AN INTERNATIONAL STUDY OF OSTEOPATHIC PRACTICE.

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TABLE OF CONTENTS

CHAPTER 3
Methodology

CHAPTER 4
Results

CHAPTER 5
Discussion

APPENDICES

LIST OF TABLES

LIST OF FIGURES

ABSTRACT

There is marked variation in educational background and practice among osteopaths around the world. The profession lacks unity, and frequently osteopaths of one geographical region, educational background, or practice style, do not acknowledge as colleagues, osteopaths of another location, training, or field of practice. I completed an international study of osteopathic practice, surveyed practitioners in five geographical regions, and compared their pre-professional training with their actual practice. Information was also collected from colleges of osteopathic medicine regarding pre-professional training offered for osteopathic students. This information has been assembled into a Worldwide Sourcebook of Osteopathy (Cameron, 1999) that is expected to be of significant interest to prospective, and current, osteopathic students and practitioners alike.

Current and recent global trends in osteopathic education include moves towards the highest awardable degree or diploma for any programme, and continued favour of the abbreviation "D.O." Regional educational trends were also noted, particularly the increased emphasis on osteopathic manipulative medicine in osteopathic colleges in the USA. The recent moves towards collegiality in the United Kingdom contrast sharply with the intercollegial disputes of Europe. Rapid expansion of osteopathic education in Australasia, and the push towards greater government recognition in both Europe and Canada were also noteworthy.

In most aspects of osteopathic education investigated, osteopaths reported a close fit between educational provision and subsequent workplace use of a given skill. The major disparities between what people were taught in their osteopathic education and what they actually used in practice were in the areas of: (a) making and receiving of referrals, (b) medical testing procedures (ie: laboratory tests, physical examination, radiology), (c) some aspects of osteopathic manual medicine, (d) research skills, and (e) teaching.

Education is a powerful tool for shaping subsequent professional practice. Educational institutions also have a responsibility to provide vocational training that meets the demands of the profession at large. Results are discussed in terms of the future challenges for the osteopathic profession, both in education and in the workplace.

CHAPTER 1

Introduction

1.1 Introduction

There are approximately 40,000 health care professionals around the world using the title "osteopath," but this group is hardly unified. To quote Sir Norman Lindop (as cited in Fielding & Sharp, 1995), osteopathy is "a profession of individuals, and none of them agree with each other" (p. 3).

The practice of osteopathy, or osteopathic medicine (the preferred usage throughout the USA), varies dramatically around the globe. Governments, the general public, and health care practitioners hold a wide variety of views as to what constitutes osteopathy, its breadth, depth and scope, and what makes a practitioner an osteopath (General Council and Register of Osteopaths [GCRO], 1994; Gevitz, 1982, 1994; Szmelskyj, 1990; Turner, 1996).

Osteopathic practice is driven by many factors including social history, government legislation, professional education, interaction with other professions, and the individual practitioner's patient population (GCRO, 1996; Meyer, 1995; Ross-Lee & Weiser, 1994a, 1994b). For example, the Cuban communist revolution radically altered the delivery of medical services in Cuba, osteopathy included (MacDonald, 1995b). Castro came to power in 1959 with a promise to provide "medical care free at point of access to any citizen" (MacDonald, 1995a, p. 3) and saw Cuban osteopaths as part of the solution to the equitable provision of health care (MacDonald, 1995b). Currently, osteopaths are locally educated and provide osteopathic manual therapy in both rural and urban regions of the island. Clearly, social, and consequently, legislative change led to a shift in osteopaths' professional education, patient population, and therefore, type of practice.

The extent and kind of osteopathic practices around the world is yet to be fully documented. The osteopathic training available in each region gives some insight as to what is expected practice. Osteopathy has taken many forms through the century of its history (Caprossi, 1996; Gevitz, 1982; Hawkins & O'Neill, 1990), and both osteopathic practice and education continue to develop and change.

This study involved reviewing the historical development of osteopathy in each region, followed by identifying and cataloguing the educational training of osteopaths around the globe. This information formed the basis of a worldwide sourcebook of osteopathy. I then surveyed practicing osteopaths and compared their training with actual behaviours in practice. For ease of description, I chose to review the literature outlining osteopathic practice and education, from historic and current perspectives, according to geographical regions (see Figure 1.1).

Figure 1.1: Global Classification of Osteopaths According to Academic Awards.

CHAPTER 2

Review of Literature

2.1 United States of America

2.1.1 History of osteopathic education and practice.

Modern osteopathic practice has its origins in the writings, practice, and teachings of Dr. Andrew Taylor Still, an American medical practitioner trained in the Midwest during the 1850s, according to the apprenticeship system of the day (Gevitz, 1995). Still learned most of his medical skills as an observer at the side of older, more experienced physicians.

Despite his medical training, Still was unable to prevent the death of three of his children in the meningitis epidemic of 1864 (Northup, 1987). He became disenchanted with the medical practice of the time, claiming that many of the substances prescribed (e.g., mercury, alcohol), and surgical procedures regularly used (e.g., bloodletting, leeching), were either harmful or simply ineffective (Gevitz, 1995; Webb, 1977). He began searching for safe and effective medical care for use on the Midwestern frontier (Northup, 1987).

In his search for a "better" medicine, Still experimented with numerous alternative therapies, including: (a) homeopathy, developed by German physician Samuel Hahnemann (1755-1843), in which patients are treated with extremely dilute solutions of medication; (b) eclecticism, founded by New York physician Wooster Beach (1794-1868), which advocated the use of indigenous plants to effect specific cures of certain signs and symptoms (Gevitz, 1982; Hensyl, 1990); (c) bone setting, the predecessor of modern orthopaedics and manipulative medicine (Gevitz, 1982; Webb, 1977); and (d) magnetic healing, as popularised by Mesmer (Gevitz, 1995).

Still's main interest, however, was in the role of the musculoskeletal system in disease. He studied the human skeleton in detail, dissecting bodies he exhumed from Indian graves (Northup, 1987). By 1874, Still believed he had learned enough about the human frame to present his concept of the inter-relationship of structure and function to the medical fraternity. Still argued that a patient could not become sick in one part of his body without having other areas effected (Still, 1908/1981). He asked permission to make a presentation to this effect at Baker University in Baldwin, Kansas, but was refused. His suggestion that the patient should be treated as a unit was considered ludicrous, greatly offended the allopathic medical profession, and led to Still being viewed as a heretic, and read out of the Methodist church (Gevitz, 1982; Northup, 1987).

Still was not alone in ostracism from the conservative medical profession of the late 1800s (Hawkins & O'Neill, 1989). Louis Pasteur (1822-1895) established the germ theory of disease, against significant resistance, in 1864, but tuberculosis, arguably the most clinically troublesome disease of the time, was not identified as being caused by *Mycobacterium tuberculosis* until 1882. Baron Joseph Lister (1827-1912) was considered a pedant, and a fool, as he struggled to introduce antiseptic surgery in Britain during the 1860s (Taylor, 1988; Northup, 1987).

Throughout the 1880s, Still advertised himself as the "lightning bonesetter" and worked around the Kirksville, Missouri region (Gevitz, 1982). Bonesetting is the vigorous relocation of dislocated joints and the setting of fractured bones to allow proper healing. It appears that Still worked as an itinerant practitioner of manipulation, practicing his own variation of bone setting and manual therapy.

In 1889, Still coined the name "osteopathy" to describe his own style of health care.

> Osteopathy is compounded of two words, osteon, meaning bone, pathos, pathine, to suffer. I reasoned that the bone, "osteon," was the starting point from which I was

> to ascertain the cause of pathological conditions, and so I combined the "Osteo" with the "pathy" and had as a result Osteopathy. (Still, 1908/1981, p. 184)

Still made outlandish claims of success with osteopathic manipulation, and thus drew osteopathy into disrepute amongst allopathic physicians. Still recorded that he used manipulation to set dislocated hips, hasten the painless delivery of infants, and cure asthma (Still, 1908/1981). Regardless of the skepticism of the medical profession, patients flocked to Kirksville to be treated by Still, the "old doctor."

In explaining his therapeutic successes, Still synthesized some of the holistic tenets of magnetic healing and bone setting into one unified doctrine (Gevitz, 1982). Osteopathy was a manual therapy that Still claimed restored adequate nutrition, particularly blood supply, to injured tissues (Still, 1908/1981). Rudolf Virchow's (1821-1902) theory of cellular pathology; that disease resulted when cells were injured, irritated, or inflamed, was published in Europe in 1858 (Northup, 1987; Taylor, 1998). Still was unlikely to have read Virchow's work, yet expounded remarkably similar theories (Northup, 1987).

Still was, to some extent, a man ahead of his time. The allopathic medical profession saw him as a quack. William G. Anderson, president of the American Osteopathic Association (AOA) 1994-1995, described Still's relationship with the medical profession thus: "People said Dr Still was radical. They said he was revolutionary. They said he was unconventional. But [sic] his idea that the body has an innate ability to cure itself has withstood the test of time." (as cited in Bouley, 1994, p. 43).

Formal osteopathic education also began with Still in 1892, when he established the American School of Osteopathy (ASO) at Kirksville, Missouri (Gevitz, 1982; Northup, 1987). The particular emphasis of osteopathy on the mechanical structure of the body meant that studies in anatomy, including human cadaver dissection, and manual therapy technique, including musculoskeletal assessment and manipulation, formed the mainstay of

the initial four-month programme. This short course of study was inadequate time to cover the details of anatomy Still demanded, and the programme was expanded to two years (Still 1908/1981). Still's emphasis on anatomy is illustrated in the following quotation from his textbook, The philosophy and mechanical principles of osteopathy.

> This work is written for the student of osteopathy....He must remember that the American School of Osteopathy does not teach him to cure by drugs, but to adjust deranged systems from a false condition to the truley [sic] normal, that blood may reach the affected parts and relieve by the powers that belong to pure blood. The osteopath must remember that his first lesson is anatomy, his last lesson is anatomy, and all his lessons are anatomy (Still, 1892, pp. 11-12).

