

THE CHIROPRACTIC REPORT

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Chiropractic Education and Licensure

A. Introduction

1. Worldwide spinal manipulation is most commonly associated with, and practised by, chiropractors. With the exception of osteopathy in Australia and the United Kingdom and Chinese traditional medicine in China, the chiropractic profession has the only undergraduate professional program that qualifies graduates for the practice of manual health care including spinal manipulation. Medical doctors and physical therapists/physiotherapists (PTs) who decide to practice manipulation typically attend part-time postgraduate courses which vary greatly in quality.

2. The medical profession has traditionally been critical of the safety and effectiveness of spinal manipulation, and of the educational qualifications and practice skills of chiropractors. However research in the 1980s, now distilled in recent government reports and practice guidelines^{5,6,7} has established that manipulation - and particularly chiropractic manipulation or adjustment - is superior to alternative medical treatments for most patients with back pain in terms of safety, effectiveness, cost effectiveness, and patient satisfaction.

This reversal of fortunes has produced strong new medical interest in manipulation. It has left MDs with two alternatives:

a) To refer patients who will benefit from manipulation to those in their community most trained to provide it - usually chiropractors. Many MDs are doing this. Recent surveys in the U.S.⁸ and Canada⁹ show a majority of family physicians referring and viewing chiropractors as "an excellent source of care for musculoskeletal problems". The Journal of Family Practice, endorsed by the American Academy of Family Physicians, has recently provided guidelines for referral.²

b) To try to develop the necessary diagnostic and treatment skills through part-

time postgraduate courses, and create some new entity within medicine that suggests qualifications and specialty status. The problem with this, quite simply, is that the practice of manual health care including spinal manipulation is acknowledged by everyone to be a complex specialty completely beyond the scope of short-term courses. To quote two of the most published and prominent medical authorities worldwide during the past 40 years:

• "To learn when to manipulate and when not, and what sort of manoeuvres to use, is a diagnostic problem involving years of study... (It) requires a high degree of knowledge and skill." James Cyriax MD, England.¹⁰

• "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* ... the practice of spinal manipulation understanding all the many forms of disturbed function of the motor system, *requires great skill demanding long training.*" Karel Lewit MD, Czech Republic.¹¹

3. However the medical profession has great dominance and cultural authority over matters of health in modern society, and some medical societies and individual MDs are prepared to trade on that reputation and claim competence to practise spinal manipulation on the basis of little or no education. Some of the more remarkable and unholy examples in recent years are:

a) In Australia during the mid 1980s the Royal College of General Practitioners, unbelievably, through its journal *The Australian Family Physician*, conducted a \$100 correspondence course in spinal manipulation.¹²

b) In the United Kingdom at the same time Grayson MD in *The British Medical Journal* advised general medical practitioners to commence practice of spinal manipulation on the following basis:

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1995 Centennial Celebrations

Canada: May 31 to June 4, Toronto, Ontario. United States: July 5-10, 1995, Washington DC (incorporating the 1995 World Chiropractic Congress) and September 13-17, 1995, Davenport Iowa. Clear those dates now.

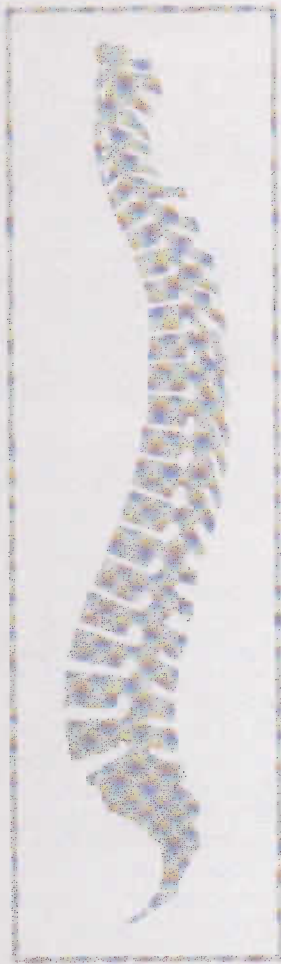


Table 1 Independent Assessments of Chiropractic Education

• "During their entire training students receive a solid foundation (in the biological sciences) and a knowledge of disease and disease states similar to those taught in medical schools ... one-third of the training concentrates on chiropractic diagnosis and treatment (which) guarantees a high quality of training in manipulative medicine."

