

THE CHIROPRACTIC REPORT

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CURRENT U.S. MEDICAL POLICIES ON CHIROPRACTIC (Table 1)

American College of Surgeons

- "There are no ethical or collective restraints to full professional cooperation between doctors of chiropractic and medical physicians".
- Such cooperation should include "referrals, group practice, participation in all health care delivery systems, treatment and services in and through hospitals, participation in student exchange programs between chiropractic and medical colleges, and cooperation in research and continuing education programs".

American College of Radiology

- "There are and should be no ethical or collective impediments to inter-professional association and cooperation between doctors of chiropractic and medical radiologists in any setting where such association may occur, such as in a hospital, private practice, research, education, care of a patient or other legal arrangement".

American Hospital Association

- The AHA "has no objection to a hospital granting privileges to doctors of chiropractic for the purposes of administering chiropractic treatment, furthering the clinical education and training of doctors of chiropractic, or having x-rays, clinical laboratory tests and reports thereon made for doctors of chiropractic and their patients and/or previously taken x-rays, clinical laboratory tests and reports made available to them upon (patient) authorization".

The Chiropractic Profession

A. Introduction

Chiropractic (Greek: treatment by hand) arose as a separate profession in the United States in the 1890s. In that era of heroic medicine many alternative disciplines emerged - chiropractic has been the strongest survivor.

Through to the end of the 1939-45 war chiropractic was truly flamboyant and controversial. Under Bartlett J. Palmer, son of the profession's founder, the Palmer College of Chiropractic in Davenport Iowa grew from 24 students in 1906 to 3100 in 1923. Gibbons records that in 1912 the Illinois Medical Journal described B.J. Palmer as "... the most dangerous man in Iowa out of a prison cell. (He) is insane, a paranoiac, a man whose irresponsibility is criminal".¹

After 1924, when Palmer's authority in the profession began to wane, many chiropractors agreed. U.S. state chiropractic associations passed resolutions condemning him. On the other hand a Harvard University medical professor who visited Palmer in the 1940s judged him "one of the three geniuses I have met in my life". He hosted three U.S. presidents - Coolidge, Hoover and Truman - at his home, and a prominent modern sociologist Wardwell has concluded that "without B.J. Palmer chiropractic would almost certainly not have survived".²

Under Palmer's influence and fuelled by a mixture of patient loyalty, intermittent imprisonment, and the vigorous opposition of medicine, chiropractors naturally enough indulged in overclaim and lionized their profession. Some viewed their role in frankly spiritual terms.

However this, like Palmer himself, is history. Many things have changed since the War ended in 1945, at which time medical science had yet to perform its first controlled clinical trial. Some changes, such as the transformation of Japanese trade, are well known. Some, such as the comparable transformation of the chiropractic profession - from controversial beginnings to considerable maturity - are less well known.

What of chiropractic in 1988? This Report now presents:

i) Basic facts

ii) The findings of recent government inquiries. In a world too full of unresearched opinions and partisan claims, the best government inquiries present the most reliable evidence.

iii) Common questions answered. Response on issues that always arise when other professionals discuss chiropractic.

B. Basic Facts

1. Chiropractic is now the third largest primary health care profession in the western world after medicine and dentistry. There are approximately 36,000 chiropractors in the United States, 3,000 in Canada, 2,000 in Australia, 1,000 in Japan, 300 in France, and 100-300 in each of Belgium, Denmark, Great Britain, Italy, Norway, Sweden, Switzerland, New Zealand and South Africa. The profession is established, though in small numbers, in other European countries, Asia, Africa, the Middle East and South America.

2. Over 50% of the profession has graduated since 1977 - a statistic of great significance in appraisal of the profession today. (See para 6).