Still was resistant to the inclusion of physiology in the ASO curriculum, but was swayed by considerable pressure from an early graduate. John Martin Littlejohn held a PhD in physiology from the University of Glasgow, and eventually convinced Still that the ASO curriculum was sadly lacking due to the omission of studies in physiology. Following his graduation from the ASO, Littlejohn remained in Kirksville to teach physiology (Gevitz, 1982).

Graduates from the ASO practiced manual manipulative therapy. They were awarded the degree D.O. (Doctor of Osteopathy) and encouraged to view themselves as doctors. This use of title met with resistance from the allopathic medical profession. Several ASO graduates, including the founder's son, Charles Still, were charged, by allopathic doctors, with "practicing without a license" but the charges were either dropped or overturned when it became clear that patients had benefited from treatment (Gevitz, 1982, p. 40).

Controversy seemed to follow Still. He held strong views about the equality of all people, and from its foundation, declared the ASO open to both male and female students

of all races, specifically African Americans. The first graduating class from the ASO (1892) included five women, several years before women were permitted to enter allopathic medical education (Hawkins & O'Neill, 1989; Northup, 1987). Still had fallen out of favour with Kansas state authorities because of his anti-racist views. He chose, therefore, to establish the ASO at Kirksville in Missouri, rather than at Shawnee in Kansas, where racism was overt (Northup, 1987).

In the decade following the foundation of the ASO, several graduates moved into osteopathic education. By 1910, the ASO at Kirksville was the parent institution to seven other osteopathic colleges in Chicago, Kansas City, Philadelphia, Des Moines, Boston, and two in Los Angeles (Gevitz, 1995). The ASO was a somewhat critical parent. Still maintained that most of his fledgling graduates had neither the experience nor the training to teach osteopathy to the standard he considered adequate. Relationships between Still and other college principals were civil, but strained (Gevitz, 1982).

Independent osteopathic colleges, which did not meet at all with the approval of Still and the ASO faculty, also sprang up across the USA (Gevitz, 1982). The most notable of these was probably the Benarr McFadden School of Osteopathy, which also attracted students from England and New Zealand (BCNO, 1996b; Skinner, 1989).

In addition, in 1910, the Carnegie Foundation for the Advancement of Teaching commissioned Abraham Flexner to conduct an inquiry into medical education in the USA and Canada. Several independent osteopathic colleges, as well as numerous allopathic medical schools, were forced to close due to the scathing criticisms made of them in Flexner's report. The main eight osteopathic colleges managed to remain open, but could not disregard Flexner's comments that: (a) entrance standards were too low, with some colleges admitting students without high school diplomas; (b) scientific teaching, particularly anatomy and chemistry, lacked the necessary laboratory support; and (c)

students lacked opportunity to practice manual therapy skills on patients because teaching hospitals and clinics were either small or nonexistent (Gevitz, 1982, 1995; McKone, 1996).

Gevitz (1995) presented an overview of the history of osteopathy in the USA generation by generation, explaining that in the two decades following Flexner's report, the osteopathic profession faced challenges regarding their scope of practice. During this time osteopathy moved slowly, but steadily, towards expanded practice rights. By 1929, osteopathic colleges had come to include in their curricula and training, materia medica (i.e., pharmaceuticals, both herbal and synthetic), surgery, and obstetrics. Simultaneously, osteopaths across the United States lobbied for the same practice rights as medical doctors.

Between 1930 and 1960, the osteopaths focused attention on improving the standard of osteopathic education so that osteopaths would be seen to be "as good" as allopathic medical doctors. "Once lagging far behind M.D. candidates in passing both basic science board and medical licensure tests, D.O.s dramatically reduced the gap by 1960" (Gevitz, 1995, p. 32). By 1973, all states in the USA granted unlimited medical licensure to college of osteopathic medicine (COM) graduates, thus acknowledging that osteopathic education is as valuable and professional as allopathic medical training.

Concurrent with broadened practice rights, and the acceptance of osteopathic education as mainstream, was a massive reduction in the percentage of American D.O.s practicing manual manipulative therapy. Gradually, pharmaceutical prescription and surgery became the two most common practices in American osteopathy, in keeping with the division of allopathic medical practice into "medicine" and "surgery".

In 1969, five private COMs existed in the USA (Gevitz, 1995). Rapid expansion followed, and by 1995, sixteen COMs existed in fourteen states (Allen, 1995; Hruby, 1995;

Singer, 1995). Three additional colleges have opened since 1995, making nineteen accredited COMs in the USA (American Osteopathic Association [AOA], 1998).

2.1.2 Current osteopathic education.

Modern osteopathic education in the USA mirrors, in nearly every respect, American medical education. There are two types of medical degrees (Doctor of Medicine and Doctor of Osteopathy), two hospital systems (allopathic and osteopathic), two systems of postgraduate training (allopathic and osteopathic), two National Boards for specialty certification (the National Medical Board and the National Osteopathic Board), and two professional associations for doctors (the American Medical Association and the American Osteopathic Association).

Doctoral osteopathic training, four years full time postbaccalaureate, leading to the degree D.O. (Doctor of Osteopathy) is the form of osteopathic education currently undertaken in the USA (Singer, 1995). A Bachelor degree is the minimum requirement for entrance to COMs, but a background in either science or humanities is acceptable. Students are required to sit a Medical College Admission Test (MCAT), which assesses verbal and mathematical skills as well as knowledge of the physical and biological sciences (Singer, 1995).

All D.O. graduates are required to complete an intern year in hospital training before moving into their chosen specialty, subspecialty, or generalist area of practice. Following internship, graduates wishing to specialise are required to enter a residency training programme. Residency may last between three and six years, at the end of which graduates are eligible to sit for National Osteopathic Board (NOB) examinations in order to gain certification in their chosen specialty. Many hospitals employ both D.O. and M.D. graduates, regardless of the preferred affiliation of the hospital management.

Board certification is not required for D.O.s in family medicine, or other non-specialist areas. Despite this, many family practitioners obtain NOB certification. George Nyhart (as cited in Bade, 1994), of the American College of Osteopathic Family Physicians, stated that "It does not matter whether you are a D.O. or an M.D.... Board certification is a way of life now" (p. 50). This trend, therefore, has raised the average age of practitioners entering family practice, and led to osteopathic family physicians being more highly qualified than ever before, but spending fewer years in family practice.

2.1.3 Current osteopathic practice.

D.O.s practice in all specialty and subspecialty areas of medicine (Allen, 1995). The breadth of practice for American D.O.s has led to much debate as to what distinguishes an osteopath from an allopath. Osteopathic manipulative medicine (OMM) is a specialty field, and board certification in OMM is available for generalist practitioners (Habernicht, 1997). In 1995, less than 1% (n = 327) of American D.O.s practiced primarily OMM (Allen, 1995), yet Gevitz (1994), a longstanding observer of the American osteopathic profession, believed that treatment of the spine and musculoskeletal system distinguished osteopathic physicians from other medical practitioners.

The American Academy of Osteopathy (AAO) is a professional association for osteopaths with a particular interest in OMM. AAO literature described AAO members as the "keepers of the flame," and encouraged osteopaths to use OMM in a wide variety of practice settings (AAO, 1993). The American Osteopathic Association also indicated a future goal to promote the use of OMM (Ward, 1996) to distinguish D.O.s from allopaths. The inclusion of OMM in the osteopaths' armamentarium is an oft cited, but hardly significant distinction when less than 1% of the osteopathic profession in the USA use OMM as their primary therapeutic tool in practice.

Northup (1987) on the other hand, argued that OMM was one of many valid methods for the treatment of the patient as a whole.

> Fortunately, and sometimes unfortunately, manipulative therapy has been the hallmark of osteopathic medicine. It has been fortunate in the fact that manipulative therapy is a powerful and valuable method of treatment.... It has been unfortunate because large segments of the public have not understood that the therapy was but one means of expressing the unifying principles as formulated by Andrew Taylor Still (p. 22).

Gevitz (1995) claimed that American osteopaths face challenges of identity and distinction because "the distinctive philosophical and practical aspects of osteopathic medicine are no longer at the core of undergraduate or graduate curricula" (p. 37). Gevitz cited the closure of osteopathic hospitals and graduate training programmes as responsible for a loss of identity amongst D.O.s, and questioned whether American osteopaths have a clear understanding of their role in medical service provision.

Another approach to closures may also be considered--that the reverse of Gevitz's contention may be true. American osteopaths have struggled to articulate clearly their place in the medical system as distinct from M.D.s (Meyer, 1995). Unable to identify significant distinction between allopathic and osteopathic health care systems, the USA Government has reduced funding to osteopathic hospitals and graduate training programmes, resulting in closures. In striving to be equal to M.D.s, American osteopaths may have "thrown out the baby with the bathwater," forfeiting uniqueness for expanded practice rights (McKone, 1996).

All D.O. graduates wishing to practice must complete an internship. This may be undertaken at either an osteopathic or an allopathic hospital. According to the AOA Division of Postdoctoral Training (1994), in the 1987/88 academic year 86% of graduating

D.O.s took internship placements in osteopathic hospitals, filling 91% of the available positions. This figure has fallen progressively since, such that in the 1994/95 academic year, 74% of D.O.s took osteopathic internships, filling 78% of available places. The increasing number of D.O.s entering graduate training programmes at allopathic hospitals has further blurred the distinction between an osteopath and a medical doctor (Hruby, 1995).

2.1.4 Osteopaths as primary care physicians.

Ross-Lee and Weiser (1994a, 1994b) suggested that osteopathy's most significant contribution to medicine was that a large proportion of osteopaths worked in primary care settings. As Bray (1996) questioned, "What is primary care and who provides it? This has become a very controversial... topic because of the recent moves towards emphasizing primary care as the entry point and major provider of health care services" (p. 90). O'Neil (1995) defined the primary care practitioner as one "who offers life long continuity of care that is comprehensive in its nature and humanistic in its orientation" (p. 15). The American Academy of Family Physicians (as cited in Bray, 1996) defined primary care as "a form of medical care delivery that emphasises first-contact and assumes ongoing responsibility for the patient" (p. 90). These two definitions are not always in agreement. Bray (1996) further defined the primary care practitioner as the one who monitored or treated routine health problems such as high blood pressure, diabetes, or infections.