Jiri Dvorak MD, Editor, Journal of Manual Medicine, neurologist, assessing the program at the National College of Chiropractic, Chicago.¹

• "Probably the most powerful" concern MDs have regarding chiropractic is "suspicion regarding the extent, depth and validity" of their education, "particularly the possibility of missing a serious disease."

"Doctors of chiropractic are highly trained practitioners, qualified and licensed to diagnosis disease entities and to refer patients when the treatment necessary is out of their scope of practice. In 1979 a Commission of Inquiry found the basic sciences at North American chiropractic schools to be equivalent to those taught at medical schools."²

Peter Curtis MD, Department of Family Practice, University of North Carolina, Chapel Hill, a physician with extensive practical, educational, and research background in manual medicine.

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"Courses including manipulation (lasting about a week) are run for doctors and physiotherapists by the Cyriax Foundation and by the Society of Orthopedic Medicine, and intensive weekend courses for doctors are held by the British Association of Manipulative Medicine. These courses provide clinicians with the knowledge and the necessary manual skills to start treating patients safely. Doctors will then need at least six to nine months of regular practice to begin to feel that they are treating the right patients and doing so appropriately - and years to become fully experienced and confident.¹³

c) Most recently, in the U.S. and Canada, Dr. Murray Katz, a physician and journalist with an eye for an opportunity but no formal qualifications to practise manual medicine, has:

i) Created the new name and specialty of 'orthopractic'.

ii) Formed a private for-profit corporation called Orthopractic Manipulation International Inc. - of which he is the sole director - to develop and market the new specialty.

iii) Opened 'membership' in a 'society' to all MDs and PTs, regardless of whether they have any training or qualifications in the practice of manipulation.

iv) Set to work with unsuspecting medical associations and consumer groups to market orthopractic as the one safe competent source of manipulation.

His preferred style, to gain medical support and publicity, has been to misrepresent and denigrate chiropractic education and practice. For example, writing in a recent issue of *The Medical Post* in Canada he says:

"Allowing graduates of The Canadian Memorial Chiropractic College... the right to use x-ray machines as well as complete examinations of patients gives the public the false impression these graduates are qualified to know what they're doing."¹⁴

(This is plainly libelous, and *The Medical Post* has already published a complete retraction and apology.¹⁵)

4. This raises the question - what educa-

tion does a chiropractor receive? How is that education regulated? Is chiropractic practice regulated? Recent surveys show there is surprisingly little public awareness of these matters. Accordingly, this Report reviews and explains chiropractic education and licensure - generally and in terms of spinal manipulation.

B. Chiropractic Education

General

5. Chiropractic is practised in over 60 countries. Legislation licensing this practice, and regulating the necessary minimum educational qualifications for practice, exists in all U.S. states, Canadian provinces, Australian states, Cyprus, Denmark, Iceland, Hong Kong, Mexico, New Zealand, Norway, Panama, South Africa, Sweden, Switzerland, the United Kingdom, the West Indies (Barbados, Leeward Islands), and Zimbabwe.

In all these jurisdictions minimum qualifications for entry to practice include:

a) Pre-professional qualifications. (In the U.S. and Canada these are a minimum of two years college/university credits in qualifying subjects).

b) Graduation from a professional undergraduate program in an accredited chiropractic college. This program has a minimum of 4 full-time academic years. It leads to a doctor of chiropractic degree (DC) in the U.S. and Canada, a bachelor of science in chiropractic (BSc(Chiro)) in countries such as Australia and England where chiropractic education is within the university system.

c) National and/or state licensing board examinations. (For details, see para 12.)

Thus, in North America, a chiropractor has a minimum of six years college/post secondary education. In addition, to gain a licence and the right to practise, a chiropractor must have passed national and state/provincial exams as required by independent boards established by law to regulate the practice of chiropractic - on a similar basis to medicine, dentistry, and the other recognized health professions.

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Table 1: continued from page 1

• "Doctors of chiropractic follow a four to five year course of university level training...in its pre-clinical parts found to be the equivalent of Swedish medical training...and have competence in differential diagnosis."³

Commission on Alternative Medicine in Sweden, 1987, comprising government officials and representatives of education and medicine, recommending that chiropractors be fully recognized and brought within the Swedish national health insurance system. The commission assessed chiropractic education in Europe and North America.

• "Clearly there are two distinct and strongly held points of view (on education for manipulation): that of the physiotherapist (PT) and that of the chiropractor.

