

Primary Contact Practitioner Training: A Comparison of Chiropractic and Naturopathic Curricula in Australia

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ABSTRACT: Levels of control over curricula for complementary and alternative medicine (CAM) vary in Australia. For example, accreditation with government registration boards is mandatory for chiropractic, whereas accreditation with state accrediting boards and professional associations is voluntary for naturopathy. The Australian public is increasingly seeking the services of CAM practitioners, often as their primary contact practitioner, and may be unaware of the diversity of training within CAM. *Objective:* The aim of this study was to compare two CAM curricula: chiropractic and naturopathy, in the context of primary contact practitioner training. *Design:* Accredited naturopathy and chiropractic programs in Australia were located. Key learning areas and approaches to clinical training were identified and compared. *Results:* Chiropractic and naturopathy, two examples of CAMs, have different levels of control over their curricula. The key learning areas (Medical Sciences, Profession-Specific Subjects, Research Methodology, Professional Studies and Clinical Training) identified in the study were similar in chiropractic and naturopathy curricula. Within the different chiropractic or naturopathic courses, the percentage of the courses allocated to the key learning areas were comparable; however, there were differences when comparison was made between chiropractic courses on one hand and naturopathy courses on the other. On average, chiropractic courses allocated 45.9% of their curricula to medical sciences, whereas university-based naturopathy courses allocated 26.2% to medical science and non-university naturopathy courses allocated 23%. *Conclusion:* Chiropractic registration guarantees a uniform level of training for all practitioners. This training was found to comply with accreditation board requirements. The naturopathy courses in the study had elected to comply with the requirements for state government and professional association accreditation, and a level of uniformity was evident amongst the various courses. It is pertinent to note that although both groups of practitioners are entitled to practise as primary contact practitioners, chiropractors and naturopaths had markedly different focuses on medical science training. We suggest a review of naturopathy curricula is warranted in the context of uniformity of training for primary contact practitioners.

INDEX TERMS: MeSH: COMPLEMENTARY THERAPIES; NATUROPATHY; CHIROPRACTIC; HIGHER EDUCATION; CURRICULUM; PRIMARY CONTACT.

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INTRODUCTION

Chiropractic, because of its unique registration and education status in Australia, stands apart from other complementary and alternative medicines (CAMs). It is a distinct profession with clearly recognisable principles of practice and philosophy.^{1,2} Since the introduction of national training standards in the Health Training Package in 2002, boundaries between other CAMs have been more clearly delineated.³ Chiropractic curricula are mandated by registration boards or their agencies, but no such requirements exist for naturopathy curricula.

Currently there are four standards of CAM training in Australia:

1. *Training conforming to state government registration requirements.* Of the many modalities of CAM taught and practised in Australia, only **three** have government registration:
 - a. chiropractic and osteopathy (since 1983 nationwide),
 - b. Traditional Chinese Medicine, and
 - c. acupuncture (the latter 2 only in Victoria since **2000**).
2. *Training conforming to the requirements of the Department of Education, Science and Training (DEST), previously the Australian National Training Authority (ANTA Authority).* ANTA Authority was established by the federal parliament in 1992 to advise state, territory and commonwealth minister on appropriate policies and mechanisms to move towards a more national and industry-led focus for vocational **education** and training. National standards for CAM were created in 2002 as part of the Health Training Package.
3. *Training conforming to professional association accreditation requirements.* Professional associations such as the Australian Traditional Medicine Society (ATMS) and the Australian Natural Therapists' Association (ANTA Association) independently set minimum education standards for CAM practitioners and courses.^{4,5}
4. *Training that does not conform to any external standards.* It is not mandatory for training programs or trainees in CAMs, apart from those that have compulsory government registration, to attain any accreditation.

To highlight differences in CAM curricula, **2** disciplines (chiropractic and naturopathy) were selected as representatives of the high end of the Australian Qualifications Framework.⁶ Naturopaths can complete a course that has either DEST accreditation or professional association accreditation. It is also possible to practise naturopathy without any accredited training. Chiropractic training, on the other hand, is mandated by government registration. The aim of this study was to compare **2** CAM curricula, chiropractic and naturopathy, in the context of primary contact practitioner training.