Undoubtedly, primary care includes the fields of family practice, general internal medicine, and emergency care (Bray, 1996; Meyer, 1995; Ward, 1996). The osteopaths have debated whether osteopathic manipulative medicine (OMM), obstetrics and gyneacology, and general paediatrics should be considered primary care (Hruby, 1995; Meyer, 1995; Ward, 1996). Two questions need be asked of practitioners in each specialty: Can you care for the needs of patients across the life span? Do you consult with patients

without a colleague's referral? Practitioners of OMM may care for patients of all ages, but often work on a referral only basis. Paediatricians may see patients without referral, but do not provide "lifelong continuity of care" (O'Neil, 1995, p. 15).

Most recent data from the AOA (Allen, 1995) indicates that 50% (n = 16,095) of D.O.s, excluding interns and residents, work in primary care. Most of these (n = 14,230) work in family practice and very few (n = 25) in general practice. These statistics may be the result of the recent American trend to use the descriptors "family practice" or "family medicine" instead of "general practice" (the preferred title in Australia.) In some osteopathic literature the two terms appear to be used interchangeably.

The Metro Health Center Physicians Directory (1992) of Philadelphia records that most students enter osteopathic education because they want to become "general family practice" physicians, and that 75% enter "general practice" (primary care) after graduation and internship. Metro Health Center is accredited by the AOA, but is affiliated with the Philadelphia COM. These statistics may be representative of students at the Philadelphia college--there is some discrepancy between these data and those provided by the AOA.

The introduction of "managed care" to the United States' healthcare system has brought increasing interaction between D.O.s and third party payers, and has complicated the way osteopaths provide primary care. "Managed care refers to a variety of systems and programs administered by organisations or corporations designed to facilitate healthcare delivery to large patient populations, while optimizing cost efficiency" (Natkow & Fry, 1994, p. 583). This huge modification of the United States healthcare system led increasingly to D.O.s finding that they needed to join with Health Management Organisations (HMOs) in order to maintain contact with their usual patient population (Natkow & Fry, 1994; Ross-Lee & Weiser, 1994a).

Ross-Lee and Weiser (1994b) cite Laurence Bouchard, 1993/1994 president of the AOA, that "Osteopathic physicians have historically accepted a major role in caring for our [USA] vulnerable populations, and are responsible for 25% of the Medicaid population though they make up fewer than 5% of physicians" (p. 233). The contention that osteopaths are distinct from medical doctors in the USA because they have a greater percentage of their profession working in primary care is hardly a reasonable argument when the total number of osteopaths (n = 38,000) is overshadowed by 600,000 M.D.s. D.O.s in primary care are outnumbered by M.D.s in the same field by approximately 6 to 1. American osteopaths also suggested that their service to the poor, rural, and underserved populations set them apart, but again, absolute numbers of M.D.s in these roles markedly outnumber D.O.s.

An alternative explanation of the massive overrepresentation of osteopaths in the care of the poor, which is predominantly primary care, is a bias of employment restricting D.O.s from lucrative specialty positions. Gevitz (1982) explained that an employment bias existed for most of the century of osteopathy's history. Prior to 1941 many hospitals refused admitting privileges to D.O.s. During World War II osteopaths were not permitted to enter the USA military medical corps. Several D.O.s turned this situation to their advantage. Sending M.D.s away to war left a shortage of physicians on USA soil. This allowed osteopaths contact with a larger patient base, and necessitated that D.O.s be granted admitting privileges at all USA hospitals.

Texts on the history of osteopathic medicine in the USA imply that discriminatory employment ceased in 1973 when full medical licensure was granted to D.O.s in Mississippi, the final state to do so (Allen, 1995; Gevitz, 1982). Licensure, however, does not equal employment. Considering the present disparity between the percentage of M.D.s and D.O.s servicing Medicaid patients, it is unlikely that there is equity of employment

opportunity two and a half decades after full licensure was granted in all states. D.O.s may continue to be viewed as second rate physicians, and have difficulty obtaining highly paid positions. Even if current employment opportunities are equitable, there has not been any affirmative action plan to redress the bias of the past, leaving D.O.s overrepresented in care of the poor.

Ross-Lee and Weiser's (1994a, 1994b) view of the significance of osteopaths in primary care, particularly in rural, and underserved regions, was not shared by all D.O.s. Meyer (1995) reported that several COMs are in rural, underserved regions and up to 20% of D.O.s reside in these areas, but he clearly supported Gevitz's view when he stated that "without philosophic underpinnings and practice differences, there is no convincing reason that there should remain two sets of schools, two sets of boards, two sets of standards, and two types of degrees" (p. 329).

Osteopathic clinics and hospitals public relations staff have developed ways of explaining what makes D.O.s unique. It is important that osteopathic facilities justify to the American public their continued existence alongside bigger, better funded allopathic facilities. The validity of these claims, however, is yet to be tested. Metro Health Centre Physicians Directory (1992) described the "D.O difference" thus:

> One of the things that sets the D.O. apart is the real effort he or she will make to get to know each member of your family. D.O.s believe in getting to know each family member and their medical history before treatment is prescribed. They treat the whole person and suggest preventive techniques to improve a person's general well-being. It is because of these practices that D.O.s are "people oriented" - they genuinely care about you and your family's health.... The D.O. focus is upon achieving a lasting improvement in your total health (p. 3).

The statements made by Metro Health Centre may impress D.O.s and patients alike, but evidence for the "D.O. difference" is somewhat lacking. To date, no study has been conducted comparing the quality of practitioner-patient relationships formed by D.O.s with those formed by M.D.s. I echo Gevitz's suggestion that osteopaths in the USA are facing an identity crisis.

2.2 Australasia

2.2.1 History of osteopathic education and practice.

Osteopathy arrived in the Asia-Pacific region in the early 1900s. The first osteopaths here were graduates of the ASO, and they practiced manual therapy (Hawkins & O'Neill, 1989; Skinner, 1989). In this region of the world, osteopathy became closely aligned with chiropractic. This link with a larger, and somewhat similar profession, helped the osteopaths to obtain statutory registration and recognition.

2.2.1.1 Australia.

Hawkins and O'Neill's work (1990), Osteopathy in Australia, traced eighty years of osteopathic practice (1909-1989). Osteopathy was introduced to Australia by a small band of ASO graduates. Edgar Culley and Emeline Tappan, a married couple, and Florence MacGeorge, completed Still's two-year course in 1900, but there is no record of their working in Australia until 1909 and 1913, respectively. James and Isabella Brake, siblings, were enrolled in the ASO course at Kirksville in 1905 by their father, a Victorian parliamentarian who had been successfully treated by Still. Upon graduation, the Brakes returned to Melbourne to practice. For two decades, the Brakes' Collins Street practice was the hub of Australian osteopathy, with up to six practitioners, including Culley, working from this address (Hawkins & O'Neill, 1989).

The profession grew slowly. By 1939 there were thirteen osteopaths in Victoria and fewer still in New South Wales. The Australian medical fraternity did not welcome these

early osteopaths, and several were charged with misuse of the title "doctor." Unlike similar cases in the USA, these charges were upheld, and the practitioners fined. "The law and its interpreters opposed the use of any title that might suggest an unregistered practitioner was a real doctor" (Hawkins & O'Neill, 1989, p. 23). Thus, as early as 1926, Australian osteopaths faced the challenge of obtaining government level registration, and statutory protection of practice rights.

James Doyle, a Canadian trained osteopath, established the first Australian osteopathic college, the Pax College of Osteopathy, in Ballarat. Doyle was also a printer, and with the assistance of enrolled osteopathic students, operated a printing business during the day. He taught classes in osteopathy in the evenings. Several sources indicated that the Pax College opened in 1933 (Webb, 1977; Portelli, 1986), but there is some doubt as to whether teaching of osteopathy began in earnest until 1947 (Hawkins & O'Neill, 1989). Graduates of the Pax College were awarded the degree Doctor of Osteopathy, but were apparently safe from prosecution because the small print along the bottom of their certificates stated that "This is purely an institutional distinction and not a public appellation or title" (Hawkins & O'Neill, 1989, p. 29).

From the 1940s onwards, private colleges training osteopaths opened in Melbourne and Sydney. For the most part, these colleges trained students in several disciplines: osteopathy, chiropractic, naturopathy, homoeopathy, and were not strictly colleges of osteopathy. Neither did these colleges exist for extended periods, but opened, closed, merged with other colleges, and altered their curricula to suit trends and fads in alternative medicine, and to avoid persecution from the allopathic medical profession (Webb, 1977).

In 1959, A. F. Kaufmann founded the Sydney College of Osteopathy (SCO). Kaufmann had completed his osteopathic training in Britain, and practiced there for some time before immigrating to Australia in 1946. Kaufmann was also awarded a Doctor of

Osteopathy degree from Pax College in 1957, although this was probably an honourary title (Hawkins & O'Neill, 1989). Kaufmann and Doyle maintained close ties, and when Doyle died in 1965, Kaufmann purchased the Pax College of Osteopathy, and moved it to Sydney but maintained it as separate from the SCO (Webb, 1977).

In 1970 Kaufmann retired, and the Pax College merged with the SCO. In 1972, the new, combined SCO was renamed the Sydney College of Osteopathy and Chiropractic (SCOC). From 1972 to 1985 students at SCOC obtained the awards Doctor of Osteopathy and Doctor of Chiropractic concurrently (Hawkins & O'Neill, 1989). Some osteopaths took offence at the SCOC awarding degrees in both disciplines. They argued that osteopathy and chiropractic were not the same, and refused to consider SCOC graduates as colleagues (Hawkins & O'Neill, 1989). The SCOC closed in 1985.

In 1974 Bryyon Lambert and Evan Lallemand, osteopaths in New South Wales, established the Windsor College of Applied Osteopathy in Sydney. In August of the same year, the Australian Federal Government Health Minister directed that there be a Royal Commission inquiry into alternative medicine in Australia. The committee of inquiry into chiropractic, osteopathy, homoeopathy and naturopathy, chaired by Edwin C. Webb, released a final report in 1977: the so-called, "Webb Report." This report set the tone for alternative medicine in Australia for the next two decades, particularly in that the committee refused to acknowledge osteopathy (or chiropractic) as a complete system of medicine, but freely recognised osteopaths as "skilled spinal manipulators" whose therapy was "beneficial for conditions of the musculoskeletal system" (Webb, 1977, pp. 125-126).

