical North American chiropractor's usual clinical routine includes a broad spectrum of services. More than 9 in 10 (93.2% to 97.8%) provide differential diagnosis; supplement adjustive care with ergonomic and exercise recommendations; and recommend periodic maintenance/ wellness care. Almost as many provide advice on general nutrition (87.7%) and stress reduction (86.4%).

Approximately 3 in 4 teach the relationship between spinal subluxation and visceral and general health (76.5%), and recommend specific vitamins/herbals (72%).

There were no questions about other forms of complementary care actually used in practice but we know from the NBCE's 1998 Job Analysis Survey[2] that many US chiropractors now also practise acupressure/meridian therapy (66.1% with an average of 28.5% of their patients), needle acupuncture (10.8% with 4.4%) and homeopathy (53.1% with 14.6%), and that this is a growing trend. In the NBCE's 1991 survey, for example, only 36.9% of chiropractors were providing homeopathy.[3]

NBCE surveys in Canada[4] and Australia and New Zealand[5] show similar use of acupressure/acupuncture/homeopathy by chiropractors in those countries.

d) **Cross-relationships** (bivariate findings). Read the full study for many interesting findings here, but these include:

i) Chiropractors who possess a bachelor's or higher degree apart from their chiropractic degree (66% in the survey, which is consistent with responses to NBCE surveys) are nearly twice as likely to rate themselves as broad scope than other chiropractors – but very interestingly, on most issues they have no difference of opinion.

ii) As one would expect there are significant relationships between self-rated scope of practice – focused/middle/broad – and opinions on various matters. However these are not extreme. For example:

• On subluxation as a significant contributing factor in visceral ailments, focused scope (straight) respondents rate this as so in 81.5% of cases, broad scope (mixer) respondents in 55.7%.

• On frequency of clinical benefit of drugs prescribed, ratings are 48.4% from broad scope chiropractors and 27.9% from focused scope chiropractors. Approximately 3 of 4 broad scope practitioners favor chiropractors being able to prescribe OTC and musculoskeletal medicines (77.3% and 71.3% respectively), but approximately 1 in 5 focused scope practitioners agree (17.6% and 19.2% respectively).

(It should be remembered here that the largest group in the profession is middle scope practitioners – and approximately 1 in 2 of them favor the use of OTC and musculoskeletal medicines (53.5% and 45.1% respectively).

e) **Overall conclusions**. McDonald, Durkin et al. conclude that the North American chiropractic profession has largely outgrown its historical stereotype of being defensive, divided, and isolated from mainstream healthcare. A 'super majority' of more than 3 in 4 endorses:

i) The subluxation as a significant contributing factor in many musculoskeletal and visceral ailments, and the central role of adjustment in management of these conditions.

ii) The concept of preventive/maintenance/wellness.

iii) Differential diagnosis

iv) "A broad spectrum of conservative clinical services".

Importantly, these concepts are not only endorsed by middle scope chiropractors, but also by *firm majorities of both broad scope and focus scope chiropractors*.

E. Discussion

9. **Limitations**. Despite its overall validity and importance, this study has limitations. Therefore:

a) **Intensity**. The intensity with which attitudes are held was not measured – as can be done for example with question modifiers (e.g. my opinion on this is 'very strong', 'moderately strong', or 'somewhat uncertain') or a numerical rating scale.

b) **Narrowness of information**. The survey only gives information on the precise questions asked – which is why it was important to give you the actual survey form in this summary of the study.

For example from the answer to Question 7 we learn the striking fact that approximately half the profession thinks "chiropractors should be permitted by law to write pharmaceutical prescriptions" for OTC and musculoskeletal medicines. What we don't know, however, is whether those in favor think that the profession should actually mount a political initiative in this direction – given the divided opinion on the issue and the impact that such a move might have on interprofessional relations.

c) **Method of publication.** Some will point out that this survey was not published in an established journal and subject to peer review. While true, the most obvious response to this is that the investigators wanted to publish their methods and results in much greater detail than would be possible in a journal, and the methodology can be seen to be sound.