The PT learning his technique as he does in a fragmented fashion, first very sketchily at a physiotherapy school, then in a course spread over three years or more in small sections, contends that while practice is essential there is little point in over-refinement of what is only a strictly limited range of techniques. The chiropractor, on the other hand, in his four or five years at college has a much greater and more systematic exposure to techniques. He naturally believes that the expertise he achieves before he uses these techniques, unsupervised, on his patients, must with further practice give him a greater ability to help those patients."

"...Chiropractors must by reason of their intensive and concentrated training be regarded as specialists both in the diagnosis of spinal disorders which will respond to spinal manual therapy and in that therapy itself. The Commission finds as a fact that neither medical practitioners nor PTs... are adequately equipped by their standard training courses to carry out spinal manual therapy although a few, by subsequent training and experience, have acquired skill in that therapy.

The Commission accepts the evidence of Dr. Haldeman (*Dr. Scott Haldeman, DC, MD, PhD, chiropractor and neurologist, Los Angeles*) and holds, that in order to acquire a degree of diagnostic and manual skill sufficient enough to match chiropractic standards, a medical graduate would require up to twelve months full-time training, while a PT would require longer than that."⁴

New Zealand Commission Inquiry into Chiropractic, 1979, after assessing chiropractic education in the U.S., Canada, and Europe. Accepted as the most thorough independent assessment yet performed.

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6. Chiropractic education was first established in the 1890s in the U.S., which now has 16 accredited chiropractic colleges (see Table 2). Other colleges exist in Australia (2), Canada (2), Denmark, England, France, Japan (2), New Zealand, South Africa (2), and Sweden.

Depending on the country chiropractic education is either within the university system (eg. Australia, Denmark, England, and South Africa) or in private colleges (eg. Japan and the United States). In Canada one program is in a university (University of Quebec), one in a private college (Canadian Memorial Chiropractic College, Toronto).

Goals of Education

7. The goals of contemporary chiropractic education are to graduate a primary-contact health care practitioner, competent in the specific principles and practice of chiropractic, and able to work independently and in a health care team with other professionals as necessary. This means that there are three fundamentals:

- A full grounding in anatomy, pathology, and the other biological sciences on a similar basis to medical students.
- Ability to perform a general and differential diagnoses, to assess health status and screen out patients requiring medical or other care, and to perform a precise neuromusculoskeletal diagnosis as a basis for chiropractic care.
- Education in the distinctive principles and skills of the chiropractic profession. What, in summary, are the principles of the chiropractic approach to health care?

A comparison with medicine is helpful, because traditionally the chiropractic and medical professions have approached patients from different perspectives. Medical practice, partly because of its origins and partly because of reimbursement systems, has emphasized external interventions - principally drugs and surgery - to address specific pathology arising from trauma and disease.

Chiropractic, by contrast, has emphasized the capacity of the body to maintain its own normal state of health. Chiropractic care uses natural methods - manual and physical treatments,

nutritional counselling, patient education and exercise regimes - to help the body to maintain its natural curative processes.

There is an emphasis on correct function of the musculoskeletal system, particularly the spine, and the effects of this on the regulatory function of the nervous system. To a chiropractor the spine involves nerves, bone, and muscle, not just bone. The practice of joint adjustment or manipulation is primarily based upon neurology, not orthopedics.

There is an emphasis on prevention, patient involvement in health, and the whole person and environment. For example, two of the most common complaints of patients who seek chiropractic care, headache and back pain, are seldom caused simply by physical pathology that can be successfully 'cured' with medication or surgery. These are usually 'biopsychosocial' problems - they have causes related to physical (bio), psychological (psycho), and lifestyle (social) factors.

The physical cause is more often a problem of 'function' rather than 'structure', and is more suitably treated by physical measures (eg. massage, manipulation, ice/heat, electrotherapy, traction) that assist the body to restore its own balance (homeostasis).

Accreditation

8. Although many chiropractic colleges are private institutions, they are not free to establish their own entrance requirements, curriculum, faculty, governance, and facilities. Uniform minimum requirements are established in these and other areas through an internationally based accreditation system.

This began in the 1960s in the U.S. with the formation of the Council on Chiropractic Education (CCE) and its Commission on Accreditation. CCE has had official status with the U.S. Department of Education since 1974 and is the sole accrediting agency for chiropractic education in the U.S. Affiliated agencies now exist in Australia and New Zealand, Canada, and Europe.