Following the recommendations of the Webb Report, registration of osteopaths in Australia was limited to the practice of musculoskeletal medicine and manipulative therapy, thus shaping both the practice, and public perception, of osteopaths. Registration

of osteopaths in Australia occurred at State Government level. New South Wales and Victoria were the first states to register osteopaths in 1978 (Parliament of Victoria, 1978).

The International Colleges of Osteopathy (ICO) formed in 1981, and incorporated the financially strapped Windsor College, and several other small colleges. The Pacific College of Osteopathy (PCO) formed in 1983, as an exclusively osteopathic breakaway of third and fourth year students and staff from the New South Wales College of Natural Therapies. The ICO, Windsor College, and the PCO, all offered four-year, part-time courses, leading to a Diploma of Osteopathy (Dip. O). The courses were similar in content and standard, and many graduates from these programmes registered as osteopaths. There was, however, no certainty that graduates would be permitted to register. The Chiropractors and Osteopaths Registration Board of New South Wales set examinations for new registrants, and students feared that the strong chiropractic presence on most boards might bias the exam results (Hawkins & O'Neill, 1989). The PCO ceased osteopathic education in 1985 once all students had graduated. The ICO did the same in 1986.

Lobbying by practitioners in the other states led to the progressive introduction of registration in all Australian states and territories. Everywhere except Western Australia, registration was initially introduced as a combined "Chiropractors and Osteopaths Act" as had been recommended by the Webb Report (1977).

In February 1986, government funded, undergraduate osteopathic education commenced at Phillip Institute of Technology (PIT) at Bundoora in Melbourne's northern suburbs (Hawkins & O'Neill, 1989). The first class of eleven graduated with the single B.App.Sc. award, and registered as osteopaths at the end of the 1990 academic year. Between 1987 and 1993 inclusive, this programme was the only course of osteopathic education available in the Southern Hemisphere (Verbowski, 1990).

PIT merged with the Royal Melbourne Institute of Technology (RMIT) in 1991. Then in 1994, RMIT was granted university status. New management introduced a new degree title, without marked change to the existing course content. Osteopathic students entering RMIT from 1991 onwards, thus graduating from 1995 onwards, were part of the "double degree" era, with pre-registration osteopathic training awarded as two degrees completed over five consecutive years.

This change brought osteopathic education (and chiropractic education, which underwent the same change at the same time) into line with Australian medical education. In 1991, Australian medical training ranged between five years full time to obtain the single degree Bachelor of Medicine at the University of Newcastle, and seven years full time to obtain three degrees, Bachelor of Medical Science, Bachelor of Medicine, and Bachelor of Surgery at the University of Tasmania. The most common form of medical education was six years full time to obtain the double degree, Bachelor of Medicine and Bachelor of Surgery.

Since the Webb Report in 1977, there has been little investigation into osteopathy in Australia. The notable exception was Jamison's two part study of Osteopathy in Australia: a Delphi study followed by a survey of all members of the Australian Osteopathic Association (AuOA); (Jamison, 1991a, 1991b). The AuOA was not a unified national body until 1992, and so Jamison drew on members of several state based professional associations affiliated with the AuOA in Melbourne for her sample.

Jamison's investigation contained some bias. The Delphi study, aimed at canvassing the opinions of osteopaths in leadership of the profession, drew only on past and present members of the PIT (now RMIT University) osteopathic course advisory committee. Other areas of professional leadership were disregarded. Similarly, Jamison's survey of osteopaths only included those who were members of organisations affiliated

with the AuOA. These were professional organisations, but not government registering bodies and, therefore, did not represent the whole of the osteopathic profession. At the time of Jamison's study, the AuOA claimed to have approximately 80% of Australian osteopaths as affiliates.

These concerns aside, Jamison's study highlighted disagreement within the osteopathic profession. Jamison (1991a) maintained that there was "a paucity of research documenting the practice of osteopathy in Australasia" and that the scope of osteopathic practice in Australia was "poorly defined." Jamison (1991a) requested that the Delphi panel identify priorities for osteopathy under the headings of research, education, politics, and professional interaction. The Delphi panel regarded the "enunciation of a definitive scope of practice...as least important" (Jamison, 1991a) whereas 80% of AuOA survey respondents favoured the development of "a uniquely Australian osteopathic model with expanded practice rights" (Jamison, 1991b). Clearly, the osteopathic course advisors of PIT and membership of the AuOA disagreed over the importance of clarifying osteopathic practice in Australia.

1996 was a year of change for Australian osteopaths. The Victorian State Government reviewed all of that state's medical practice acts, including the Chiropractors and Osteopaths Act of 1978. Victorian osteopaths campaigned strongly for the State Government to separate osteopathic registration from chiropractic, and draft a completely new Osteopaths Act (Parliament of Victoria, 1996). This campaign was successful, and the Osteopaths Registration Board of Victoria commenced activities in July 1997 (Gibbons, 1997).

Registration of osteopaths was introduced in Western Australia, as the Osteopaths Act 1997. The inaugural Osteopaths Registration Board meeting was held in May 1998 (Leebold, 1998). Also in 1997, osteopaths in Queensland, and New South Wales,

commenced lobbying to separate the registration of osteopaths from chiropractors (Fendall, 1997; Munoz, 1998).

2.2.1.2 New Zealand.

Osteopathy arrived in New Zealand from the USA in approximately 1930, but specific details of the early practitioners are unavailable. Florence MacGeorge graduated from the ASO in 1900 and practiced in Nelson in the South Island in the 1930s (Hawkins & O'Neill, 1998). In the North Island at this time were: (a) Montegue Lascelles, an ASO graduate, who practiced in Palmerston North; (b) Henry Turner, a Kirksville Osteopathic College graduate, who practiced in Wellington; and two osteopaths in Auckland; (c) Noyce Granger, whose qualifications were unknown; and (d) Earl Hope-Pearson, also a graduate of the Kirksville Osteopathic College (Skinner, 1989). The ASO name was changed to the Kirksville Osteopathic College in 1925 (Allen, 1995).

Osteopaths in New Zealand at this time worked under common law, and practiced predominantly manual therapy. There are no records of law suits against these early osteopaths. There were, however, several failed attempts by the osteopaths to legislate osteopathy in New Zealand in order to grant legal protection to their work. In the 1940s, Turner, who believed he was the only properly qualified osteopath in New Zealand, attempted to pass a private members bill to register only himself. Unsuccessful, Turner returned to the USA to work as a medical practitioner (Skinner, 1989).

Murdoch Ross, a naturopath, and self-taught osteopath, practiced in Auckland in the 1940s and 1950s. Ross founded the New Zealand Naturopathic Association, which was later renamed the New Zealand Association of Naturopaths and Osteopaths (NZANO). Walter Elliott and Charles Wing, both British trained naturopaths and osteopaths, immigrated to New Zealand in the 1950s, and joined the NZANO.

Skinner (1989) reported that osteopathic education commenced in New Zealand in the 1960s, under the direction of Roy Powell, in association with the NZANO. Initially Powell acted as overseer for a handful of students who trained as apprentices under the supervision and guidance of immigrant British or Australian practitioners. Training became more formalised over time, and was named the South Pacific College of Naturopaths and Osteopaths (SPCNO). NZANO underwent a name change to become the South Pacific Association of Naturopaths and Osteopaths. SPCNO remained in operation until 1979 (Parr, 1992).

Skinner (1989) criticised the quality of osteopathic training provided at the SPCNO, and indicated that "diplomas were in the habit of being dished out to all and sundry...and thus the necessity arose to form a professional register" (p. 7). The New Zealand Register of Osteopaths (NZRO) formed in 1973. Skinner's (1989) account of these events probably contained some bias because he was the first osteopath listed on that register, and held the position of registrar for 8 years (1973-1981). The NZRO was not a statutory register, but a professional listing. Membership of the NZRO was limited to those graduated from full-time, tertiary level qualifications in osteopathy (Penney, 1996; Skinner, 1989).

In 1977, the NZRO tabled legislation for the New Zealand parliament to limit the use of the letters "N.Z.R.O." following the name of NZRO members only. This bill was passed as the New Zealand Register of Osteopaths (Inc) Act 1978, and did not limit the use of the title "osteopath," nor restrict practice in any way (Working Group on Occupational Regulation [WGOR], 1989). There were complaints from non-NZRO members, who suggested that this legislation would restrict their trade, but no challenges resulted (Skinner, 1989).

In 1979, Robert Bowden, an Australian trained osteopath and member of the NZRO, established the Still Memorial College of New Zealand. This college closed before any students had graduated (Parr, 1992). Honorary degrees, however, were issued to a few foreign trained osteopaths to: (a) acknowledge their contribution to the osteopathic profession in New Zealand, and (b) allow those with part-time qualifications to become members of the NZRO. In 1989, Bowden was honoured with the NZRO "Osteopath of the Year" award in recognition of his contributions to the osteopathic profession in New Zealand (Verbowski, 1990).

The Osteopathic College of New Zealand (OCNZ) was established in 1984 by Melva Martin. Martin had been a member of the NZRO, but was required to resign in the late 1970s when it became apparent that she was planning a part-time programme to train osteopaths (Parr, 1990). During the 1980s, the OCNZ programme was heavily criticised by members of the NZRO, who argued that osteopaths could not be effectively trained by distance methods and supervised clinical contact alone. The NZRO insisted that osteopathic education necessitated workshop classes to teach osteopathic manual techniques. OCNZ graduates applied to join the NZRO, but were refused on the grounds that their training had been part-time and partly by correspondence. These graduates formed their own professional association, and voluntary register, called the International Society of Osteopathic Practice (ISOP; Parr, 1990).

