THE CHIROPRACTIC REPORT

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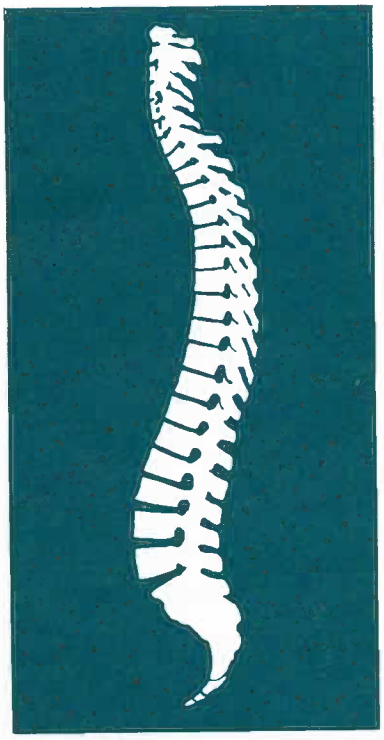

PROFESSIONAL NOTES

SI Joint Manipulation - Mechanisms of Action

There is now a broad consensus that the sacroiliac joints (SIJs) do move and that SIJ dysfunction is a prominent cause of back pain. But what do you actually do when you adjust an SIJ?

A recent study from Sweden - the first to undertake sophisticated measurement of the positions of the ilium and sacrum before and after manipulation - confirms that manipulation does not alter the position of the SIJ. Its effect is apparently through reflex mechanisms on pain, muscle tension and joint function or mobility. In this study in *Spine*:

a) 10 women with unilateral SIJ dysfunction were examined by two orthopedic specialists and a physician who practises manual medicine.

b) SIJ dysfunction was confirmed by positional tests (PSIS and ASIS heights with the patient standing and prone), functional tests (several including palpation and Patrick's Test) and pain provocation tests. All patients were positive on 10 or more of 12 tests.

c) Patients were then treated with manipula-

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CHIROPRACTIC HISTORY: THE EVOLUTION TO ACCEPTANCE

A. INTRODUCTION

In recent years spinal manipulation and the chiropractic profession "have gained a legitimacy in the United States health care system that until very recently seemed unimaginable" say Cherkin and Mootz in their introduction to a 1997 US government report on chiropractic titled *Chiropractic in the United States: Training, Practice and Research.*[1]

This new level of acceptance is an international development. At the University of Odense in Denmark, chiropractic and medical students take the same basic science courses for three years before entering separate streams for clinical training. In countries where chiropractic educational programs have commenced in the 1990s, such as Brazil and Korea, many chiropractic students are medical doctors.

Why has there been such a history of conflict between medicine and chiropractic? How and why has that changed? These are questions of interest not only to chiropractors and chiropractic students, but also patients, medical doctors and other health professionals. This issue of the Report addresses them in the context of a brief history of the chiropractic profession. For more complete histories see *Chiropractic: History and Evolution of a New Profession* by Professor Walter Wardwell,[2] Department of Sociology, University of Connecticut who has studied the chiropractic profession since his Harvard doctoral thesis in 1951, and other fine histories by Moore,[3] a history professor from Radford University, Virginia and Keating,[4] a psychologist and historian on the faculty of the Los Angeles College of Chiropractic.

B. BEGINNINGS

2. The chiropractic profession was founded in Davenport, Iowa in 1895 by Daniel David Palmer, who had practised magnetism in the years prior to this. His new focus was spinal adjustment or manipulation. An early patient, the Rev. Samuel Weed, suggested the name of the profession, which is derived from the Greek words *praxis* and *cheir* meaning practice by hand.

Palmer had no formal training but subscribed to the medical journals of the day, and those who have studied his writings conclude he was unusually well-informed on major developments in anatomy and physiology in Europe and North America, indeed that "very few medical practitioners at his time in America could claim to be so well read."[5] He founded the Palmer School of Chiropractic in Davenport in 1897 and this remains one of the major chiropractic colleges today.

At this time, the beginning of the twentieth century, all health care was an art or craft more than an organised body of knowledge. There was little integration of science into education and treatment methods. The medical profession had not developed the dominant and respected role it has enjoyed this century. This only happened in the U.S. after the 1910 Flexner Report condemned most medical education and led to major new funding and reforms.

Chiropractic was only one of many new groups of healers that emerged at that time - bonesetters, herbal healers, homeopaths, hydro-healers, magnetic healers, osteopaths, Thompsonians, etc. It has proved to be the strongest survivor and is now taught and practised throughout the world.