Undergraduate Professional Program

9. This, following fulfillment of entrance requirements, typically consists of four or five academic years in chiropractic college with a minimum number of 4,200 classroom hours. In North America the curriculum is commonly covered in 10 trimesters.

10. A sample curriculum for an accredited chiropractic college in North America¹⁶ appears in Table 3 (on page 4). With respect to this note:

- The program is taught in 5 divisions (listed down the page at left) over 4 years (listed across the page).
- It is similar to a medical school curriculum, having the same basic sciences (eg. biochemistry, anatomy - including dissection, and pathology) and clinical sciences (eg. orthopedics & rheumatology, clinical psychology, laboratory & x-Ray diagnosis, differential diagnosis). However there are two significant differences:
- Firstly, subjects found in both the chiropractic and medical curricula are taught with a different emphasis. For example, first year study of anatomy emphasizes the musculoskeletal system (which represents 60% of the body, but is given relatively little emphasis in undergraduate medical study), the nervous system (neuroanatomy) and their interrelationships - because these are of fundamental importance to chiropractic principles and scope of practice.

Table 2

U.S. Accredited Chiropractic Colleges

Cleveland Chiropractic College	Kansas City	Missouri
Cleveland Chiropractic College	Los Angeles	California
Life Chiropractic College	Marietta	Georgia
Life Chiropractic College-West	San Lorenzo	California
Logan College of Chiropractic	Chesterfield	Missouri
Los Angeles College of Chiropractic	Los Angeles	California
National College of Chiropractic	Chicago	Illinois
New York Chiropractic College	Seneca Falls	New York
Northwestern College of Chiropractic	Minneapolis	Minnesota
Palmer College of Chiropractic	Davenport	Iowa
Palmer College of Chiropractic-West	San Jose	California
Parker College of Chiropractic	Dallas	Texas
*Sherman College of Straight Chiropractic	Spartanburg	South Carolina
Texas Chiropractic College	Houston	Texas
University of Bridgeport-College of Chiropractic	Bridgeport	Connecticut
Western States Chiropractic College	Portland	Oregon

*Applicant for accreditation

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d) Secondly, there are some distinctly different areas of study. In chiropractic education there is little on pharmacology and surgery - just an introduction and overview - because use of prescription drugs and surgery is not within the scope of practice of chiropractic. However these subjects are replaced with chiropractic sciences, subjects for which there is only a general introduction in medical education. Thus, for example:

i) Over the first three years there are 341 hours of biomechanics - general, spinal, and clinical (See *Chiropractic Sciences*).

ii) Under Chiropractic Skills (see *Chiropractic Sciences*) and Clinical Observation (see *Clinical Education*) there are over 750 hours in the first three years providing groundwork in manual diagnosis and treatment techniques. This is prior to supervised treatment of patients during internship in the fourth year.

iii) Because the general practice of chiropractic, unlike medicine but like dentistry, involves the use of diagnostic x-ray, there is thorough education in radiology (See *Clinical Sciences* and

Clinical Education). Chiropractors are licensed to take and interpret plain film x-rays. More sophisticated imaging (eg. CT scans, MRI) is ordered from radiologists - specialists from either a chiropractic or medical background who have done post-graduate specialty training.

Chiropractic College Faculty

11. Quality of education depends not only upon the content of the curriculum but also the qualifications of the faculty and the faculty-student ratio. These matters are also subject to CCE minimum requirements.

It is sometimes thought, wrongly, that the faculty of chiropractic colleges comprises only doctors of chiropractic (DCs). To assess the multidisciplinary qualifications and appropriateness of faculty at an accredited chiropractic college see Table 3 (on page 5). This gives the faculty at the Canadian Memorial Chiropractic College, the college so freely criticized by Dr. Katz. It is noted:

a) There are a 115 faculty members, 53 full-time and 62 part-time, for a college with 585 students.

b) Teaching the basic sciences (see

Biological Sciences) there are:

- 13 faculty members holding PhDs or other university doctorates in their disciplines (one also an MD, two also DCs)
- 4 with masters degrees (one also a DC)
- 4 medical doctors
- 4 doctors of chiropractic (all holding other university degrees and postgraduate qualifications representing a minimum of five years postgraduate training).

c) DCs on faculty who hold only chiropractic qualifications (29) or a bachelors degree only (33) are, as one would expect, teaching chiropractic and clinical sciences, and supervising internship and other clinical education.