During the mid 1980s the South Pacific Association of Naturopaths and Osteopaths reached an agreement with the NZRO to allow naturopaths practicing primarily manipulation to register with the NZRO. The practitioners concerned were required to take additional training, and sit clinical competency examinations, organised by the NZRO. Five members joined the NZRO via that agreement (Skinner, 1989). Thus by 1985, there were three professional associations for osteopaths in New Zealand: (a) the NZRO, who

required members to have completed full-time osteopathic education, usually in Britain or Australia, with a few notable exceptions; (b) ISOP, who accepted members from part-time osteopathic programmes, particularly the OCNZ; and (c) the South Pacific Association of Naturopaths and Osteopaths.

During 1989, the Working Group on Occupational Regulation (WGOR) reviewed the legislation governing several occupations in New Zealand. The WGOR acknowledged the lack of unity within the New Zealand osteopathic profession, and described osteopathy as "possibly the least well defined of all occupations involved in this review" (WGOR, 1989, p. 4). During the review, the NZRO lobbied to have the 1978 legislation expanded to form a statutory register for osteopaths, which would have excluded non-NZRO members. This request was refused on the grounds that there was no evidence to indicate that registration made the practice of osteopathy any safer for the public. The NZRO were unable to justify their suggestion that non-members were inadequately qualified for safe practice, and should not be permitted to use the title "osteopath." The WGOR recommended, therefore, that the New Zealand Register of Osteopaths (Inc) Act 1978 be repealed without replacement, because the details of this act were duplicated in more recent acts, namely the Summary of Offences Act 1981, section 20, and the Fair Trading Act 1986. Under these more recent acts it was illegal for anyone to give the impression that they had qualifications, or membership of a professional association, without actually having the same (WGOR, 1989).

Neither ISOP nor the NZRO was likely to achieve statutory registration at the exclusion of the other. In 1996, the NZRO and ISOP worked together to table another osteopathic bill, known as the Phoenix Bill, in the New Zealand parliament. Markedly less conservative than previous legislative attempts, this bill allowed non-NZRO (i.e., osteopaths with part-time training) members to obtain statutory registration if they passed a

licensing examination set by the New Zealand General Council of Osteopaths (Grace, 1997; Penney, 1996).

The Phoenix Bill moved through several parliamentary amendments, but was not enacted into law. The 1989 conservative government under James Bolger shared the view of the WGOR, that there was no significant consumer risk from osteopathic practice, and that statutory registration of osteopaths would lead to considerable government expense without measurable returns. The NZ Labour Party demonstrated interest in the bill, but were unable to move it into law while in opposition. NZRO and ISOP members await a change of government to table the Phoenix Bill again (Grace, 1997; Grace & Penney, 1997).

Several ISOP members have commenced postgraduate diploma training, based in New Zealand but overseen by RMIT University in Australia. This programme is intended to prepare ISOP members to sit examinations that, if passed, will allow them to join the NZRO (C. MacFarlane, personal communication, January 9, 1999). Although the New Zealand government is hesitant to establish statutory registration for osteopaths, the osteopaths have made significant moves towards professional unity, minimum educational standards, and self-regulation. The most recent collaborative project was the development of a list of Minimum compentency levels required for osteopathic practice that were acceptable to both groups (NZRO & ISOP, 1999).

2.2.2 Current osteopathic education.

Currently, osteopathic graduates from RMIT University are awarded a double degree; B.App.Sc. and B.O.Sc. (Bachelor of Applied Science, Bachelor of Osteopathic Science) (Sturges, 1996). In December 1998, Victoria University of Technology awarded its first class of osteopathic graduates with the double degree B.Sc., M.H.Sc. (Bachelor of Science - Clinical Science, Master of Health Science - Osteopathy). Undergraduate

osteopathic education commenced at the University of Western Sydney (UWS) at the start of the 1998 academic year. In line with the RMIT and Victoria University programmes, this training is of five years duration, but will be awarded as Bachelor of Science (Human Bioscience), Master of Osteopathy (Harrison, 1997).

A similar programme commenced in New Zealand in February 1999 (UNITEC, 1998). This programme was initially scheduled to commence in the 1997 academic year, but was delayed by the protracted deliberations surrounding the Phoenix Bill of 1996 (Grace, 1997). Commencement in the 1998 academic year was delayed to allow a review of the proposed course structure by the New Zealand Qualifications Authority. Development of the osteopathic programme at UNITEC was a collaborative effort on the part of NZRO and ISOP members, in conjunction with the Faculty of Health Services at UNITEC. It is anticipated to provide a catalyst for legislation governing osteopathy, and statutory registration of osteopaths in New Zealand (Grace, 1997).

The OCNZ ceased osteopathic education in December 1998 to avoid competition between two osteopathic colleges. As of January 1, 1999, both the NZRO and ISOP altered membership requirements to read "a five year double degree as offered by UNITEC, Auckland or its equivalent" (I. Parr, personal communication, March 4, 1999). Equivalence, however, is determined by the respective professional association, not by UNITEC (Parr, 1992).

2.2.3 Current osteopathic practice.

Osteopaths reside and practice in Australia, New Zealand, Singapore, Malaysia, the Philippines, Hong Kong and Japan (Allen, 1995; Penney, 1996; Sturges, 1996; Takagi, 1996). Cultural variation notwithstanding, osteopathic practice throughout Australasia is similar from country to country. Osteopathic practice in Australia, New Zealand, Singapore, Hong Kong, and Malaysia is primarily manual therapy. Greater variation in

practice is seen in Japan, and little is known of osteopathic practice in the Philippines (Allen, 1995; Takagi, 1996).

In Australia, osteopaths must be registered with the government of the state or territory in which they practice. Use of the title "osteopath," therefore, is protected by statute, and its use by unregistered practitioners is a civil offence. In Victoria and Western Australia, osteopaths are registered as a discrete discipline. In all other states and territories, osteopaths and chiropractors are registered under the same act, but use different titles, according to their field of practice. In several Australian states, osteopaths are permitted, under the relevant registration acts, to use the title "doctor", provided they specify their field of practice. (e.g., Dr Melainie Cameron, B.App.Sc [Osteopathy]; or Dr Melainie Cameron, Osteopath.)

The population distribution of osteopaths is approximately representative of that of the general Australian population. The largest numbers of osteopaths are found in the capital cities of the east coast; Sydney, Melbourne, and Brisbane, in that order. The western, and northern areas of Australia are sparsely populated, and only a handful of osteopaths are found there (National Register of Chiropractors and Osteopaths, 1995).

The osteopathic profession in New Zealand is highly diverse for such a sparsely populated country. At present there are three major professional associations for osteopaths; (a) the NZRO, (b) the New Zealand Natural Health Practitioners Accreditation Board Inc (formerly the South Pacific Association of Naturopaths and Osteopaths), and (c) ISOP, but no statutory register. New Zealand has no government legislation to limit use of the title "osteopath." The professional associations act as unions, protecting the interests of practitioners, and lobbying the government to speed the process of registration (Grace, 1997; Parr, 1990; Penney, 1996; Skinner, 1989).

There are very few osteopaths practicing in Asia, although manual therapy has been a part of traditional Asian medicine for centuries. It seemed most appropriate to list, and briefly explain, the nature of osteopathic practice in each Asian country where osteopaths work. Osteopaths in Asia are predominantly immigrants, and their scope of practice has been determined as much by their educational background as by the laws of the country in which they now work. Asian osteopathic education occurs only in Japan. Similarly, only in Japan are there professional associations for Asian osteopaths (Takagi, 1996). By virtue of being the closest neighbours, the Australian Osteopathic Association allows Asian osteopaths as associate members (Tio, 1998).

The USA D.O. degree is not recognised for licensure for medical practice in Japan, but American osteopaths have substantial influence in osteopathic education and promoting OMM amongst Japanese doctors (Allen, 1995; Takagi, 1996). Three groups of osteopaths practice in Japan. Members of each group practice manual therapy, but come to osteopathy from different educational backgrounds.

There are the medical osteopaths: those trained and registered as medical doctors, who have learned osteopathic manipulation as a postgraduate "specialty." These practitioners have been taught primarily by American trained osteopaths, and hold a strong view that OMM should be practiced only by fully licensed physicians (Takagi, 1996). They have formed the All Japan Osteopathic Society (AJOS).

The dental osteopaths are those trained, and registered as dentists, who have found cranial osteopathy of particular use in managing patients with difficult jaw, and bite complaints. They have also been educated primarily by American trained D.O.s, and practice predominantly dentistry, supplemented by osteopathy in the cranial field.

The third group are manual therapists (Handhra & Gilmore, 1999). The educational background of this group is less clear, but they are neither fully licensed physicians nor

dentists. They have also formed a professional association and school, called the Japan Osteopathic Academy (Handhra & Gilmore, 1999).

There is a debate amongst Japanese practitioners, as to whether "osteopath" is a title that should be reserved for physicians, or used by all those practicing manual therapy in an osteopathic model (Takagi, 1996). The issue remains unresolved in Japan. Both the AJOS and the JOA have looked for local and international support for their style of education and practice (S. Sandler, personal communication, April 1, 1999). The AJOS has formed strong links with the Japanese Clinical Orthopaedic Association (Takagi, 1996), and the JOA has gained support from Kibi University and the British School of Osteopathy (Handhra & Gilmore, 1999).

Takagi (1996), a medical doctor and 1996 president of the All Japan Osteopathic Society, criticised the qualifications of the manual therapists in the JOA, and appealed to the AOA for support of his view that osteopathy be practiced by fully licensed physicians. British osteopaths, Handhra and Gilmore (1999), however, supported non-physicians training in, and practicing, osteopathy in Japan.

Most osteopaths currently practicing in Hong Kong are British trained (General Council and Register of Osteopaths [GCRO], 1996). The 1997/1998 change of governance of Hong Kong is expected to have some impact on the osteopathic profession in the long term. American trained D.O.s are eligible take part in the Licentiate Scheme in Hong Kong. Under this scheme, foreign trained doctors sit an examination and complete an externship in order to be granted a full medical practice license for Hong Kong (Allen, 1995). American D.O.s are readily granted full practice licenses for "short term medical practice" in China (Allen, 1995).