C. THE ERA OF CONFLICT WITH MEDICINE.

3. A third of the members of Palmer's first graduating class were medical doctors and G.H. Patchin, another physician, helped Palmer edit his primary text, *The*

Chiropractor's Adjuster.[6] But there were plain reasons for conflict between this new profession and medicine. Over the next 75 years these remained, and they included:

a) **Educational Standards**. During the period 1910 to 1950 U.S. medicine greatly improved and consolidated its standards and position in society, buttressed by major funding from the government and private foundations. Chiropractic education remained immature - in terms of entrance standards, program quality and length (the Palmer School only converted from an 18 months course to a 4 year program in 1949), faculty, accreditation and funding. Education remained a tuition-driven private enterprise.

b) **Spirit of Competitiveness**. Frankly speaking, both medicine and chiropractic set themselves up for a fight - and history suggests it benefited them both. Chiropractors claimed to have an alternative and superior fundamental approach to health. Medical doctors, they charged, merely treated symptoms with the remedy of the day. Chiropractors understood the real cause of most ill health - malpositioned spinal vertebrae interfering with the nervous system and thereby obstructing the body's own natural or innate healing power. Patients should abandon drugs, surgery, and medical doctors and get all their primary health care from chiropractors.

Medical doctors, in their turn, needed targets to build their credibility, unity, and the economic and political control of health care in the early twentieth century. Smith-Cunnien has shown that medical criticism of chiropractic has not been consistent, which is what one would have expected if medical criticism was really about chiropractic itself. Criticism was strongest when medicine needed new unity or came under attack - for example when the American Medical Association was building its strength from 1908 to 1924, and then when proposals were made for third party funding of medical care in 1961 to 1976, proposals that would diminish medical control of the relationship with the patient.[7] Chiropractic, because of its combative nature and undeveloped status, was the perfect target.

c) **Excesses and Over-enthusiasm**. As the battle joined, each profession exposed itself through overclaim and overreaction. Chiropractors lionized their new profession, sometimes claiming spiritual authority. Palmer's son, Bartlett Joshua Palmer, was a courageous and vital leader for his profession in his generation, but given to such rhetoric and showmanship that he discredited the profession with medical authorities at the same time as he built it with chiropractors and the U.S. public. In the U.S. he split the profession into a vocal minority that would have no common ground with medicine and a growing mainstream that set about mature standards of education and practice. In Canada he set the profession back a generation by testifying to a Royal Commission in 1915 that "diagnosis was unnecessary, analysis of blood and urine samples was of no value", and that "bacteriology was the greatest of all gigantic farces ever invented for ignorance and incompetency"[8].

BJ Palmer's counterparts for medicine were Morris Fishbein, Secretary of the American Medical Association (AMA) and editor of its journal from 1924 to 1949, and Doyle Taylor. Fishbein portrayed chiropractors as an 'unscientific cult' and 'rabid dogs' in what Wardwell calls "a campaign of vitriolic propaganda" against the profession.[9] He finally became too extreme even for the AMA which, as reported in Harpers[10] at the time, "withdrew its seal of acceptance ... and kicked him into the street" because "physicians who were interested in something besides their fees resented their identification with his low-comedy routine".

Doyle Taylor, Director of the AMA Department of Investigation, was the driving force behind a McCarthy-like Committee on Quackery from 1963 which pursued the avowed and illegal goal of creating a health care monopoly for medicine that would eliminate the chiropractic profession. Many years later this became the subject of the landmark case of *Wilk and others vs. American Medical Association and others* in which a federal appeals court:

i) Found the AMA guilty of an illegal conspiracy "of systematic long-term wrongdoing and intent to destroy a licensed profession".

ii) Found that this was based upon an extensive misinformation campaign portraying chiropractic as 'unscientific' and 'cultist' and being incompatible with modern medical practice. Tactics included suppressing research favorable to chiropractic, undermining chiropractic education, using new ethical rulings to prevent cooperation between medical doctors and chiropractors in education, practice and research, and subverting a 1967 U.S. government enquiry into the merits of chiropractic.

iii) Entered judgment against the AMA, including a permanent injunction or restraining order in these terms:

"The AMA, its officers, agents and employees, and all persons who act in active concert with any of them . . . are hereby permanently enjoined from restricting, regulating or impeding . . . the freedom of any AMA member or any institution or hospital to make an individual decision as to whether or not that AMA member, institution, or hospital, shall professionally associate with chiropractors, chiropractic students, or chiropractic institution."[11]

At the same time there were settlements with other defendants in the case, including the American Hospital Association, the American College of Surgeons, the American College of Radiology, and the Joint Committee on Accreditation of Hospitals. The *Wilk Case*, filed in 1976, was of major significance in ushering in the present era of cooperation. The court di-