Board Licensing Examinations

12. In North America and elsewhere where the practice of chiropractic is regulated by law, a graduate chiropractor must pass national and state/provincial licensing board examinations prior to receiving a licence to practise.

In the United States:

a) The regulatory process for chiropractic

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Table 3 SAMPLE CURRICULUM AT AN ACCREDITED CHIROPRACTIC COLLEGE

DIVISION	FIRST YEAR	HRS	SECOND YEAR	HRS	THIRD YEAR	HRS	FOURTH YEAR	HRS
BIOLOGICAL SCIENCES	HUMAN ANATOMY	180	PATHOLOGY	174	LAB DIAGNOSIS (II)	32	CLINICAL NUTRITION	26
	MICROSCOPIC ANATOMY	140	LAB DIAGNOSIS (I)	40	TOXICOLOGY	13	COMMUNITY HEALTH	39
	DEVELOPMENTAL ANATOMY	28	MICROBIOLOGY & INFECTIOUS DISEASES	100				
	NEUROANATOMY	72	SYSTEMS PHYSIOLOGY	87				
	NEUROSCIENCE (I)	32	NEUROSCIENCE (II)	87				
	BIOCHEMISTRY	112	NUTRITION	58				
	PHYSIOLOGY (I)	36	IMMUNOLOGY	13				
CHIROPRACTIC SCIENCES	CHIROPRACTIC PRINCIPLES (I)	56	CHIROPRACTIC PRINCIPLES (II)	58	CHIROPRACTIC PRINCIPLES (III)	42	INTEGRATED CHIROPRACTIC PRACTICE	95
	BASIC BODY MECHANICS	96	CHIROPRACTIC SKILLS (II)	145	CLINICAL BIOMECHANICS	100	JURISPRUDENCE & PRACTICAL DEVELOPMENT	46
	CHIROPRACTIC SKILLS (I)	100	SPINAL MECHANICS	42	CHIROPRACTIC SKILLS (III)	145		
					AUXILIARY CHIROPRACTIC THERAPY	58		
					INTRO. JURISPRUDENCE & PRACTICE DEVELOPMENT	16		
CLINICAL SCIENCES	NORMAL RADIOGRAPHIC ANATOMY	16	INTRO. DIAGNOSIS	87	ORTHOPEDICS & RHEUMATOLOGY	92	CLINICAL PSYCHOLOGY	46
	RADIATION BIOPHYSICS & PROTECTION	44	INTRO. BONE PATHOLOGY	48	NEURODIAGNOSIS	42	EMERGENCY CARE	52
			NORMAL ROENTGEN. VARIANTS & ROENTGENOMETRICS	39	DIFFERENTIAL DIAGNOSIS	32	CHILD CARE	20
					DIAGNOSIS & SYMPTOMATOLOGY	116	FEMALE CARE	25
					RADIOLOGICAL TECHNOL. ARTHRITIS & TRAUMA	39	GERIATRICS	29
						48	ABDOMEN, CHEST & SPECIAL RADIOGRAPHIC PROCEDURES	40
CLINICAL EDUCATION	OBSERVER (I)		OBSERVER (II)		OBSERVER (III)	406	INTERNSHIP	752
							AUXILIARY CHIROPRACTIC THERAPY CLERKSHIP	33
							CLINICAL LAB CLERKSHIP	21
							CLINICAL X-RAY TECHNOL.	71
							CLINICAL X-RAY INTERPRETATION	69
							CHIROPRACTIC MGMT. OBSERVER (IV)	31
RESEARCH					APPLIED RESEARCH & BIOMETRICS	32	RESEARCH INVESTIGATIVE PROJECT	
TOTALS		912		978		1213		1390