The USA osteopathic doctorate is not officially recognised in the Philippines, yet the only available record of an osteopath in this region details an American trained D.O.

working in family practice and sports medicine (Allen, 1995). I therefore assume that no restriction of trade is placed upon osteopaths in the Philippines, because there is no registration or licensing requirement. Osteopathy is probably relatively unknown in this region.

Osteopathy in Singapore is completely within the private business sector. There is neither official recognition nor regulation of osteopathy, nor any self-registering professional associations (Tio, 1997). The American osteopathic doctorate is not recognised in either Singapore or Malaysia, and the Singapore Medical Council will only grant full licensure to medical doctors trained at one of 11 medical schools, none of which are colleges of osteopathic medicine (Allen, 1995). Osteopaths, including American trained D.O.s, may work in Singapore under common law, practicing manipulation, and manual therapy. No formal education of osteopaths exists in Singapore, however, the number of osteopaths on the island has increased over the past five years because Australian trained osteopaths have immigrated (Tio, 1997).

Current records indicate that osteopaths practicing in Singapore and Malaysia have either Australian or British training, and have maintained membership of the appropriate professional association in their country of education (GCRO, 1996). It may be reasonably assumed that osteopathic practice in South East Asia is relatively similar to that in Australia and the United Kingdom because of the educational background of the practitioners concerned (Tio, 1997).

Regardless of their tendency to practice manual therapy, osteopaths throughout Australasia disagree as to the nature of osteopathy, and appear unable to describe their practice succinctly (Cameron, 1997; Carter, 1997; Lucas, 1997; Thompson, 1998). In 1994, the Queensland State Government removed any definition of osteopathy from legislation governing the practice of osteopathy. The previous definition of osteopathy as

"the manipulation of the spine" was perceived as inadequate, and unnecessarily restrictive (Chiropractors and Osteopaths Board of Queensland, 1995). Similarly, during the 1996 review of the Chiropractors and Osteopaths Act of 1978, the Victorian State Government was unable to define osteopathy adequately, and so chose to omit any form of definition from the new Osteopaths Act (Parliament of Victoria, 1978, 1996).

Individual practitioners remain divided as to what makes one an osteopath. Vardy (1996) expressed a view that certain manual techniques, particularly palpation of spinal joint motion, should be considered unique to osteopathy. Turner (1996) argued that osteopathy is a philosophy, a thought process, and not the application of technique.

Several AuOA members engaged in debate as to whether osteopathic manual techniques should be taught to medical doctors, and if so, what form this education should take (Good, 1996; Thompson, 1998; Turner, 1996; Vardy, 1996). This issue is unresolved, and the AuOA has made no official statement on the matter.

> Maslak (1989) described the future for osteopathy in the Oceania region thus:
>
> Australasian osteopathy should not be compared with American or European models, for our circumstances are different and our future must be self-determined.... Our role as health care providers in the community must constantly be evaluated and upgraded as required, and education and professional foresight must become the hallmarks of the evolution of osteopathy in Australia and New Zealand (p. 46).

2.3 Canada

2.3.1 History of osteopathic practice and education.

The geographical proximity of Canada to the USA, and the cultural ties of Canadians with the United Kingdom and Europe, produced a complex osteopathic history and present day practice.

The first osteopath recorded to have practiced in Canada was Florence MacGeorge. MacGeorge was born in Launceston, Tasmania, Australia, in 1867, and completed her osteopathic education at the ASO in 1900. She seemed to have made it her life's mission to transport osteopathy around the globe; practicing in the USA, Canada, England, France, Italy, Scotland, Switzerland, Australia, and eventually settling in Nelson in the South Island of New Zealand (Hawkins & O'Neill, 1989). There is no record of MacGeorge's work, but because she was a graduate of the ASO during the time of Still, it is reasonable to assume that she practiced manual therapy, and possibly surgery and obstetrics. It is unlikely that she prescribed medication (Gevitz, 1982; Hawkins & O'Neill, 1989).

Many USA trained D.O.s since MacGeorge, have made their way north. Regardless of progressive broadening of practice rights for D.O.s in the USA, most American osteopaths who relocated to Canada did so either to practice manual therapy or to retire (Allen, 1995).

Hawkins and O'Neill (1989) reported that James Doyle, who founded the Pax College of Osteopathy in Ballarat, Australia, completed his osteopathic education in Canada prior to 1933. The details of Doyle's qualifications are unknown. There was no formal osteopathic education in Canada until 1981, and it is, therefore, most likely that Doyle was trained as an apprentice alongside a USA trained D.O.. This type of osteopathic education probably represented the Canadian situation well in the early days.

In 1981, Philippe Druelle, a French osteopath, founded the Collège d'Études Ostéopathiques (Cd'ÉO) à Montréal. Cd'ÉO was a private institution, not connected with any university. Modeled on the system of osteopathic education used in France, the programme at Cd'ÉO differed markedly from osteopathic training in the USA. Class sizes were much smaller than in the USA--15 to 20 students, as opposed to 100 or more. Students entering the programme had previously trained as physiotherapists or sports

trainers, and continued to work in this capacity throughout their osteopathic education. Classes were taught in six, four-day modules per year. Graduates practiced manual therapy under common law, and moved throughout Canada.

T. Quentin Skinner of New Zealand was instrumental in establishing the NZRO as a voluntary professional register for osteopaths, and was chair of the same for eight years. Skinner traveled to Europe, and the United Kingdom, and later to Canada, visited osteopathic colleges, and advised Cd'ÉO staff of the process followed to form the NZRO (Skinner, 1989). The Register of Osteopaths of Québec (ROQ) formed in 1984 as a voluntary professional register for osteopaths practicing in Québec.

Cd'ÉO has had little of the financial difficulty that frequently troubled small, private osteopathic colleges. In 1992, the demand for osteopathic education was such that Cd'ÉO expanded significantly, opening two sister schools: Cd'ÉO à Québec in Charlesbourg, and the English medium Canadian College of Osteopathy (CCO) in Toronto. In 1996, in Montreal, Cd'ÉO hosted the first bilingual, international conference on OMM for osteopaths worldwide. Also in 1996, with support from the Registre des Ostéopathes de France (French Register of Osteopaths), Cd'ÉO graduates successfully lobbied the Québec provincial government to have ROQ members included in the provincial healthcare system as service providers (Druelle, 1996).

2.3.2 Current osteopathic education.

All of the Canadian COMs require applicants to have completed at least a three-year Bachelor degree in the health sciences, most commonly physiotherapy (Druelle, 1996). Students of Cd'ÉO and CCO are required to complete 1600 hours of formal osteopathic education, part-time over five years. Approximately 1000 hours are spent in formal classes. The remaining, predominantly clinical, components of this training programme are completed in the physiotherapist's private practice, thus students work

while studying, and relieve the colleges of many of the difficulties associated with managing teaching clinics.

After formal classes have been completed, students are allowed another two years to complete a thesis, which must be defended before an international jury prior to being passed. Doctor of Osteopathy: Manual Practice (D.O.M.P.) is awarded to osteopathic graduates in Canada upon completion of the five-year, part-time programme (Druelle, 1996). Professional courtesy, however, deems that the title "D.O." is reserved for those whose theses have been passed (J-G. Sicotte, personal communication, November 22, 1996). COMs in Canada are private institutions without links to universities. Thesis requirements and assessment in these COMs is markedly different to that in other countries, where osteopathic education is within the university system. The international jury assessing theses for the Cd'ÉO consists only of osteopaths, many of whom are well known internationally, but few are researchers or academics.

2.3.3 Current osteopathic practice.

The osteopathic profession in Canada is dichotomous. USA-trained D.O.s, fully licensed as physicians, practice alongside Canadian trained D.O.M.P. graduates. All medical, and allied health practitioner, registration in Canada occurs on a province by province basis, and licensure in one province does not immediately guarantee licensure in another. ROQ members are included in the health care system in Québec (Druelle, 1996). This is not statutory registration, but an intermediate arrangement in which the government accepts the standards set by the ROQ for membership. In all other Canadian provinces, locally educated osteopaths are not recognised as service providers by the respective governments, leaving them outside of the provincial healthcare system, and unable to gain third party payments for services.

USA trained D.O.s are eligible for full medical licensure in four provinces only: Alberta, Ontario, Québec, and British Columbia. Non-Canadians must provide a statement of intention to become a citizen, and a command of the French language is a statutory requirement for practice in Québec. Regardless of full licensure, approximately 38% of United States trained D.O.s practicing in Canada are either USA National Board certified in Osteopathic Manual Medicine (OMT) or practice predominantly OMT. A further 48% are retired and in 5% of cases, the area of an osteopath's practice is not known by the American Osteopathic Association. Only 9% of USA trained D.O.s practicing in Canada actually take advantage of being fully licensed physicians (Allen, 1995).

The bipolar nature of the Canadian osteopathic profession presents an opportunity for animosity and prejudice, but this has been little problem. That so few American trained osteopaths in Canada actually practice across the breadth of medicine has eased this tension somewhat. The Canadian osteopathic profession is small in total, and has seen that it cannot afford to be divided by arguments over education background. Druelle (1996) clearly stated his intention to work alongside USA trained osteopaths to advance the osteopathic profession in Canada:

> ...we find two different kinds of osteopaths.... One has complete medical training with a limited focus on manual therapy and the other has a solid background in the health sciences and a complete education in the manual practice of osteopathy. Our professional orientation has followed different paths and we are now faced with a choice: to slowly merge together our educational standards or to foster a climate of mutual respect for each other's professional activities. We are ready to work together to achieve common goals (Druelle, 1996, p. 5).

2.4 Europe

2.4.1 History of osteopathic education and practice.

Osteopathy in Europe is as complex and varied as the continent itself. For the past century osteopathy has been a small and factious profession with variable standards for both practice and education. Literature detailing osteopathy in continental Europe is frequently coloured by personal bias and animosity as was displayed at the 1996 American Academy of Osteopathy Annual Convocation: Osteopathic International Forum in Atlanta, GA. Two European osteopaths, representing different parts of the osteopathic profession on the continent, vehemently disagreed with each other's view, and almost came to blows on the podium (P. Cheval, personal communication, December 10, 1996).