3. The profession has always presented itself as a natural and conservative source of health care, offering an alternative to medication and surgery. Accordingly it makes no use of drugs or surgery and, unlike osteopathy in the United States, has no aspirations to do so. Medical reservations on this point are quickly put to rest upon first-hand experience of chiropractors and chiropractic offices. The profession's central interest has always been the relationship between impaired movement of spinal vertebrae and the nervous system, and the effect of this on health. Its principal treatment is joint adjustment (see para 19) or manipulation. This is supplemented by a wide range of physical therapy modalities. (Laws in a few jurisdictions prevent this.) (on conditions treated, see para 22).

4. Legislation licensing the practice of chiropractic exists in all U.S. states, the Canadian provinces, the Australian states, New Zealand, South Africa and Switzerland. Common features in all these jurisdictions, together with others such as the United Kingdom where practice is legal without specific authorizing legislation, are:

- Primary care (direct contact with patient)
- The right and duty to diagnose
- The right to use diagnostic x-ray.

5. Major chiropractic colleges exist in the United States (17), Australia (2), Canada and England. Newer colleges exist in France and Japan (2). A number of European countries, such as Denmark and Switzerland, have

Special Issue: A report on chiropractic in 1988 for health professionals and others.

formal postgraduate requirements for returning graduates.

Depending upon country chiropractic education is either within the university system (e.g. Australia) or in private colleges (e.g. United States and Canada).

6. The foundation for the modern chiropractic profession was laid in the 1960s with the formation of the U.S. Council on Chiropractic Education (CCE), which gained formal recognition by the U.S. Office of Education in 1974. The CCE and its affiliates provide an international accrediting agency for chiropractic education, specifying uniform minimum educational standards. These include:

a) Entrance requirements (in North America 2 years of university study in qualifying sciences - at the Canadian college approximately 70% of students during the 1980s have held a university degree before entering chiropractic college) and

b) A structured four or five year chiropractic college program. Independent investigation by government inquiry and medical practitioners affirms that chiropractic undergraduate training is today of equivalent standard to medical training in all pre-clinical subjects.^{3,4} On contemporary faculties chiropractors are joined by appropriate basic science and medical specialists - whose absence provided just criticism of chiropractic education in former times.

7. The move to a modern health science education in the 1960s created a splinter group within the chiropractic profession in the United States, but not elsewhere except for isolated individuals, called the 'straights'. The distinctive feature of straight chiropractors is that they say it is not their responsibility or interest to perform a diagnosis. They only assess spinal subluxation (see para 14). Accordingly they have a more limited scope of education. There are two colleges of straight chiropractic, the Pennsylvania School in Langhorne, Pennsylvania and the Sherman College in Spartanburg, South Carolina. These colleges oppose, and have no status with, the accrediting agency CCE. As a result an increasing number of U.S. states are refusing licensure to graduates. This led to the straight chiropractic movement challenging the authority of CCE in the courts - following protracted litigation lost at each level, their final appeal failed in 1987.

The presence of the small straight chiropractic faction in the United States has caused confusion, and thus had a large adverse impact on the chiropractic

profession internationally. There is obvious inconsistency in claiming the right of primary health care yet resisting the training and the duty to diagnose. This point, central to patient safety, has now been made by a number of U.S. courts dealing with malpractice claims against straights, recently by the New Jersey Supreme Court in *Rosenberg v Cahill*.⁵

8. The cost of chiropractic treatment is met fully or in part under government health care plans in the United States (Medicaid and Medicare), Canada, Denmark, Norway, and Switzerland. All modern government inquiries into chiropractic - the most thorough being in New Zealand (1979), Australia (1986) and Sweden (1987) - have recommended government funding for chiropractic services. Workers are entitled to elect chiropractic care under Workers Compensation Board legislation in the United States, Canada, Australia and New Zealand.

9. As a general rule private health insurance companies provide coverage for chiropractic services wherever the profession has become established. The degree of coverage varies. In North America a number of large unions have negotiated unlimited coverage for their members. Generally there is full coverage for diagnosis and treatment to a maximum dollar amount per individual or family per annum. Sometimes only part of the cost is covered, and there is dovetailing with government funding. In Denmark, for example, chiropractic costs are generally met one-third each from government reimbursement, private insurance and the patient.