METHODS

Naturopathy Courses and Curricula

Accredited naturopathy courses were identified using the National Training Information Service⁷ and recognised course lists of **ATMS** and ANTA Association. Two national surveys,^{8,9} *The Good Universities Guide*¹⁰ and the Australian Naturopathic Network¹¹ were **reviewed** to ensure that all accredited training colleges and universities were included in the study. Course structures and subject/unit descriptions for accredited naturopathic courses were examined *via* websites where they existed. In addition, Course Co-ordinators, Directors of Study or other appropriate academics/persons from each naturopathic training institution were invited to take part in a short interview (telephone or email) to clarify subject content and course structure and give details of clinical training.

Chiropractic Courses and Curricula

*The Good Universities Guide*¹⁰ was used to identify all chiropractic programs in Australia. Course structures and subject descriptions for 2006 were accessed using universities' websites: <http://handbook.mq.edu.au>,¹² <http://handbook.murdoch.edu.au>,¹³ and <http://www.rmit.edu.au>.¹⁴ In addition, individual units were examined through these portals.

Comparison of Curricula

Subjects taught in each course were listed, and subject descriptions, rather than titles, were used to assign each subject to learning areas. Five key learning areas were identified: i) Medical Sciences (including foundation units such as chemistry, biology, anatomy and physiology, biochemistry, pathology, symptomatology and diagnosis, and pharmacology; ii) Profession-Specific Subjects (including, for naturopathy, history and philosophy, Western herbal medicine, nutrition, homoeopathy, massage therapy, counselling, and traditional diagnosis; and, for chiropractic, chiropractic philosophy, chiropractic techniques, and radiology); iii) Research Methodology; iv) Professional Studies (including communication skills, legal and ethical requirements for practice, and business management); and v) Clinical Training.

Where they existed, credit points allocated to subjects were used for comparisons. This was possible for all chiropractic courses and those naturopathy courses taught at universities. Hours of class time were used to enable comparison among the remaining naturopathy courses in the study.

This study was approved by Macquarie University's Ethics Review Committee (Human Research) (Reference Number: HE23APR2004-MO895).

RESULTS

Naturopathy

Accredited Naturopathy Courses in Australia

The study found 30 naturopathy courses that conformed to the requirements of either DEST or professional associations. For the purpose of the study, postgraduate courses and courses converting Advanced Diplomas into Health Science degrees were omitted, leaving a total of 21 training institutions for the study. Detailed curricula were available for 17 programs; interviews, either by telephone or email, were conducted with representatives of 12 training institutions (including 4 colleges for which curricula details were not available). Follow-up phone calls and/or emails to 7 training institutions elicited no response. The remaining two colleges could not be contacted by searching the internet or the yellow pages directory www.yellowpages.com.au.

Primary Contact Role as a Learning Outcome in Naturopathy Courses

A major aim of all reviewed courses was to produce independent naturopathic practitioners who could enter private practice. There was no reference in any course document to treating clients under supervision or by referral.

Learning Areas in Naturopathy

Despite the large number of naturopathy courses in Australia, the 17 curricula available for this study were similar in structure. Differences were mainly in proportion of the curriculum allocated to subject areas. Since the introduction of the Health Training Package in Australia in 2002, all state government-accredited courses in naturopathy have been required to align to the Health Training Package; however, alignment with the Health Training Package is not required for non-government-accredited courses. Western herbal medicine and nutrition were included in all naturopathy programs. Comparisons of the naturopathy courses delivered at four universities with non-university courses (private colleges and TAFEs) showed that the university courses had a greater percentage of their curricula allocated to Medical Sciences than non-university courses (26.2% compared with 23%), but a smaller percentage allocated to Profession-Specific Subjects (48.3% compared with 52.2%) and to Professional Studies (4.4% compared with 8%). All naturopathy curricula emphasised Western herbal medicine and nutrition and had allocated similar percentages of the curricula to clinical training (13.7% for university-based courses, 13.1% for non-university-based courses). Table 1 shows the percentage of the naturopathy courses allocated to each key learning area.