Osteopathy came to Europe, initially to France, from England in the 1950s. The first French osteopathic college, L'Ecole Français d'Ostéopathie (EFO) opened in Paris in 1951 (European School of Osteopathy [ESO], 1997; McKone, 1997). Paul Geny was principal, and several French and Belgian osteopaths taught the part-time course, which was conducted in four-day seminars, several times per year (Lusty, 1993).

The legal systems of continental Europe, except in Switzerland, have their roots in Napoleonic law, in which legal practices are clearly specified, and all other practices are assumed illegal. When osteopathy first arrived in Europe, it was not a specified legal practice, and was therefore illegal. In January 1962, the French government passed legislation that permitted only medical doctors to practice osteopathy (Lusty, 1993). Osteopathy as taught at the EFO was illegal in France, and Geny suffered considerable personal expense in fines for training non-doctors to be osteopaths (M. Bloomfield, personal communication, November 28, 1996).

Geny convinced Thomas Dummer to relocate the EFO to London in 1965, as the French wing of the British College of Naturopathy and Osteopathy (BCNO). In 1971,

Dummer moved with the EFO to Maidstone in southern England. The EFO became known as L'Ecole Européene d'Ostéopathie (EEO; Lusty, 1993).

In 1974, the EEO introduced a full-time, English-medium osteopathic course, that was open to British, as well as, French students. The EEO name was translated into English as the European School of Osteopathy (ESO, 1997; Lusty, 1993).

Osteopathy spread gradually from France to the rest of Europe. Most osteopathic colleges that commenced in Belgium, Portugal, Germany, the Netherlands, Italy, and Spain, adopted the French model of part-time osteopathic education (Fuhrmann, 1996; Lason, 1996; Vandenschrick, 1996). Many European colleges did not have large campuses or teaching clinics. Lectures, and seminars were conducted in hired conference venues, clinical training was undertaken primarily in private practices. Several French colleges shared in operating a teaching clinic at La Maison des Ostéopathes in Paris (Lusty, 1993).

To avoid the legal dilemma associated with training osteopaths, many European colleges limited entrance to postgraduates, to those already trained and registered as physiotherapists or medical doctors (Lusty, 1993). Most of these colleges did not operate teaching clinics--students were encouraged to return to their own practices and implement the "osteopathic techniques" taught in classes. Graduates also found themselves with a legal loophole in which to practice. By maintaining government registration in either physiotherapy or general medical practice, osteopaths practiced using two titles. If challenged regarding their work, dual qualified practitioners argued that they were registered in another professional capacity, and that the practice under scrutiny was part of either physiotherapy or medicine.

A few French colleges entered partial franchise agreements with British COMs in order to offer clinical training. Unlike the complete relocation of the EFO to England, students at these colleges continued to attend classroom based studies in France. They

moved to England only to complete the final clinical aspects of their osteopathic education. Some of these partial franchise arrangements continue today (Fletcher, personal communication, October 14, 1999).

The first Belgian osteopath charged with making an income from an illegal practice was convicted in March 1985. In sentencing, the judge (as cited in Hamerlinck, 1994) made clear that the charges were laughable because the practitioner was of no threat to the public.

> The accused may render services, he is said to have had a training of high standing, his refusal to work clandestinely is appreciated, his intervention's efficacy is commended, and teaching osteopathic art at college is said to be desirable. He is condemned, only to a minimum penalty, however, and it is specified that the accused is an honourable and serious person, that he is mindful of the public interest, and that his behaviour is inspired by the professional, and even scientific ideal he is pursuing rather than by a precise desire of obstructing or breaking the law (p. 2).

Several European osteopaths indicated that they found the dual registration loophole unethical, and preferred to practice osteopathy openly, regardless of the legal consequences, in an attempt to hasten statutory registration (Cheval, 1996; Lason, 1996). Cheval (1996) argued that if osteopaths across the EEC were transparent about their practice, then governments would eventually acknowledge the osteopathic profession as an active part of the European community, leaving no sound argument as to why osteopathy should remain illegal.

The International Academy of Osteopathy (IAO), based in Belgium, is one such college, where graduates are encouraged to practice openly as osteopaths with a view to raising the legal status of the profession. In support of this view, the IAO commenced full-

time, undergraduate osteopathic education in 1996. Graduates due to emerge from this programme in 2000 will be trained only as osteopaths, and will have little choice but to practice as such.

The Société Belge d'Ostéopathie (SBO) [Belgian Society for Osteopathy] was formed in 1986. The primary goal of the SBO was to secure legal status, and statutory registration of osteopaths in Belgium. In 1987, the SBO registered the title of "Osteopath, D.O." as a trademark for SBO members in Belgium and Luxembourg (Hamerlinck, 1994).

Early in 1993, the SBO applied to the State Council, the highest court in Belgium, to acknowledge the SBO as a professional union. The National Bureau of the Medical Order of Belgium lodged a complaint against this application in June, 1993, and the Public Health department lodged a similar complaint in November, 1993. In 1994, the Belgian king decreed that osteopaths in Belgium were legally allowed to form professional associations. Multiple complaints followed from: (a) the Association of Physicians specialised in Physical Medicine and Rehabilitation, (b) the professional Union of Orthopaedic and Traumatologic Surgeons, and (c) the Association of Rheumatologists. The SBO appealed, and the State Council dismissed the physicians' complaints. These small achievements did not include statutory registration to the osteopaths, but indicated the beginning of formal recognition of osteopathy in Europe (Hamerlinck, 1994).

Osteopathy arrived in Portugal in the late 1970s--practitioners were French and British trained immigrants. A school of osteopathy, modeled on the French part-time system of osteopathic education, and the Portuguese Osteopathic Association commenced simultaneously in 1990. In 1994, the Associacao e Registo dos Osteopatas de Portugal (AROP) [Association and Register of Portuguese Osteopaths] was established, with the aim of uniting osteopaths in Portugal. In 1995 all other osteopathic professional associations merged with the AROP. The move from disunity to unity was a significant

step toward statutory registration of osteopaths in Portugal, and in 1996 the AROP was made an Institution of Public Utility, and therefore granted government recognition (Lucas, 1996).

Osteopathy spread to Switzerland from France, in the early 1980s. Most Swiss osteopaths are French speaking, and trained in the French, part-time model of osteopathic education. Chaille (1996) explained that away from the complexities of French law, Swiss osteopaths enjoy "unofficial recognition," similar to the common law practice in New Zealand (p. 2). There have been no law suits against osteopaths or osteopathic colleges in Switzerland (Chaille, 1996).

La Société Internationale d'Ostéopathie (SIO; International Society of Osteopathy) was founded in Geneva, Switzerland, in 1990, as an umbrella organisation for osteopathic colleges that offered full-time osteopathic education in Europe (Caprossi, 1996). Caprossi (1996) considered five years full-time to be the osteopathic educational gold standard for Europe. For membership of the SIO, colleges must be engaged in full-time osteopathic education, providing training of at least 5000 hours over a minimum of five academic years. This workload equates to 20 hours per week over 50 weeks of the year, or as is undertaken at Australian universities, between 28 and 38 hours per week over semesters of up to 20 weeks, twice per year. When the Swiss School of Osteopathy (SSO) commenced in 1991, the course was modeled on the programme at RMIT in Australia (Chaille, 1996). In particular, the programme was full-time over five years and open to undergraduates.

The Académie Suisse d'Ostéopathie (ASuO) formed in 1996 as an umbrella organisation to oversee osteopathic education in Switzerland. Osteopathic programmes accredited by the ASuO conformed with the SIO standards for full-time osteopathic education. The ASuO is also a political organisation, and has lobbied for statutory

registration of osteopaths in Switzerland, and negotiated with health insurance companies for rebates for osteopathic services (Chaille, 1996).

There have been some attempts to unite osteopaths in Europe, but with only moderate success. Two self-registering bodies formed recently. The European Register of Osteopaths (ERO) formed in 1992 (Hamerlinck, 1994). La Federation Européenne des Registres Nationaux des Ostéopaths (FERNO) [The European Federation of the National Registers of Osteopaths] formed in 1996 (Mousset, as cited in Rommeveaux, 1996). Both were umbrella organisations formed to oversee smaller registering bodies within individual European countries.

In 1996, there was significant friction between the ERO and FERNO, although I was unable to obtain a clear explanation of the issues involved. Practitioners were not permitted to join both FERNO and the ERO. Both registers have published directories of their members, but because registration is not statutorily required for practice, it could not be assumed that these lists combined represented the whole of the European osteopathic profession. Both groups considered only their own members to be "the osteopathic profession" (Cheval, 1996). Both FERNO and the ERO have lobbied European governments to legalise osteopathy throughout the EEC.

In April 1993, Paul Lannoye, member of the European Union parliament, and chair of the working group on alternative medicine, invited representatives from all groups of European osteopaths to inform the parliament of the practice and education of osteopaths (Hamerlinck, 1994; Lason, 1996). Hamerlinck (1994) described the lack of unity in European osteopathy apparent at this meeting:

> ...we were confronted with the paradoxical situation in which a health practitioner, officially acknowledged in one country [e.g., United Kingdom], could be

summoned to appear in court in another country of the Community [e.g., France] because of an illegal practice of medicine (p. 6).

Lannoye recommended, therefore, consistent legal status for osteopaths throughout the EEC (Hamerlinck, 1994). He also indicated that European osteopaths would need to settle their differences, and learn to work together (Lason, 1996).

The Procomed committee formed in 1996. Procomed was created to vocalise the needs and concerns of the complementary medicine sector within the European Union legislative process. Several osteopathic professional associations in Europe are represented by Procomed, and, therefore, negotiate with policy makers within the EEC (Lason, 1996). It is the policy of the EEC to progress toward a harmonisation of standards for all professions, so that people with EEC passports may move freely between EEC countries for work purposes. Advances towards statutory registration of osteopaths in Britain and Belgium have made the harmonisation of standards for osteopathic education and practice in Europe a pressing concern.

2.4.2 Current osteopathic education.

Osteopathic graduates in Germany are awarded Diploma of Osteopathy: Manual Practice (D.O.M.P.) following the French Canadian model (Druelle, 1996). Throughout the rest of continental Europe graduates receive a Diplome d'Ostéopathie Européenne (D.O.E.) [European Diploma in Osteopathy] (Caprossi, 1996). Despite this apparent continuity, and the efforts of umbrella organisations to enforce minimum educational requirements, standards vary markedly between countries.