C. Government Inquiries

10. There have been six formal government inquiries into chiropractic worldwide during the past 20 years. These have criticized past excesses and the continuing practices of some elements within the profession, but found contemporary chiropractic health care safe, effective, cost-effective and recommended licensure and government funding. They have all criticized the level of antipathy and mis-information between the chiropractic and medical professions (with faults on both sides) and expressly called for cooperation in the interests of patients.

11. Government inquiries, like research, are of widely varying quality and some deserve little credibility. Of importance are the qualifications of the commissioners, the terms of reference, the procedures adopted for hearing and testing evidence, and the degree of opportunity to hear all relevant evidence.

Acceptance of chiropractic involves three distinct problems for the average MD - understanding the chiropractic profession, the historical antipathy of medicine towards spinal manipulation by anyone, and the large amount that remains unknown about the anatomy and neurophysiology of back pain. (What, for example, are the comparative roles of the disc, the facets, and the sacroiliac joint in the production of proximal and referred pain? Does the sacroiliac joint move, can it be fixated, is there any point to its adjustment or manipulation?)

Consider these comments from John Bourdillon, MD, FRCS, trained in orthopaedic surgery and manipulation at St. Thomas' Hospital, London, author of the text 'Spinal Manipulation', and past president of the North American Academy of Manipulative Medicine:

"My interest in the other schools of manipulative therapy was stimulated by a number of patients whose backs I had manipulated without success, who were kind enough to let me know that subsequent visits to non-medically qualified manipulators had given satisfactory relief... One of the patients was a woman whose low lumbar spine I had explored on two occasions and from whom I had removed disc protrusions at both the lumbosacral joint and the L4-5 joint. In spite of this she was still crippled by severe symptoms. (Dr. Turner) succeeded in relieving her and I continued to treat her for many years afterwards when she had recurrences.

The main trouble in her case was a sciatic radiation of pain caused by a sacroiliac strain and I well remember my blank feeling of disbelief when Dr. Turner suggested this possibility. "How", I said to myself, "can the sacroiliac joint possibly cause a sciatica when there is no conceivable means by which any of the nerves of the sacral plexus can be pressed on by such a joint strain?" Dr. Turner's results and my subsequent experience have, for me, completely proved that a sacroiliac strain can be the cause of a sciatica, but the precise means by which this pain reference is produced remains a matter of theory for which adequate experimental proof is still lacking". 'Spinal Manipulation' (1982) Bourdillon J.F. Heinemann Medical Books, London, Appleton-Century-Crofts, New York, 3rd Edn, 13.

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On these criteria - see Table 2 - the most comprehensive and detailed independent examination of chiropractic ever undertaken was that in New Zealand in 1978/79. The Commission's report, 'Chiropractic in New Zealand' (377 pages)⁶ has obvious authority and balance. It followed extensive investigations by the Commission conducted in New Zealand, the United States, Canada, England and Australia. The following principal findings appear in the introduction to the Report:

- Modern chiropractic is far from being an "unscientific cult".
- Chiropractic is a branch of the healing arts specialising in the correction by spinal manual therapy of what chiropractors identify as biomechanical disorders of the spinal column. They carry out spinal diagnosis and therapy at a sophisticated and refined level.
- Chiropractors are the only health practitioners who are necessarily equipped by their education and training to carry out spinal manual therapy.
- General medical practitioners and physiotherapists have no adequate training in spinal manual therapy, though a few have acquired skill in it subsequent to graduation.
- Spinal manual therapy in the hands of a registered chiropractor is safe.
- The education and training of a registered chiropractor are sufficient to enable him to determine whether there are contra-indications to spinal manual therapy in a particular case, and whether the patient should have medical care instead of or as well as chiropractic care.
- Spinal manual therapy can be effective in relieving musculoskeletal symptoms such as back pain, and other symptoms known to respond to such therapy, such as migraine.
- In a limited number of cases where there are organic and/or visceral symptoms, chiropractic treatment may provide relief, but this is unpredictable, and in such cases the patient should be under concurrent medical care if that is practicable.
- Chiropractors do not provide an alternative comprehensive system of health care, and should not hold themselves out as doing so.
- In the public interest and in the interests of patients there must be no impediment to full professional cooperation between chiropractors and medical practitioners.
- It is wrong that the present law, or any medical ethical rules, should have the effect that a patient can receive spinal manual therapy which is subsidised by a health benefit only from those health professionals least well qualified to deliver it.
- The responsibility for spinal manual therapy training, because of its specialised nature, should lie with the chiropractic profession. Part-time or vacation courses

in spinal manual therapy for other health professionals should not be encouraged.

The Commission, in answer to the basic question before it, recommended government funding for chiropractic services. There were also recommendations concerning discipline, interprofessional ethics, hospital access and government funded research to be conducted jointly by the chiropractic and medical professions. This Report remains the best reading for impartial conclusions on all aspects of the chiropractic profession.

12. In Australia a Medicare Benefits Review Committee⁷ was established in July 1984 and asked by the Federal Minister for Health "to consider requests for extending the scope of Medicare (government funded health) arrangements to provide benefits for certain paramedical services". These included chiropractic services.

For various reasons, including breadth of terms of reference and non-judicial procedure (detailed written evidence was submitted, and the Committee met with participants, but evidence was not given orally on oath or subject to cross examination), the Australian report is of less weight on chiropractic.

However, all of the findings of the New Zealand report were accepted. In addition:

- In reviewing the international research evidence available to 1986, the Committee noted that it was "particularly true of chiropractic" that there had been "a significant shift in the last decade in attitude towards the issue of scientific research". The Committee regarded criticism of chiropractic research "as something of a 'red herring', as did the New Zealand report into chiropractic".⁸
- It recommended funding for chiropractic in hospitals and other public institutions, saying: "We are aware of the very considerable organizational and professional obstacles ... Orthodox practitioners and, indeed, some chiropractors may initially find the experience an uneasy one, but we consider the differences that currently exist to be unreasonable and efforts should be made to bridge the gap".
- "... the continuing schism between the two professions does little to help improve the health of the many Australians who might benefit from a joint chiropractic/medical approach to their problems".⁹

13. The most recent government report on chiropractic, in 1987, is from a Commission on Alternative Medicine in Sweden. Sweden currently has no legislation regulating the practice of chiropractic, approximately 100 chiropractors educated in accredited colleges, and several hundred other practitioners and lay persons calling themselves 'chiropractor'.

The Commission comprised representatives of government and education, one MD, and

NEW ZEALAND COMMISSION (Table 2)

Terms of Reference

To consider whether government health and accident compensation benefits should be made available for chiropractic services having regard to the practice and philosophy of chiropractic, its scientific and educational basis, whether it constituted a separate and distinct healing art, and the contribution it could make to New Zealand health services.

Membership

Brian D. Inglis Q.C., B.A. J.D. LL.D. Chairman. A senior litigation lawyer, and Professor of Law, Victoria University, Wellington. Now a judge.
Betty Fraser, M.B.E., M.A. a prominent educationalist.
Bruce R. Penfold, M.Sc., Ph.D., F.R.S.N.Z. Professor of Chemistry, University of Christchurch.

Procedure

Public judicial hearings. Evidence given orally, but on basis of a written submission filed with the Commission and available to principal parties at least 30 days prior to allow time for informed cross-examination. On oath and subject to examination by all interested parties, including legal counsel representing the chiropractic, medical and physiotherapy professions.

Evidence was recorded verbatim and appears in a 3638 page typewritten transcript. This record assisted cross examination and proper evaluation of evidence, and is referenced by the Commission in its report in support findings made.