Clinical Training for Naturopaths

The Training Package, with its focus on skills outcomes, does not specify minimum hours for clinical training, but rather the achievement of competencies in clinical skills. The *minimum* number of required clinical training hours set by one of the professional associations is 400. Of these, 300 hours of training must be carried out in a student clinic under supervision of a qualified therapist, with the remaining 100 hours as clinical placement or fieldwork. The 300 hours of supervised clinic hours are typically distributed across training clinics in massage therapy, homoeopathy, herbal medicine and naturopathy, reflecting the composite nature of the qualification. The interviewed clinical supervisors often commented on the difficulty of providing adequate numbers of clients and diversity of ages and clinical conditions for students in their clinical training. Naturopathic clinic hours are usually accrued by the *number of hours spent in student clinic*, and not by the number of hours the student operates as the primary contact practitioner in a consultation. Rarely have hospital-based placements been available to naturopathic students in Australia. One university-based naturopathy course currently offers 24 hours of external clinical placement in palliative care, rehabilitation and nursing homes.

Chiropractic

Chiropractic Programs in Australia

There are 3 avenues for chiropractic training in Australia: Macquarie University, Sydney; RMIT University, Melbourne; and Murdoch University, Perth.

Primary Contact Role as a Learning Outcome in Chiropractic Courses

As long ago as 1981, the chiropractic profession in Australia **documented its recognition of** the primary contact role of chiropractors and the implications of this for education.¹⁵ The primary contact role of chiropractors was also recognised by Coulter² and by the competency standards developed by the Council on Chiropractic Education in Australia.¹⁶

Learning Areas in Chiropractic

The key learning areas were comparable to those for naturopathy: Medical Sciences, Profession-Specific Subjects, Research Methodology, Professional Studies and Clinical Training. In this study, diagnostic procedures specific to chiropractic, such as motion palpation and radiology, have been allocated to Profession-Specific Subjects. Table 2 shows the percentage of the courses allocated to each key learning area using credit points.

Clinical Training for Chiropractic

Chiropractic students are required to complete a minimum of 250 client consultations as a part of the clinical internship.

Comparison of Key Learning Areas of Naturopathic and Chiropractic Curricula

Despite differences in the length of training, the key learning areas were similar in chiropractic and naturopathic courses; however, comparisons of the naturopathy and chiropractic curricula showed marked differences in the percentage of the courses allocated to Medical Sciences and to Profession-Specific Subjects. In chiropractic, 45.9% of the course was allocated to Medical Sciences and 41.7% to Profession-Specific Subjects, whereas in university-based naturopathy courses 26.2% was allocated to Medical Sciences and 48.3% to Profession-Specific Subjects. In non-university naturopathy courses, even greater differences existed, **23%** being allocated to Medical Sciences and 52.2% to Profession-Specific Subjects.

In naturopathy, clinical practice hours are recorded by physical presence in the clinic, which may not equate to the number of patients treated. In discussions with naturopathic course co-ordinators, this emerged as a common area of concern. Graduates of the chiropractic programs have a guaranteed minimum of 250 patient consultations in which to develop their primary contact practitioners' skills under supervision.

DISCUSSION

Levels of Accreditation for CAM Courses

Where Registration Boards exist for CAMs, they specify the particular training courses that fit their criteria for registration¹⁷⁻¹⁹ and the **three** chiropractic courses in Australia are required to comply with these criteria. Although naturopathy courses in Australia are not required to comply with any accreditation, all the naturopathy courses in the study had sought accreditation, either with state government agencies or with professional associations. Consequently there was uniformity within the naturopathic curricula in the study.

Primary Contact Practitioners

Given that most CAM practitioners establish independent private practices,⁸ there is an implied requirement of knowledge and skill to fill the role of the primary practitioner, *i.e.*, one who uses a scientific knowledge base and has the authority to direct personal health services to patients.²⁰ At the very least, this entails an appropriate level of underpinning knowledge to enable the clinician to recognise red **flag** (biomedical) and yellow flag (psychosocial) conditions in order to identify those patients requiring referral to a medical or other health professional.²¹ A minimum of **five** years of training is required for chiropractic in recognition of the primary contact role of practitioners. This role is also acknowledged in the General Chiropractic Council's Standard of Proficiency guidelines in the United Kingdom,²² by the Council on Chiropractic Education in the United States,²³ and by the World Health Organization.²⁴ It is noteworthy that there is a marked difference between the percentages of the CAM courses in the study allocated to Medical Sciences. The public is increasingly using CAM but appears to be unconcerned by differences in the training levels of practitioners.²⁵⁻²⁸ Consequently there has been little pressure from the public to review the training standards. Despite increasing use of Western medical assessments in CAM training and practice, the training of naturopaths in these procedures does not appear to have addressed all the requirements facing them as primary contact practitioners.²⁹ A review of the National Health Training Package is currently in progress; however, the review process has so far failed to address issues relating to primary contact training. Statutory regulation of all CAM practitioners has recently been advocated for its contribution to guaranteeing

uniform training standards.³⁰ An appropriate focus of any progress towards uniformity in training needs to emphasise the training of practitioners for their primary contact role.