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rected that the injunction be sent to all AMA members and published in the *Journal of the American Medical Association (JAMA)*, and there was immediately a significant increase in co-operation in practice, education and research. Medical specialists who had been reluctant to join editorial boards on chiropractic publications, or refer patients to or work in partnership with chiropractors, now did so.

d) **Economic/Legal/Political Issues**. Two generations of American chiropractors were prosecuted for practising medicine without a licence during the first half of the century, and many went to gaol. The first state to license the practice of chiropractic was Minnesota in 1905, the last Louisiana in 1974. The common picture in these battles was chiropractors and their patients opposed by the medical profession, but ultimately prevailing. These struggles kept the professions apart.

e) **Terminology.** This was divisive for two reasons. Firstly chiropractors developed different terminology to defend themselves in court. They did not *diagnose* but rather performed a *spinal analysis,* and they did not offer *treatment* but *spinal corrections.* They were therefore practising a separate profession, they argued, not medicine without a licence.

Secondly, as with any profession, chiropractic adopted and preferred its own terms of art. A chiropractor gave a *spinal adjustment* rather than a *manipulation,* and the spinal problem corrected was a *subluxation.* A major problem with the latter term was that the chiropractic definition (a joint dysfunction) contradicted the medical one (a significant joint displacement visible on x-ray). Medical doctors heard chiropractors saying they did not diagnose and did not treat conditions, but that they corrected subluxations - in circumstances when a medically-defined subluxation was not present. This provided fertile ground for dispute.

f) **Spinal Manipulation**. A further surprisingly strong reason for conflict was the form of treatment adopted by the chiropractic profession - whether called joint adjustment or manipulation. This has never been a part of medical education. In eighteenth and nineteenth century Europe manipulation was provided by lay bonesetters and always attracted medical hostility.

The medical profession has turned on its own few members who have practised manipulation with as much criticism as it has given chiropractors. At the most thorough government inquiry into chiropractic anywhere, in New Zealand in 1978-79, the position of the New Zealand Medical Association (NZMA) witnesses was that no patient should receive spinal manipulation from anyone for anything. Manipulation was dangerous, ineffective, and wrongheaded. NZMA member Dr James Fisk, who had written one of the definitive medical texts on manipulation, was disowned and not called as a witness. Dr James Cyriax in the U.K., Dr John Mennell in the U.S., and Dr John Bourdillon in Canada all encountered similar resistance throughout their careers through to the 1980s.

This has all changed now, with medicine recognising manipulation as a first line of treatment for most patients with back pain (see paragraph 8e below), but that change is recent. If one weighs all the reasons for the era of conflict between medicine and chiropractic, the fact that chiropractors used manipulation - a treatment approach most medical doctors knew nothing about and that was apparently aimed at mechanical joint problems that could not be objectively seen or measured by medical diagnostic methods - was as significant as any other.

Chiropractic History – Key Dates

1895 DD Palmer commences practice as a 'chiropractor'.

1897 The Palmer School of Chiropractic, the first chiropractic educational institution, opens.

1905 Minnesota becomes the first U.S. state to recognise and licence the practice of chiropractic. Louisiana became the last state in 1974.

1923 Alberta becomes the first province to license chiropractic practice in Canada. Ontario follows in 1925. Newfoundland is the last province, in 1992.

1933 The U.S. Council of State Chiropractic Examining Boards is established with a mandate to provide unified standards for licensure. Renamed the Federations of Chiropractic Licensing Boards (FCLB) in 1974.

1939 The Canton of Zurich, Switzerland, becomes the first jurisdiction outside North America to license the practice of chiropractic.

1944 The Foundation for Chiropractic Education and Research (FCER) is established and, to the present time, is the profession's foremost agency for funding of postgraduate scholarship and research.

1963 The U.S. National Board of Chiropractic Examiners (NBCE) is established to promote consistency and reciprocity between state examining boards.

1974 The U.S. Council on Chiropractic Education (CCE) is recognised by the federal government as the accrediting agency for schools of chiropractic. This leads to the development of affiliated accrediting agencies in Canada, Europe, and Australia/New Zealand.

1979 *Chiropractic in New Zealand*, the report of the NZ Commission of Inquiry into Chiropractic, is published. This was the first government commission to adopt a full judicial procedure, hearing evidence on oath and subject to cross-examination when examining patients, chiropractors, medical doctors, and others on the role of the chiropractic profession. The Commission's recommendations strongly endorse chiropractic services and call for medical cooperation. The report has a major impact internationally.

1987 Final judgment in the *Wilk vs American Medical Association* case entered, opening the way for much greater cooperation between medical and chiropractic doctors in education, research, and practice in the U.S. and, as a result, internationally.