Table 4

SAMPLE CHIROPRACTIC COLLEGE FACULTY¹

QUALIFICATIONS	BIOLOGICAL SCIENCES	CHIRO. SCIENCES	CLINICAL SCIENCES	CLINICAL EDUCAT.	RESEARCH & POSTGRAD	LIBRARY	RESEARCH	ADMIN.	TOTAL
D.C.	--	4	1	15	3	--	--	1	24
D.C. & DIPLOMA ²	--	1	1	3	--	--	--	--	5
D.C. & B.S. ³	--	6	11	10	5	--	1	--	33
D.C. & B.S. & DIPLOMA	1	1	1	3	1	--	1	--	8
D.C. & M.S. ⁴	1	2	--	--	--	--	--	2	5
D.C. & M.Sc. & DIPLOMA	--	2	--	1	--	--	--	--	3
D.C. & Ph.D.	2	--	--	--	--	--	--	--	2
D.C. & M.D.	--	--	1	--	--	--	--	--	1
R.T.	--	--	5	2	--	--	--	--	7
L.T.	--	--	--	--	--	1	--	--	1
LLB.	--	1	--	--	--	--	--	--	1
B.A. & B.L.S.	--	--	--	--	--	1	--	--	1
M.S./M.A.	3	--	--	--	--	--	1	--	4
Ph.D./Psy.D.	10	--	1	--	1	--	1	3	16
M.D.	3	--	--	--	--	--	--	--	3
M.D. & Ph.D.	1	--	--	--	--	--	--	--	1
TOTAL	21	17	21	34	10	2	4	6	115

1. CANADIAN MEMORIAL CHIROPRACTIC COLLEGE, TORONTO, 1990-91

2. DIPLOMA = POSTGRADUATE CHIROPRACTIC DIPLOMATE OR FELLOWSHIP (E.G. IN RADIOLOGY, ORTHOPEDICS, NEUROLOGY)

3. B.S. = UNIVERSITY BACHELOR'S DEGREE, USUALLY IN SCIENCES

4. M.S. = UNIVERSITY MASTER'S DEGREE, USUALLY IN SCIENCES

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education and practice has given rise to two national organizations:

i) **The Federation of Chiropractic Licensing Boards.** The FCLB, established in 1933, seeks to unify standards and requirements of individual state boards (and other regulatory boards worldwide), and publishes their licensure requirements. It is affiliated with, and has appointed members on:

ii) **The National Board of Chiropractic Examiners.** The NBCE, established in 1963, has developed sophisticated examination systems that are now used nationally and internationally. A DC seeking a licence to practise must typically pass these Board examinations administered by NBCE:

- **Part I** - basic science in 6 areas (general anatomy, spinal anatomy, physiology, chemistry, pathology, and microbiology and public health).

- **Part II** - clinical science in 6 areas (general diagnosis, neuromusculoskeletal diagnosis, X-ray, principles of chiropractic, chiropractic practice, and associated clinical sciences).

- **Part III** - clinical competency in 9 areas (case history, physical examination, neuromusculoskeletal examination, roentgenologic examination, clinical laboratory and special studies examination, diagnosis/clinical impression, chiropractic techniques, supportive techniques, and case management).

Currently all 51 U.S. jurisdictions recognize (require or accept) Part I, 50 recognize Part II, and 44 recognize Part III.

b) Final responsibility to regulation lies with the state licensing board, whose examining boards comprise DCs, laypersons, and/or MDs. Most state boards administer their own practical

and jurisprudence examinations in addition to recognizing the National Board exams.

c) It is not commonly known that prior to 1965, at a time when chiropractic examining boards had fewer resources, chiropractors in most U.S. states took the same basic science board examinations as medical doctors. Accordingly they were required to meet the same standard. Since that time chiropractic examinations have become separate while remaining at an equivalent standard with medicine.

13. Canada has a similar system of national and provincial board examination as a condition of entry to practice. In some countries in Europe, such as Denmark and Switzerland, a graduate chiropractor must not only pass board licensing examinations but must also practise as an associate with an established chiropractor for a year before obtaining full licence to practise.

Postgraduate Specialization

14. Postgraduate training is available in a variety of disciplines and specialties. This may be in full-time residency programs at chiropractic colleges (typically a minimum of 4,000 hours over two academic years - eg. radiology) or part-time in non-residency programs offered by colleges and professional bodies (typically a minimum of 300 hours over three years).

15. In the U.S. the two national chiropractic associations, the American Chiropractic Association and the International Chiropractors' Association, offer non-residency diplomate certi-

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fication programs in these areas:

- Applied Sciences
- Diagnosis
- Neurology
- Thermography
- Sports Injuries & Physical Fitness
- Pediatrics
- Radiology
- Nutrition
- Orthopedics

Specialty chiropractic councils offer further post-graduate training and certification in areas such as rehabilitation and occupational health.

16. All of the above postgraduate education takes place within the context of chiropractic education. In addition many chiropractors take further qualifications outside chiropractic in areas complementary to chiropractic practice - including, for example, acupuncture (which, like chiropractic joint adjustment or manipulation, produces reflex effects in the nervous system) shiatsu, and naturopathy.