Comparison of Naturopathic and Chiropractic Curricula

Credit points and class hours were used to make comparisons in this study. It must be acknowledged, however, that conclusions drawn from comparisons of curricula are limited by several factors, including self-instruction components of programs, quality of delivery, and academic rigour of content—all beyond the scope of this study.

The key learning areas identified in this study are consistent with those of similar courses in Canada and the U.K.^{31,32} In Boon's study of naturopathic training, 43.4% of the courses were allocated to Medical Sciences, 47.2% to Profession-Specific Skills, 3.8% to Professional Studies and 5.7% to Clinical Training. No subjects were specifically devoted to Research Methods. In the U.S., however, naturopathic training is much more closely aligned to conventional medical training than in Australia.³³⁻³⁵

Training in Clinical Reasoning Skills

Some of the curricula in the study assigned a subject or cluster of subjects to the development of clinical skills; however, it was unclear whether systematic curricular approaches to clinical reasoning were being used. A future study in this area could draw on the insights already provided by research in other health professions.^{36,37}

CONCLUSION

The requirement for chiropractors to register, with the mandatory compliance of chiropractic curricula to accrediting body guidelines, guarantees a uniform minimum training for all chiropractors in Australia. Despite the lack of compulsory control over naturopathic courses, there was uniformity of curricula within naturopathic training. Although both groups are entitled to practise as primary contact practitioners, there was a marked difference between the training for chiropractors and naturopaths. Even in 1996, it was suggested that a review of training was warranted.³⁸ We suggest that naturopathy curricula be reviewed to more adequately prepare practitioners for their primary contact role and to guarantee the more uniform levels of training that the community expects of any primary contact practitioner.

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Table 1

COMPARISON OF 17 NATUROPATHY COURSES		
Key Learning Areas	Non-University Courses Average	University Courses % of Total
Medical Sciences		
Physics/Chemistry/Biology	2.9	3.3
Anatomy/Physiology/Biochemistry	11.0	8.5
Pathology & Microbiology	4.1	7.0
Symptomatology & Diagnosis	5.0	7.4
Total	23.0	26.2
Profession-Specific Subjects		
History & Philosophy	2.9	2.2
Nutrition/Public Health	10.3	12.2
Pharmacology	1.6	1.7
Western Herbal Medicine	15.5	13.1
Homoeopathy	6.4	2.9
Massage Therapy	6.0	4.4
Counselling	2.6	4.4
Traditional Diagnostics (including iridology)	4.0	1.3
Other (Ayurvedic medicine, permaculture, vibrational medicine, electives)	2.9	6.1
Total	52.2	48.3
Research Methodology	3.6	3.9
Professional Studies	8.0	4.4
Clinic	13.1	13.7

Figures correct as of August 2006

Table 2

COMPARISON OF 3 CHIROPRACTIC COURSE CURRICULA USING CREDIT POINTS				
Key Learning Areas	Course 1 % of Total	Course 2 % of Total	Course 3 % of Total	Average % of Total
Medical Sciences				
Physics/Chemistry/Biology	5.0	11.0	7.5	7.8
Anatomy/Physiology/Biochemistry	21.0	21.0	12.5	18.2
Pathology/Microbiology	7.0	6.0	5.5	6.2
Orthopaedics/Neurology	15.0	12.0	14.0	13.7
Symptomatology & Diagnosis				
Total				45.9
Profession-Specific Subjects				
History & Philosophy/Chiropractic Technique/Rehabilitation	26.0	32.0	32.0	30.0
Nutrition	3.0	1.0	2.0	2.0
Pharmacology	5.0	1.0	2.0	2.7
Diagnostic Imaging	5.0	8.0	8.0	7.0
Total				41.7
Research Methodology	4.0	4.0	8.0	5.3
Professional Studies	1.7	3.0	1.6	2.1
Clinic	10.0	9.7	10.0	9.9

Figures correct as of August 2006

COMPARISON OF CURRICULA

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