In addition there were some private hearings, impromptu visits to chiropractic practices to observe the profession at work, and personal investigation of chiropractic, medicine, and physiotherapy in the United States, Canada, England and Australia - see Report for details.

Depth of Inquiry

The Commission's opportunity to hear evidence was extremely wide, since there were no restraints on time, and both medicine and chiropractic worldwide saw this as the test case for chiropractic. Consumer, chiropractic, medical and physiotherapy witnesses from the United States, Europe, Canada and Australia came to give evidence at the New Zealand hearings. The Commission and all parties contemplated an inquiry of under six months, the inquiry in fact required over 18 months.

one chiropractor. It did not hold judicial hearings, but conducted detailed investigation of chiropractic education, had the scientific literature assessed by university medical faculty, and commissioned a demographic survey by Statistics Sweden. At present only a summary of the report is available in English.¹⁰

The Commission's findings were consistent with those in Australia and New Zealand. It reported:

- Chiropractors with the Doctor of Chiropractic degree "should become

registered practitioners and be brought within the national insurance system in Sweden”.

- “DCs follow a 4-5 year course of university level training ... in its pre-clinical parts ... found to be the equivalent to Swedish medical training”. They have “competence in differential diagnosis” and should be regulated on a primary care basis.
- “Measures to improve cooperation between chiropractors, registered medical practitioners and physiotherapists are vital” in the public interest.

D. Common Questions

The Chiropractic Subluxation

14. A common medical allegation is “the chiropractic subluxation (the spinal lesion that chiropractors treat) has no objective existence at all”. This is said to be confirmed by the fact that medical radiologists cannot see such subluxations on x-ray. The position is complicated by the fact that modern medicine has a competing definition of ‘subluxation’.

15. Vertebral subluxation is the term given by chiropractors to an entity with these essential elements:

- Abnormal function (movement) in a spinal joint (motion segment)
- Neurological and vascular involvement
- Often, but not necessarily, a structural (static) displacement of a vertebra.

It is essentially a functional entity, involving restricted vertebral movement in one or more planes of motion, and unless there is structural mis-alignment is no more visible on x-ray than, by analogy, a limp or any other functional problem.

16. The concept of subluxation is not unique to chiropractic. Its equivalents are the ‘osteopathic lesion’ and the ‘segmental blockage or blockade’ of the European manual medical school.

On account of the confusion of terminology, and the artificial barriers to understanding this can create, many North American chiropractors today simply refer to ‘spinal dysfunction’ or a ‘manipulatable lesion’. There is irony in this since, as Terrett explains¹¹, medical authors during the 18th and 19th centuries used subluxation in the chiropractic sense, not the modern medical one.

17. The chiropractic subluxation attracts further criticism because, historically, chiropractors gave the simplistic explanation that it involved pinching the nerve at the intervertebral foramen thereby interfering with the nerve supply. At times it does as medical authors agree. But in the 1980s the chiropractic profession understands (and provides a significant part of the research showing) that the mechanisms involved include compression, stretch, irritation and reflex pathways that health science is only beginning to understand.

18. The whole issue of subluxation was

debated at length before the New Zealand Commission, the NZ Medical Association claiming there was no objective evidence of such lesion. After hearing all the expert evidence the Commission disagreed. It quoted an experienced orthopaedic surgeon on the need for intensive training to recognize joint abnormalities:

“The necessity for this training is not always appreciated and its neglect may well lead to the impression among non-manipulators that the manipulator is imagining the abnormality and that he spends his time treating something that does not exist. This difficulty can perhaps be compared to that of a novice trying to read Braille. Distinguishing the pattern of the raised dots is easy for those who have had sufficient practice. However, it is quite impossible for those like myself who have not - and to the beginner the idea that it might be possible seems unbelievable.”¹²