10. **Commentary.** There have been some more limited opinion surveys in some regions of North America in the past, the most thorough one dealing with attitudes towards philosophy and scope of practice, being a 1994 Canadian survey by Biggs, Hay and Mierau.[6]

On a random sample of 401 chiropractors throughout Canada, it was consistent with the new North American survey in finding that a clear majority (59.4%) held moderate views on philosophy and scope of practice. A small conservative group of 14% believed that chiropractic should be limited to musculoskeletal conditions, but an "overwhelming majority" (74.1%) did not agree.

McDonald, Durkin's et al.'s new survey has important and clear messages for individual chiropractors and the leaders of the profession both in education and professional organizations. North America prides itself on its democracy. Anyone with an ounce – or, in Canada, a gram - of respect for democracy must see that:

a) As McDonald, Durkin et al. say, the word that summarizes how chiropractors think and practice in North America today is not conflict, as often surmised, but 'unity'.

b) There is no longer a legitimate case for competing state or national associations within the profession, or vocal, political minorities or individuals publicly espousing an extreme view of chiropractic that is either very broad or focused. To do so is clearly undemocratic and disrespectful of the best interests of the profession as a whole.

Certainly strong opinions can be held and fought for during internal debate, but in light of these survey results chiropractors can and must present a more unified face to the public and the healthcare system.

c) Chiropractic colleges, as they generally do, should understand that their students have two balanced needs today – a strong foundation in the traditional philosophy and practice of chiropractic, but equally the skills and attitudes that will allow them to be adaptable, respectful of other health professionals, and to recommend and provide - themselves or in interdisciplinary relationships - a broad range of healthcare services.

In all walks of life confidence, self-directed learning and flexibility have become the foundation of success in the contemporary world. Therefore there is very good news in the following words with which McDonald, Durkin et al. conclude their study:

A New Book You Need to Read

Fundamentals of Chiropractic edited by Daniel Redwood, DC and Carl Cleveland, III, DC, Mosby 2003, 700 pages, US$54.95 (www.us.elsevierhealth.com/productinformation) CAN$89.95 (www.elsevier.ca/productinformation)

This eagerly awaited new text from Dr. Daniel Redwood, a prominent clinician and author from Virginia Beach, Virginia and Dr. Carl Cleveland III, President, Cleveland Chiropractic College, Kansas City and Los Angeles, is of extremely high quality. It was designed as an entry level comprehensive text for chiropractic students. It is so concise, informed and wise that chiropractors will find it extremely satisfying also.

As William Meeker DC MPH, Vice-President of Research, Palmer College, and Marc Micozzi, MD PhD, Director, Policy Institute for Integrated Medicine, Thomas Jefferson University Hospital, say in their foreword: "We have great respect for this text – its conception, its contributors and its editors" and "strongly recommend it to chiropractors and other health professionals". If you want to understand what leaders in chiropractic education and practice are telling students, and where these students will take the profession over the next generation, this is simply the best text yet published.

The impressive multidisciplinary group of experts selected as chapter authors cover history, philosophy and sociology (Part I), anatomy, biomechanics and physiology (Part II), spinal analysis and diagnostic procedures (Part II), chiropractic care (Part IV – with chapters, for example, on chiropractic manual procedures, reactivation and rehabilitation, pediatrics, adjusting and caring for aging patients, occupational health, sports chiropractic, wellness, and how to introduce patients to chiropractic), research (Part V) and contemporary issues in chiropractic practice (Part VI).

One fine reflection of the current mood within the chiropractic profession in North America, which features a fusion of chiropractic principle and pragmatism and a new sense of unity as shown in the opinion survey discussed in the main article in this issue of the Report, appears in Chapter 2 of the text. This is titled *The Chiropractic Paradigm* and jointly authored by leaders from across the spectrum of chiropractic education and thought – Dr. Ashley Cleveland, Associate Dean, Cleveland Chiropractic College, Kansas City, Dr. Reed Phillips, President, Southern California University of Health Sciences, Whittier, CA, and Dr. Gerard Clum, President, Life Chiropractic College West, Hayward, CA.