1988 World Federation of Chiropractic(WFC) is formed. The WFC, whose members are national associations of chiropractors in over 70 countries, is admitted into official relations with the World Health Organisation (WHO) as a non-governmental organisation or NGO in January 1997.

1993 The *Manga Report* in Canada, the first government-commissioned report by health economists looking at the cost-effectiveness of chiropractic services, recommends a primary role for chiropractors with back pain patients on grounds of safety, cost-effectiveness and patient preference, and concludes this will save hundreds of millions annually in direct health care costs and work disability payments.

1994 Government-sponsored expert panels developing evidence-based guidelines for the management of patients with back pain in the U.S. (Agency for Health Care Policy and Research)[1] and the U.K. (Clinical Standards Advisory Group)[2] provide the first authoritative reports that manipulation is a proven and preferred treatment approach for most patients.

1996 U.S. government commences official funding support for an ongoing agenda for chiropractic research. To continue this agenda the Consortial Center for Chiropractic Research is formed in 1997, comprising chiropractic schools, university research departments and federal government agencies, and is based at Palmer College of Chiropractic.

References

1. Bigos S, Bowyer O, Braen G et al (1994) *Acute Low Back Problems in Adults. Clinical Practice Guideline No.14.* AHCPR Publication No. 95-0642. Rockville, MD; Agency for Health Care Policy and Research, Public Health Service, U.S. Department of Health and Human Services.

2. Rosen M, Breen A et al (1994), *Management Guidelines for Back Pain* Appendix B in *Report of a Clinical Standards Advisory Group Committee on Back Pain,* Her Majesty's Stationery Office (HMSO), London.

continued from page 1

tion of the dysfunctional SI joint. This was reported as "clinically successfully" in that most of the functional and pain provocation test results normalized immediately after treatment.

d) 3-dimensional x-ray studies, using roentgen stereophotogrammetric analysis (RSA), were performed before and after manipulation. This is a well-documented method for showing minor 3-dimensional movements. Calculations are by computer, and therefore eliminate observer bias. The studies showed no alteration in the SI joint - in the relationship between the sacrum and the ilium - after manipulation.

e) The three medical authors agree that SIJ manipulation produces sound clinical results, and reference several controlled studies in support of this. They conclude that further studies on the effects of SIJ manipulation "should focus on soft-tissue response instead of on skeletal positioning."

Chiropractors will be interested in two further points. Firstly the chiropractic literature is referenced - this is now common in medical journals but was not five years ago. Secondly the expert selected by *Spine* to contribute a Point of View discussing the study is a chiropractor, Dr. David Cassidy.

(Tullberg T, Blomberg S et al (1998) *Manipulation Does Not Alter the Position of the Sacroiliac Joint: A Roentgen Stereophotogrammetric Analysis*, Spine 23(10):1124-1129.)

North America

1. **California Debate - The Role of Chiropractic**. At the California Chiropractic Association's Annual Convention in San Diego in June two interdisciplinary teams, each comprising a nationally prominent attorney, chiropractor and medical specialist, debated the proposition *For Success the Chiropractic Profession must Offer the Public the Alternative of Drug Free Primary Care, Not the Services of a Neuromusculoskeletal Specialist.* The medical specialist opposing the motion was Professor Vert Mooney, Department of Orthopedic Surgery, University of California at San Diego and Past-Chairman of the International Society for the Study of the Lumbar Spine. Thought-provoking comments from him included:

• In the future the US health care system is only going to pay for evidence-based care - whether from a surgeon, chiropractor or anyone else.

• A recent survey of medical graduates in the US asked them to rank the areas of practice for which they felt the most and least competence following their education - overall the area of perceived least competence was the treatment/rehabilitation of the musculoskeletal system.

• These factors, together with the good evidence for chiropractors as neuromusculoskeletal specialists, "leave a lot of room for chiropractors" as specialists but less room as generalists for whole body healing. Besides this, Mooney quipped, because of their better knowledge and expertise specialists get paid more!

2. **Palmer College Announces New President**. In late August Palmer College announced that its new President, following the retirement of current President Dr. Virgil Strang in November, will be Dr. Guy Reikeman of Colorado Springs. Dr. Reikeman, who currently serves as Director of Professional Development, is a prominent lecturer and spokesperson for the profession known to many chiropractors through his affiliations with Renaissance, Quest, and the 1995 centennial celebrations during which he produced the Chiropractic Centennial Foundation's major documentary on the chiropractic profession.