Adjustment

19. Chiropractors prefer the word ‘adjustment’ to ‘manipulation’ because it signifies something more controlled, specific and skilled. Leading practitioners of manual medicine and osteopathy have now adopted the term also.¹³

Today a wide range of manipulative techniques have been shared between the different schools of manipulative health care. It is not generally appreciated that the classic chiropractic adjustment techniques, although quick, are in no way forceful or violent. To quote the New Zealand Commission:

“... it is alleged that (chiropractic) technique consists mainly of the ‘dynamic thrust’. This is claimed to be dangerous because it is a sudden high-velocity movement, the patient cannot see what is being done, cannot resist the thrust, and is therefore at the chiropractor’s mercy.

Until the Commission saw chiropractors at work it imagined from such descriptions that this was the only way the chiropractor operated while the physiotherapist with his gentle articulations, extension, or mobilization was a very different practitioner. *The truth is that while the chiropractor’s movements are indeed often quick, perhaps more so than those of the physiotherapist, they are also usually small and precise.* The most forceful manipulations we saw were performed by physiotherapists”¹⁴

Incompatible Philosophy

20. The zealous and unsupported assertion of many early chiropractors was that the vertebral subluxation, influencing the nervous system, was the source of all or most disease. This is as historical as a then current medical technique, bloodletting with the leech. This skeleton in the chiropractic cupboard, rattled by a fringe movement of extremists as exist in any profession, has proved a continued barrier to understanding and cooperation between the chiropractic

and medical professions.

The best proof for MDs that chiropractic is today a modern health science compatible with medicine is to meet a local chiropractor and observe his/her practice. The next best evidence is to talk to a colleague who has a settled inter-referral relationship with a chiropractic. At the individual level there is today conspicuous and widespread cooperation between chiropractic and medicine at the levels of education, research and practice. In many North American cities, including Toronto, a large number of MDs and DCs practice in offices in the same health centre with close cooperation and inter-referral, sometimes in full and formal partnership.

Further evidence is the dramatic change in medical ethical rulings concerning chiropractic in recent years, concerning which:

- Most medical associations throughout the western world have changed former ethical rulings against referral to chiropractors during the past 15 years.
- In the United Kingdom, where the General Medical Council changed its ethics on referral to chiropractors and other non-medical health care providers in 1979¹⁵, a recent survey of general medical practitioners showed that 50% had referred patients for non-medical spinal manipulation during the past 12 months.¹⁶
- The American Medical Association (AMA) changed its ethics to allow referral in 1980.

21. Last year the American College of Radiologists, the American College of Surgeons, and the American Hospital Association all adopted express new policies of cooperation with chiropractic. (See Table 1). This was prompted by litigation against them and the AMA. The AMA was found to have breached antitrust laws during 1966-1980 in conspiring to restrict cooperation between individual MDs and chiropractors in order to eliminate chiropractic as a competitor in the U.S. health care system. A patient care defense advanced by the AMA, alleging justifiable concerns about the practice of chiropractic, failed. The court found itself obliged to make a direct ruling on credibility against the AMA on this matter.¹⁷

The court also found that *the basis of the AMA’s illegal boycott of chiropractic, was the calculated portrayal of chiropractors as unscientific, cultist and having a philosophy incompatible with scientific medicine.* If you have the feeling this may be true, you should reflect upon the sources of your information, and what direct evidence you have to contradict the findings of a number of detailed government investigations. It is useful to reflect upon the growing number of inter-professional organizations - such as the American Back Society - that have chiropractors and MDs as officers and members sharing current research and clinical experience.