C. Conclusion

17. From this brief review it will be apparent that chiropractic education is today of similar standard to medical education. Indeed many U.S. states classify doctors of chiropractic, like medical doctors, as 'physicians' and authorize use of the title 'chiropractic physician'. However chiropractic education is different in four major respects:

i) Basic philosophy of practice. Medhat Al Attar DC, MD, an Egyptian medical doctor who subsequently studied chiropractic in the U.S. compares this to language. The two disciplines of chiropractic and medicine, like two languages, can complement each other but

a person who has learned both thinks primarily in terms of one.

ii) Biological sciences. There is different emphasis and content reflecting the different scopes of practice.

iii) Competence in neuromusculoskeletal diagnosis, including palpation and radiology. This is not a part of general medical training.

iv) Manual treatment skills, including manipulation. Again, not a part of undergraduate medical training.

The undergraduate physical therapy/physiotherapy curriculum has the same differences, but in addition has no training in general or x-ray diagnosis since PTs rely upon doctors for these services.

18. These major differences in curriculum are why MDs and PTs desiring the management skills and scope of practice of the chiropractic profession are now in increasing numbers requalifying by going to chiropractic college - rather than taking weekend courses and/or simply giving themselves titles such as 'orthopractor'.

The pitfalls of part-time programs, which focus on a limited range of techniques rather than a sound basis in theory, are exposed in this complaint from Yamada and Montague in California, PT managers commenting on PT staff at Kaiser-Permanente, the largest HMO in the United States:

"By taking short courses in manual therapy, the PTs acquired basic information on orthopedic examination and treatment, but in a haphazard and unrefined way. Applying short course information to practice, therefore, proved not only difficult but frustrating.

The PTs found it difficult to select appropriate treatment measures and predict reasonable progress because they could not accurately interpret examination signs and symptoms."

References

1. Dvorak J (1983) 'Manual Medicine in the United States and Europe in the Year 1982', *Manual Medicine* 1:3-9.
2. Curtis P, Bove G, (1992), 'Family Physicians, Chiropractors and Back Pain', *J Family Practice*, 35(5):551-555.
3. Commission on Alternative Medicine, Social Departementete, 'Legitimization for Vissa Kiropraktor', Stockholm, SOU (English Summary) 1987, 12-16.
4. 'Chiropractic in New Zealand' (1979) Report of Commission of Inquiry, P D Hasselberg, Government Printer, Wellington, 130-31, 198.
5. Manga P, Angus D et al (1993) 'The Effectiveness and Cost-Effectiveness of Chiropractic Management of Low-Back Pain', Pran Manga and Associates, University of Ottawa, Canada.
6. 'Draft Management Guidelines For Back Pain' (1994) Clinical Standards Advisory Group, Department of Health, U.K.
7. 'Clinical Guidelines For the Management of Back Pain' (1994) AHCPR, Department of Health, Education, and Welfare, Washington, D.C., in print.
8. Cherkin D (1992) 'Family Physicians and Chiropractors: What's Best for the Patient?', *J Family Practice*, 35(5):505-506.
9. Patel-Christopher A (1990) 'Family Physicians and Chiropractors: A Need for Better Communication and Cooperation', U of Toronto, thesis, unpublished.
10. Cyriax J (1984) 'Textbook of Orthopedic Medicine', Vol 2, Balliere Tindall, London, 11th Edn, 48,4.
11. Lewit K (1986) 'Manipulation-Reflex Therapy and/or Restitution of Impaired Locomotor Function' *Manual Medicine* 2:99-100.
12. Kenna C and Murtagh J (1985) 'Spinal Manipulation for Doctors - A Correspondence Course, Unit 5', *Australian Fam Phys*, 14(5):453.
13. Grayson M F (1986) 'Manipulation in Back disorders' *Br Med J* 293:1481-82.
14. Katz M (1994) 'Absurd Claims by Chiropractors Clear New Path For 'Orthopractic'', *The Medical Post* (May 10), 8.
15. *The Medical Post* (July 5, 1994), 12.
16. 92/93 Calendar, Canadian Memorial Chiropractic College, Toronto.
17. Yamada J K and Montague E C (1984), 'Clinical Education Model for Staff Training In Orthopedic Manual Therapy', *Physical Therapy* 64(7):1084-87.

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