3. **US and Canada - Appropriateness of Chiropractic Care**. A 1991 RAND Report gave appropriateness ratings for spinal manipulation for low-back pain - the clinical circumstances in which manipulation is appropriate, of uncertain appropriateness, and inappropriate having regard to the literature and the clinical experience of a multidisciplinary expert panel.

An important follow-up study has just been published - a random sampling of patients from 131 chiropractic practices across the US and Canada to see whether spinal manipulation is being given 'appropriately' by chiropractors. Shekelle, Coulter et al conclude that, on average, it is. "The greatest proportion" (46%) of patients had indications for spinal manipulation. In 25% of cases indications were uncertain, in 29% of cases care was judged inappropriate on the RAND criteria. These appropriateness results, say the researchers, are similar to findings for medical procedures, and provide reassurance to physicians thinking of referring patients.

This study assumes greater significance because it is specifically addressed to internists and is published in the *Annals of Internal Medicine*, the official journal of the American College of Physicians and American Society of Internal Medicine - American physicians trust what they read there. The article refers to the AHCPR back pain guidelines which "can be expected to significantly increase the number of patients referred by medical physicians to chiropractors". It encourages internists to "offer spinal manipulation as a therapeutic option of accepted efficacy" and concludes that "in many settings, referral to a chiropractor is the most practical way" of achieving this option.

(Shekelle PG, Coulter I et al (1998) *Congruence Between Decision: To Initiate Chiropractic Spinal Manipulation for Low Back Pain and Appropriateness Criteria in North America*, Ann Intern Med 129:9-17.)

4. **Quebec Task Force on Whiplash - Validity of Conclusions Questioned**

A critical evaluation of the Quebec Task Force Report on Whiplash Associated Disorders, challenging the validity of the report's conclusions and saying that it brings more confusion than the light to the troubled area of whiplash disorders, has now been published in *Spine*.

The authors, led by Michael Freeman DC PhD MPH, a chiropractic and public health researcher from the Department of Public Health and Preventive Medicine, Oregon Health Sciences University School of Medicine, Portland, points to "five distinct and significant" categories of error - selection bias in the literature, information bias in the patient cohort study, unconventional use of terminology, conclusions and recommendations unsupported by the literature that was accepted by the Quebec Task Force, and inappropriate conclusions from the cohort study.

The most telling criticism is in the key area of conclusions and recommendations alleged to be unsupported by the literature - and specifically in the area of whether whiplash injuries are generally benign and self-limited. On this:

a) Freeman et al reference the various passages in which the Quebec Task Force describes whiplash injuries as "benign" and "almost always self-limited". The Task Force concludes that "the clinical management of WAD (*whiplash associated disorder*) patients should recognize that most WAD .... is self-limited".

Elsewhere the Task Force emphasizes "favourable prognosis" which, say Freeman et al, is a description usually given to "conditions that are known to spontaneously resolved without any residual symptoms or disability."

b) Freeman et al say the Task Force has no authority for these conclu-

sions. Its two sources of evidence are a literature review and the patient cohort study it performed on patients in Quebec in 1987 who received compensation for whiplash injuries.

c) With respect to the cohort study, information was gathered on number of days on compensation but not on symptoms, treatment received, degree of functional impairment, or residual pain and impairment when the patient stopped receiving compensation. Accordingly, this cohort study provides no evidence to support the description of WAD as benign or self-limited or having a favourable prognosis.

d) With respect to the literature review, the four studies on prognosis accepted by the Task Force for review do not support the Task Force's conclusions - Norris and Watt found that 66% of their cohort had neck pain at an average of two years after injury; Hildingsson and Toolanen reported that 44% of patients were symptomatic two years after the accident; and in two studies Radinov et al found that 27% of patients were symptomatic six months after the accident, both for headache and neck pain. No studies cited support a favourable prognosis.

Freeman et al then conduct a literature search themselves for "other studies that contradicted the Task Force's conclusions that whiplash injuries are short-lived, self-limited and temporary in nature". 27 studies were found which followed acute whiplash injury patients for more than six months. 11 met acceptable minimum criteria as described. They showed that 1 in 3 (33.2%) of whiplash patients still have chronic pain and symptoms two years after the injury.

Insurers have been quick to endorse the findings of the Quebec Task Force because these findings support limited treatment for disorders with a limited natural history. Freeman et al's expert analysis is thus of practical importance to chiropractors and other health professionals who manage patients with these problems. Yes, patients need to have active and time-limited care, yes there needs to be much more known about optimal treatments - but no, a badly sprained neck for someone who must continue with the daily stresses of his/her life is not shown by clinical practice or the literature to be a simple and time-limited injury.

(Freeman MD Croft AC et al (1998) *"Whiplash Associated Disorders: Redefining Whiplash and Its Management" by the Quebec Task Force*, Spine 23(9):1043-1049.)