This chapter discusses the landscape of DD Palmer's era and then three contemporary expressions of the chiropractic paradigm – in traditional language, in the language of the Association of Chiropractic College's Paradigm, and in the language of the biopsychosocial model that is increasingly dominant in the philosophy of healthcare in general.

The chapter describes the "over simplification" of the straight and mixer categories, the substantial variances within each, and the underlying unity found amongst all chiropractors. To quote:

"A common denominator . . . is the use of spinal adjustments to improve and maintain musculoskeletal function and to support the body's homeostatic mechanisms through the adjustment's effects on the nervous system, thus helping the body heal itself."

It is thrilling to think that many chiropractic students will now be introduced to the philosophy, science and art of chiropractic with the expertise, realism, and respect for others found in this book. Redwood and Cleveland deserve high praise. Read this one to see why yourself.

"The results of this survey suggest that North American chiropractors are less defensive, less absolutist and less polemic than the stereotype. The data also indicates that chiropractors know they offer patients valuable service. The picture emerging from their survey is of a confident, pragmatic and discerning profession, more capable than ever of participating in an interdisciplinary health care environment." TCR

References

1 McDonald W, Durkin K et al. (2003) *How Chiropractors Think and Practice: The Survey of North American Chiropractors*, Institute for Social Research, Ohio Northern University, Ada, Ohio.

2 *Job Analysis of Chiropractic: A Project Report, Survey Analysis and Summary of the Practice of Chiropractic within the United States* (2000), NBCE, Greely, Colorado.

3 *Job Analysis of Chiropractic: A Project Report, Survey Analysis and Summary of the Practice of Chiropractic within the United States* (1993), NBCE, Greely, Colorado.

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5 *Job Analysis of Chiropractic in Australia and New Zealand: A Project Report, Survey Analysis and Summary of the Practice of Chiropractic within the United States* (1994), NBCE, Greely, Colorado.

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NYCC and Chiropractic Services at Monroe Community Hospital

In the US and internationally most chiropractic colleges now have external clinics in hospitals and community healthcare centers, where chiropractic services are offered and students receive clinical training in multidisciplinary environments.

One recent example is the New York Chiropractic College Clinic at Monroe Community Hospital, a geriatric rehabilitation hospital in upstate New York affiliated with the University of Rochester and its School of Dentistry and Medicine. This began as a pilot project in 2002, described by Donald Dishman, DC MSc of NYCC and Paul Katz, MD of the University of Rochester and Medical Director, Monroe Community Hospital in the *Journal of Chiropractic Education* earlier this year (Vol 17. No. 1:6-7). It is noted:

• Chiropractic services were placed in an algorithm for the evaluation and treatment of neuromusculoskeletal pain syndromes. Then, during weekly ward rounds by Dishman, Katz and a group of chiropractic interns, appropriate patients were identified and invited to undergo chiropractic evaluation and treatment. In this geriatric chronic care facility patient ages ranged from 48-97 and many patients had co-morbidity such as coronary artery disease, cerebrovascular accident, multiple sclerosis, and diabetes mellitus.

• Results during the first 6 months of the pilot period were overall improvement in pain and function and quality of life as measured by SF-12 form and there were no adverse events recorded. This was so for all patients, including those receiving manipulation concurrently with a regimen of anticoagulant therapy. Students also valued their clinical training experiences.

As a result of continued good results through to the end of the pilot period a permanent chiropractic clinic has now been established at Monroe and an application has been made to the US Department of Health Human Services for a $750,000 grant to conduct a three year study on how elderly patients react to chiropractic care.

• "I admit it that when I was in medical school in the '70s, chiropractic had a very negative connotation to it," says Dr. Paul Katz "But there's a lot more science behind what they do now, and it's really given me a greater appreciation for their role."

• Echoing the new patient-centered attitude that lies at the heart of the current move to integrated care, Katz continues "the goal is to reduce pain, and however you do it, I don't care as long as it's safe and effective."

In a similar development Cleveland Chiropractic College of Kansas City, Missouri and Truman Medical Center are commencing chiropractic services and clinical education at TMC's Lakewood Hospital, Lee's Summit, Missouri in October.

How times have changed. According to the American Chiropractic Association there are now approximately 500 hospitals in the US with chiropractors on their staffs.