Conditions Treated

22. Studies in North America, Europe and Australia report that approximately 80% of chiropractic practice is for musculoskeletal pain, with low-back pain the predominant presenting complaint. Another 10% is for headache and migraine, concerning which there is now some controlled trial evidence of effectiveness.¹⁸ (It is sometimes said that chiropractic treatment provides only temporary relief - Parker et al's migraine trial, joint medical and chiropractic research, led to a follow-up study showing that cure/improvement was maintained at 20 months.¹⁹)

The remaining 10% includes a wide variety of disorders caused fully or in part by spinal lesions. This is the 10% that concerns many MDs who have little exposure to manipulative health care. Much needs to be said here, but central issues are:

- No responsible chiropractor today claims to cure organic disease through adjustment of the spine. There is no research to support such a claim. However, clinical experience suggests that vertebrogenic pain plays an often unsuspected role in many conditions.
- The claims of modern chiropractors in this area, and their clinical experiences, are shared by all professions engaged in spinal manual therapy – including medicine, osteopathy and physiotherapy. Kunert, a West German cardiologist, prominent in the European manual medicine school in the 1950s and 1960s, gives case examples where the medical diagnoses were respiratory block and heart disease. On reference to his specialized unit, the primary causes were found to be vertebral problems corrected by spinal manipulation.²⁰ Following extensive clinical and research experience he concluded that “lesions of the spinal column ... are perfectly capable of simulating, accentuating or making a major contribution to organic diseases. There can ... be no doubt that the state of the spinal column does have a bearing on the functional status of the internal organs”.²⁰
- Lewit, a Prague neurologist currently at the head of the manual medicine movement in Europe and whose major text has recently been translated into English, writes at length of his experimental and clinical experience using spinal manipulation to treat patients with respiratory problems, heart disease, digestive problems, gynecological disorders, migraine, vertigo/dizziness and other conditions.²¹
- Grieve, a noted and well-published English physiotherapist, says:
“All those experienced in manipulation can report numerous examples of migrainous headaches, disequilibrium (vertigo), subjective visual disturbances, feelings of retro-orbital pressure, dysphagia, dysphonia, heaviness of a limb, extrasegmental paraesthesia, restriction of respiratory excursion, abdominal nausea and the cold sciatic leg being relieved by manual or mechanical treatment of the vertebral column; but while these effects are noted, and the underlying mechanisms investigated with the purpose of understanding better what we do, they are insufficient reason to put the cart before the horse. In other words, the prime impulse for physical treatment of the vertebral column is properly vertebral column disorder, and not visceral disorder”.²²
The final sentence could well have been written by a chiropractor. (For more comprehensive treatment of this subject see this Report Vol. 1 No. 3 (March 1987)).

Safety

23. The two issues, raised before every inquiry into chiropractic, are safety of treatment and risk of delayed diagnosis of conditions that require medical treatment. Both alleged dangers have never been substantiated as significant and, in a chapter devoted to safety, the NZ Commission concludes that chiropractic treatment “is remarkably safe”.

24. The one material risk arising from chiropractic treatment is vertebral artery syndrome (VAS) following cervical adjustment,

which may lead to stroke. The incidence and mechanisms are reported better in the chiropractic literature^{23,24} than elsewhere.

The risk, however, is extremely remote - about .002% or 2-3 cases per million treatments. Medical specialists agree.^{25,26} This compares with a 1-2% risk of paralysis from neurosurgery on the cervical spine (15,000 cases per million),²⁷ often performed for similar degenerative conditions.

25. Critics of neck manipulation might reply that risk must also be weighed against benefit, and that there are few controlled trials evidencing the benefit of neck manipulation. (But see Parker et al para 22 for one). Two points in reply are:

- There are no trials evidencing benefits from neck surgery, and few for any physical treatments by anyone.
- As with surgery, there is a wealth of clinical experience of success of neck manipulation - used daily not only by chiropractors but thousands of respected practitioners worldwide within the professions of medicine and osteopathy. Robert Maigne, M.D. a prominent French specialist in manual medicine, writes: “The cervical region offers the manipulator a wide field of action” and “cervical painful syndromes -post-traumatic pain or pain associated with cervical arthrosis with a resulting stiff neck - always react well to manipulations”.

“If one judges the results obtained by cervical manipulations, one must conclude that the headaches of cervical origin are the most frequent ones among common headaches”.