Europe

1. **Switzerland - Status Report**

Switzerland, which is a federation of cantons, was the first country in Europe to regulate and provide funding for chiropractic services. The regulation of health falls mainly within the jurisdiction of the cantons. Zurich was the first to regulate chiropractic in 1939, Geneva the last in 1959.

The federal government administers national sickness and accident insurance plans. Chiropractic was included in the sickness plan in 1964, and coverage was extended to the accident plan and the military in 1984. The federal scope of chiropractic practice for these insurances is "physical medicine with the exception of pharmacology and surgery". This includes diagnosis and the right to use or order imaging, including CT scans and MRI, and laboratory tests. Chiropractors have the right to complete disability certificates for work and other purposes on a similar basis to medical doctors.

Each canton also has a regulated scope of practice for chiropractic services. Most are consistent with the federal scope of practice. Some are slightly more limited but the federal scope of practice would prevail in litigation if there was a dispute. Switzerland, which has approximately 180 chiropractors, has no school of chiropractic but does have strict educational requirements. To be licensed a chiropractor must complete the first year of medical school in Switzerland, chiropractic professional training outside Switzerland at an accredited chiropractic college recognized under Swiss law, and then a two year internship with a licensed chiropractor in Switzerland. Educational requirements, including mandatory continuing education, are administered by the Swiss Chiropractic Institute whose current director is Dr. Jean Robert of Geneva. The current President of the Association of Swiss Chiropractors is Dr. Heini Kohler of Lucerne, Vice-President is Dr. Jacqueline Robert of Geneva.

2. **Hungary - Chiropractic Program at World Congress of Medical Law**

The 12th Congress of the World Association of Medical Law (WAML), co-sponsored by the World Health Organization and the International Council of Nurses and attended by approximately 500 registrants from over 50 countries, was held in Siofok, Hungary, August 2-6, 1998. At the invitation of the WAML the World Federation of Chiropractic presented a session on chiropractic 'medico-legal' issues - speakers were Dr. Scott Haldeman of the USA (risks, benefits and appropriateness of cervical manipulation), Mr. David Chapman-Smith of Canada (cervical manipulation and informed consent in the US and Canada), Dr. Niels Nilsson of Denmark (inter-referral issues between medical and chiropractic doctors in a country with chiropractic legislation) and Dr. Sira Borges of Brazil (inter-referral issues in a country without chiropractic legislation). The next biennial World Congress will be held in Helsinki, Finland August 6-10, 2000.

3. **Research** *Cervical Range of Motion - Natural Variation.* Christensen and Nilsson from the University of Odense, Denmark measured 40 asymptomatic subjects six times over a three week period to assess natural variations in the active and passive cervical ranges of motion (ROMs). The natural variation for both active and passive ROMs was found to be approximately 20^0 for flexion/extension, and 12^0 for lateral flexion, and 14^0 for rotation. This is quite large - you will want to allow for it when measuring your patients. (Christensen HW, Nilsson N (1998) *Natural Variation of Cervical Range of Motion: A One-Way Repeated-Measures Design*, J Manipulative Physiol Ther, 21(6):383-387).

Asia/Pacific

1. **Spinal Manipulation in China.** In the July/August issue of JMPT, Professor Li Y-Kai of the Department of Traditional Chinese Medicine, First Military Medical University, Guangzhou, China, provides some interesting insights into spinal manipulation in China. He confirms the well-known facts that manipulation has been used since ancient times in China and that today most hospitals in China have traditional Chinese medicine (TCM) departments where spinal manipulation is fully integrated with Western medical practice.

Lesser known facts are that TCM employed massage therapy much more than joint manipulation and that joint manipulation is relatively new and undeveloped in China in modern times. Chinese manipulative therapists, who are trained in TCM rather than Western medicine, only developed formal education programs in the 1980s and still have no separate association or academic society. However formal training programs have spread rapidly during the past 10 years and five new journals are now publishing case studies and other clinical research. (Li YK Zhong sz (1998) *Spinal Manipulation in China*, J Manipulative Physiol Ther 21(6):399-401).

Main Article: *continued from page 3*

D. The 1970s – the Winds of Change

4. Until the end of the 1970s the chiropractic profession was still establishing its full infrastructure:

1) The legal right to practise and licensing legislation in all U.S. states and then internationally.

2) Sound educational standards and government-recognised accrediting agencies that guaranteed these standards.

3) A credible research agenda, with appropriately qualified research scientists and peer-reviewed scientific journals.

It took this long because the profession worked in isolation from medicine and the mainstream health care system. It enjoyed no public funding. Pause to reflect upon the profound effect there would be on medical education and research if there was no public funding. Because the practice of chiropractic made little use of technology and no use of drugs, the profession had no strong financial allies. Pause to consider medicine with no support from the pharmaceutical industry. Chiropractic was both isolated and opposed. It is true to add that the profession aggravated its situation with internal rivalries and conflict.

5. By the late 1970s many signs of maturity and imminent change were evident:

a) In 1974 the U.S. government formally recognised the Council on Chiropractic Education (CCE) as the accrediting agency for chiropractic educational institutions.

b) In 1975 chiropractic researchers were invited to the first U.S. federally-funded research conference on spinal manipulation, held at the National Institutes of Health, Bethesda.[12]

c) In 1979 the first major interdisciplinary text with chiropractic and medical authors was released, *Modern Developments in the Principles and Practice of Chiropractic*[13] edited by Scott Haldeman DC MD PhD, a chiropractor and neurologist.

d) In the same year the *Journal of Manipulative and Physiological Therapeutics (JMPT)*, the first peer-reviewed chiropractic journal, commenced publication.

e) In 1977 in Australia,[14] and 1979 in New Zealand,[15] the first comprehensive government commissions of inquiry into chiropractic delivered independent findings strongly supportive of the contemporary chiropractic profession, and calling for close cooperation between chiropractic and medicine in education and practice in the public interest.

The winds of change were blowing firmly as the 1980s began.

E. The 1980s – New Common Ground with Medicine.

6. Although all health professions have their trade associations and political and economic interests, most individual health professionals spend their daily lives in close personal contact with patients. Fundamentally they support the best interests of their patients. This is true of most medical doctors and chiropractors.

By the early 1980s the public had spoken clearly, providing this foundation for new common ground between the two professions:

a) There was wide public acceptance and use of chiropractic services, particularly for two of the three most common reasons the public uses health care services - headache and back pain.

b) As a large U.S. national survey from Stanford University has now confirmed, chiropractic patients generally use both chiropractic and medical services and want cooperation between their chosen health care providers.[16]

c) The medical profession acknowledged that their approach to management of back pain was - as patients had demonstrated with their choices - largely ineffective. Rest and medication, and a focus on the herniated disc and other structural pathology, were inappropriate. Back pain was usually a 'biopsychosocial' problem. Most patients needed early return to normal activities, reassurance, and non-prescription drugs and/or manipulation for pain relief and correction of functional pathology in joints and muscles. This was consistent with a chiropractic approach.

d) Chiropractors, likewise, had shed their earlier simplistic claim that all back pain was the result of spinal subluxation. When medical doctors had said back pain was either the result of structural pathology or, in the absence of that, was largely psychological, and chiropractors had said it was caused by subluxation, there was no basis for understanding. Now they shared the same model.

e) The mainstream chiropractic profession reacted to higher educational qualifications, the responsibilities of licensure, the wishes of patients, and the increasing inter-referral of patients and contact with the medical profession by moderating its claims as to the scope of practice of chiropractic. Chiropractic was not an alternative approach to healing based on theories inconsistent with modern medicine. It was different in emphasis only, and complementary. It focused on manual and other non-invasive treatments primarily for neuromusculoskeletal disorders

7. The new spirit of cooperation, despite continuing controversy at the political level, was evident. In education the faculty of chiropractic colleges now included medical doctors and basic scientists, many of whom also held appointments at medical schools. At the postgraduate level, chiropractors were now admitted to the meetings of medical societies such as the North American Spine Society (NASS) and new interdisciplinary organisations such as the American Back Society in the U.S. and the Physical Medicine Research Foundation in Canada.

In research there was growing cooperation. In 1984, reflecting the history of conflict, the journal *Manual Medicine* had replied to Dr. Howard Vernon, a chiropractic researcher submitting a trial for publication, with the brief and remarkably frank response that the journal "does not publish any research from a chiropractic source." But by 1986, two years later, it did.

In 1985 the *Canadian Family Physician*, the official journal of the Royal College of Family Physicians of Canada, published *Spinal Manipulation in the Treatment of Low-Back Pain* by Kirkaldy-Willis and Cassidy, an orthopedic surgeon and chiropractor reporting excellent results from their work together at the Royal University Hospital in Saskatoon and encouraging much greater cooperation between family physicians and doctors of chiropractic.[17] In the U.S. medical researchers at the RAND Corporation, and in the U.K. epidemiologists funded by the Medical Research Council, were working with chiropractic researchers on a consensus study[18] and a major clinical trial[19] that would support the appropriateness and effectiveness of manipulation for acute and chronic back pain. In Perth, Australia, Lynton Giles DC PhD was producing anatomical research at the University of Western Australia that was being published in leading medical journals.[20,21]

In daily practice there was steady growth of inter-referral of patients in all countries where the chiropractic profession was established. A 1989 survey from the University of Toronto reported that, by the end of the 1980s, a clear majority of family physicians in Ontario (62%) were referring patients to chiropractors, and that nearly 1 in 10 (9.5%) were patients themselves. All family physicians with a chiropractor in the same building or mall were making referrals.[22] It was not until the 1990s, however, that it became usual for chiropractic and medical doctors to practise in the same clinic or hospital, increasingly in formal partnerships.