“Let us state it once that although acute (low-back pain) constitutes a good indication for manipulation, traumatic cervical pain ... offers still better therapeutic opportunities for manipulation”.²⁸

26. For reasons we can surmise, there are grossly exaggerated reports of danger. A recent case in Boston, U.S., first reported in the medical community as stroke following chiropractic treatment - and probably retained in memory by many as such - was subsequently analyzed in the New England Journal of Medicine and found to have no connection.²⁹

Research

27. The chiropractic profession has failed to produce a reasonable volume of research in the past. Chiropractors can give reasons that carry considerable force - such as major trial design problems³⁰ that have resulted in a dearth of clinical research in physical medicine generally,³¹ exclusion from public facilities and funding, and the financial priorities of survival and upgrading undergraduate education - but there has been a neglect.

28. In the last 10 years the profession has established a strong research presence for its size. This has been aided by the emergence of a cadre of competent researchers, strong funding within the profession, and a new era of cooperation with medicine. There has been work of major importance concerning chronic low-back and leg pain.³² Currently four major controlled trials of chiropractic treatment of back pain are underway - in Canada, England and the United States (2). All involve the cooperation of medical and chiropractic researchers, and three are comparing the effectiveness of chiropractic and medical treatment of low-back pain. One trial, being conducted at the Palmer College of Chiropractic, has yielded a pilot study that has important new advances in trial design³³ (which include new blinding techniques, and greater clinical relevance).

Over-treatment/Patient Dependency

29. Some chiropractors over-treat, most do not. This problem exists for all professions. Points that can only be touched upon in the space available are:

- Figures worldwide show much fewer visits per patient than critics suppose. In Ontario, where government benefits are available for up to 22 treatments per annum, only approximately 8% of patients have used that maximum in recent years.

- Some conditions require ongoing treatment, as in medicine and physical therapy. This is readily apparent if one thinks of the nature of spinal disorders and the impact of continuing with a lifestyle that aggravates them.
- The view that manipulation either works in one or two treatments or not at all, which comes from the British medical approach, is not shared by most in the medical profession with long experience of manipulation. On this see Lewit's recent editorial entitled 'Manipulation - Reflex Therapy and/or Restitution of Impaired Locomotor Function' which concludes:
 - a) Manipulation has received much greater acceptance by medicine in recent years, but its real importance is not recognized.
 - b) Most medical manipulators stop treatment "after obtaining a striking short-lived effect ... (but) here precisely lies the main source of therapeutic failure and frustration; ...".
 - c) "The great majority of (medical) students and doctors who learn manipulation are taught far too little about how, where, and when to use it ... they are clinically blindfolded".
 - d) The practice of spinal manipulation understanding all the many forms of disturbed function of the motor system, "requires great skill demanding long training; this is not achieved by everybody whereas other methods of reflex therapy such as using the needle ... appear to be easier and more in keeping with the habits of the medical profession".³⁴

E. Conclusion

30. At a recent large inter-professional symposium in London leading medical and chiropractic researchers and clinicians welcomed the new spirit of cooperation between their professions. They agreed with the finding of recent government inquiries that better inter-professional understanding and cooperation were overdue and vital to the interests of patients. A prominent British orthopaedic surgeon, John O'Brien, gave a stark illustration of this in observing that thousands of hysterectomy operations are performed annually following mis-diagnosis of referred pain from the lumbar spine which would generally respond excellently to skilled spinal manipulation.

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The New Zealand Inquiry, after looking at the matter more thoroughly than anyone before or since, decided in 1979 that the "remorseless and unrelenting opposition of organized medicine" to chiropractic was based on three main factors:

- the history of chiropractic"
- "ignorance coupled with mis-information about modern chiropractic theory and practice"
- "unprofessional conduct by some chiropractors". This article seeks to dispel the remarkably widespread misunderstanding of the modern chiropractic profession.

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