F. The 1990s – Reasons for Cooperation

8. During the past ten years there has been quite dramatic growth in public and medical acceptance of chiropractic services. Chiropractic has "gained a legitimacy within the United States health care system that until very recently seemed unimaginable" say Cherkin and Mootz as already quoted in the introduction above. Main reasons for the acceptance of chiropractors into mainstream health care may be summarized as follows:

a) Improved standards of chiropractic education. In many countries chiropractic education has now been incorporated into the publicly-funded university system - for example Australia, Brazil, Canada, Denmark, England, South Africa and Wales. In the U.S. chiropractic colleges remain private but have minimum standards of governance and education established by the Council on Chiropractic Education, the accrediting agency for the chiropractic profession recognized by the government since 1974.

b) Improved standards of regulation of chiropractic practice.

c) The final judgment, after years of appeals, of the *Wilk Case* in 1987. In the U.S. this finally made it possible for medical doctors to cooperate with chiropractors in all aspects of education, research and practice without fear of loss of hospital and other privileges essential to their practices and income.

d) Articles favorable to chiropractic in medical journals published by medical associations (e.g. *Annals of Internal Medicine*, American College of Physicians,[23,24] *British Medical Journal*, British Medical Association.[19] *Canadian Family Physician*, Royal College of Family Physicians of Canada.[17] These have signalled to physicians that it is now truly safe and appropriate to work with chiropractors.

e) Other research and clinical guidelines for practice. Today almost every issue of *Spine*, the most respected medical journal in its field and one that has editorial boards in North America, Europe and Japan, has chiropractic research. Government-sponsored evidence-based guidelines for practice in many countries, but most prominently in the U.S.[25] and the U.K.[26] in 1994, have recommended spinal manipulation as a first line approach to the management of most patients with back pain.

f) Patient demand. A better informed public that is taking more control of its health care is placing new demands on all health care providers, and requiring cooperation between medical and complementary and alternative health practitioners.

g) The evolution of health care. The dental and medical monopolies of 25 years ago have been replaced by health care systems which include, regulate, and fund many independent specialised professionals with whom dentists and medical doctors must work. Dentists see their patients also attending independent dental hygienists, denturists and dental nurses - and chiropractors for TMJ problems. Medical doctors must work with acupuncturists, massage therapist, midwives, naturopaths, nurse practitioners and specialists, optometrists, osteopaths, podiatrists, many others - and chiropractors.

9. This historical review now closes with further recent examples of acceptance. In the United States, federal government funding for chiropractic services, which has existed for many years under Medicare and Medicaid, has since 1995 been extended to programs for the military and their families. In addition since 1996 the government has established and funded a Consortial Center for Chiropractic Research comprising representatives of chiropractic schools, university research departments and federal government agencies. It is based at Palmer College of Chiropractic and has an ongoing agenda for chiropractic research.

In Canada there is federal and provincial government funding for chiropractic services. The recent decision by York University, Toronto to establish a chiropractic program in affiliation with the Canadian Memorial Chiropractic College follows the example of the University of Quebec, which commenced its program five years ago.

In the United Kingdom the British Medical Association has actively supported the increased recognition and integration of chiropractic services into the British health care system which has occurred during the 1990s, on the grounds that many BMA members wish to refer patients to chiropractors.[27] Internationally the World Health Organization's 1997 decision to admit the World Federation of Chiropractic, which represents national chiropractic associations in over 70 countries, into official relations as a non-governmental organization or NGO is another sign of the evolution to acceptance.

In some countries this evolution is far from complete, principally because there are few or no chiropractors in practice. Indeed the practice of spinal manipulation remains a medical act in some European countries such as France, Hungary and Spain where there is still no legislation to recognize the chiropractic profession. But the root causes of conflict with medicine are gone and there is no medical specialty that can provide the public with the equivalent of chiropractic services. Chiropractic, like dentistry, is a diagnosing, primary contact profession complementary to medicine but with separate training and practice. The new integration of chiropractic into mainstream healthcare services offers benefits to all - physicians, chiropractors, and their mutual patients. TCR

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