European osteopathic education may be broadly divided into two subgroups: part-time, postgraduate training, and full-time undergraduate training. Part-time osteopathic training uses the French model of several seminars per year, over five or six years, to total approximately 1500 hours of class contact. Students in these programmes are

postgraduates, and knowledge of anatomy, physiology, and other human sciences is assumed. Clinical training is undertaken in the students' private practice, and is rarely supervised.

Full-time osteopathic training uses the Australian model of a five-year degree that includes classes in the basic sciences, as well as osteopathic techniques, and supervised clinical training. Full-time osteopathic education is available to undergraduates (i.e., school leavers), but is very expensive because the college takes the additional responsibility of operating a teaching clinic for students. The unusual legal situation in Europe has led to part-time education becoming the more common, whereas full-time education is the more highly regarded (Caprossi, 1996).

2.4.3 Current osteopathic practice.

There are a few multinational bodies attempting to unite European osteopaths, particularly within the EEC. Negotiations are in their infancy, and animosity and diversity remain.

La Federation Européenne des Registres Nationaux des Ostéopaths (FERNO) and the European Register of Osteopaths (ERO) are both umbrella organisations that unite several national registers of osteopaths. Most European osteopaths belong to a voluntary professional register that is linked with one of these two organisations.

Osteopaths practicing in the EEC, particularly in France, are sometimes charged and brought before the courts for "the false practice of medicine." Osteopaths who are not also medical doctors, practice illegally in France. There is speculation that this situation will change if other member states insist that osteopathy be legalised throughout the EEC (Vandenschrick, 1996). Usually such charges are civil charges, and are laid by medical practitioners concerned that osteopaths may be competing for patients. Paltry fines are

metered out to osteopaths found guilty and very rarely must osteopaths cease work following court action (Lusty, 1993).

FERNO has taken an assertive approach to the issue of illegality. Practitioners qualified as both osteopaths and physiotherapists or medical doctors are required to surrender registration in their other profession when they join FERNO, and thus publically declare their illegal practice.

Several professional associations and interest groups for osteopaths, some sharing links with registering bodies, are also active in Europe. None of these organisations has legal status or power to liaise with government, but provide collegiality and support for members. Swiss osteopaths are eligible to become members of Registre Suisse des Ostéopathes (Swiss Register of Osteopaths). Swiss osteopathic students are eligible to join the Swiss Association of Osteopaths (Chaille, 1996).

There are many osteopaths in Belgium, but the profession is not united. There are several osteopathic colleges and professional associations that accept membership only from graduates of favoured colleges. Similar to France, osteopathy is illegal in Belgium, and osteopaths have used professional associations to lobby both the Belgian government and the European Union consistently since 1993. On March 11th 1999, the Belgian parliament voted in favour of establishing legislation to legalise osteopathy in Belgium. The bill has yet to move through the senate, and a final decision on the legal status of osteopathy in Belgium is expected by the end of April 1999 (G. Lason, personal communication, March 12, 1999).

Natural therapies have been popular in Europe for many years, and are included within the German and Dutch public health systems. Osteopathy is widely practiced, and there are several schools training osteopaths in Germany, and the Netherlands. There are also several professional organisations that keep voluntary registers of members. The

osteopathic profession in Germany, the Netherlands, and Austria may be considered as comprising two groups; fully licensed physicians who practice osteopathy as a specialty, and manual therapists who practice exclusively manual therapy. Both groups wish to reserve the title "osteopath" for their exclusive use, but there is no legislation governing osteopathy in any of these countries that would allow either group to do so (Fuhrmann, 1996; Mohrle, 1996). American trained osteopaths are eligible for full practice licensure in Austria, Germany, and the Netherlands. Work permits are, however, often difficult to obtain, because non-citizens must demonstrate that they are not taking work away from a European (Allen, 1995).

There are few osteopaths in Finland and Sweden, and all have completed their osteopathic education elsewhere. USA trained osteopaths are granted full practice privileges in both Finland and Sweden, provided that they can demonstrate proficiency in the Finnish or Swedish language, respectively (Allen, 1995). British and European trained osteopaths are free to work in both countries because there is no legislation governing osteopathy and, consequently, no restriction of trade.

The osteopathic profession is growing rapidly in the Mediterranean. Osteopathic colleges have opened in Portugal, Spain, and Italy. The impact of graduates from these colleges is expected to alter considerably the demographics of the profession in Europe in the near future (Lucas, 1996).

Most Mediterranean osteopaths completed their osteopathic education abroad. There is no record of osteopathic education in Greece, and all Greek osteopaths have completed their osteopathic education elsewhere. Most Portuguese osteopaths also completed their osteopathic education abroad. Many are Portuguese born, but traveled to France or England to study (Lucas, 1996). Some have maintained membership of osteopathic registers or professional associations in their country of training.

USA trained osteopaths are granted full practice privileges in Greece, Italy, and Portugal, provided that they can demonstrate proficiency in the respective language, and make clear argument that they are not taking work from a European citizen (Allen, 1995). British and European trained osteopaths are free to work in Italy, Greece, Portugal, and Spain because there no legislation governing osteopathy and no restriction of trade.

There are very few osteopaths in Latvia, and Russia. Most are fully licensed physicians who have completed postgraduate training in osteopathic manual therapy, and manipulation under the direction of visiting American or British osteopaths. There are no professional associations for osteopaths in Latvia or Russia (Andrianov & Bespala, 1996).

Education, practice, and legal recognition of osteopaths are not standardised throughout Europe. Expansion of the EEC to include the United Kingdom has further complicated the legal status of osteopathy in Europe. At the time of writing, osteopaths trained in Europe are free to work under common law in the United Kingdom, but osteopaths trained in the United Kingdom can only work "illegally" in some EEC countries (e.g., France). When the British Osteopaths Act 1993 is fully enforced, as is expected by May 2000, use of the title "osteopath" will be protected in the UK, and there is no assurance that European trained osteopaths will be granted registration to practice in Britain.

2.5 United Kingdom

2.5.1 History of osteopathic education and practice.

British osteopathy credits its beginning primarily to John Martin Littlejohn (1865-1947). A native Scot, Littlejohn completed his undergraduate education at the University of Glasgow, and in 1894 received a PhD from Columbia University (Berchtold, 1975). Between 1894 and 1898, while he was president of Amity College in Iowa, Littlejohn suffered neck and throat complaints and was directed to seek assistance from Still at

Kirksville. So impressed was Littlejohn with Still's work, that he became a student at the ASO, receiving his D.O. in 1900. Upon graduation Littlejohn was appointed Dean and Professor of Physiology at the ASO, and later that same year (1900) Littlejohn and his brothers founded the American College of Osteopathic Medicine, later called the Chicago College of Osteopathic Medicine (CCOM), in Chicago (McKone, 1996).

In 1902, a paper introducing osteopathy to the British was read at the Society of Science and the Arts in London. After this introduction, F. J. Horn became the first osteopath to practice in Britain. Several other American osteopaths followed Horn's lead, settling particularly in Scotland and Ireland. Littlejohn and Horn discussed the need for an osteopathic college in Britain as early as 1903.

A decade later, Littlejohn returned to Britain from America, and in 1917, established the British School of Osteopathy (BSO). The BSO was the first osteopathic college outside of the USA. It has always been located in London, but has used several premises (BSO, 1996).

Stanley Leif was an Englishman who traveled to the USA to study osteopathy under Benarr McFadden, a graduate of the ASO who subsequently established his own college. When he returned to England, Leif founded the British College of Naturopathy and Osteopathy (BCNO) in Wyndham Place, London, in 1938 (BCNO, 1996b).

In 1965, the BCNO opened a Cours Francais. Sixteen French osteopathic students, Thomas Dummer, and Paul Geny, relocated L'Ecole Français d'Ostéopathie from Paris to the BCNO in London (Lusty, 1993). The French school "in exile," expanded rapidly, and by 1971 moved entirely to Maidstone, in southern England, where it was called L'Ecole Européenne d'Ostéopathie (EEO). In 1974, the EEO commenced full-time osteopathic education in English, and became known as the European School of Osteopathy (ESO; Lusty, 1993; ESO, 1997).

The EEO / ESO has remained in Maidstone since 1971, but in several premises. In 1979, the ESO moved from the Maidstone Clinic, to larger premises in Tonbridge Road, Maidstone. By 1996, the Tonbridge Road premises were also overcrowded, and the ESO purchased Boxley House, a 17th century hotel, that was then refurbished as a college and teaching clinic (ESO, 1997).

The 1980s were a decade of division for British osteopaths. There were four professional associations, each operating a voluntary register. Each association considered its own members to be "the osteopathic profession," and did not usually communicate with the other associations. The divided nature of the British osteopathic profession at this time led to considerable animosity and prejudice, and to the unnecessary replication of services for osteopaths (Edwards, 1994).

Osteopaths trained in Britain between 1917 and 1989 were awarded the Diploma of Osteopathy. The abbreviation D.O. was used for this award as well as for the Doctor of Osteopathy awarded at COMs in the USA, and led to considerable confusion. In 1989, an osteopathic training programme for the award of Bachelor of Science (B.Sc.), was developed at the BSO, and validated by the Open University. The move from internal, to external validation, was a significant advance in osteopathic education (Edwards, 1994).

The BCNO obtained external validation for a B.Sc. from the University of Westminster in 1991. The ESO obtained the same through the University of Wales in 1993. A research requirement, apparently "always a part of osteopathic education" (P. Fletcher, personal communication, October 14, 1999), has since been acknowledged in osteopathic training, upgrading the award to Bachelor of Science with Honours (B.Sc.[Hons]; Standen, 1996).

Up until 1992, osteopathy was a divided profession in the UK. A survey conducted by the British Accreditation Council in 1988 identified 14 osteopathic colleges, associated

with four professional associations and voluntary registers (Edwards, 1994). The beginning of osteopathic unity in the UK was observed in April 1992, when osteopaths from varied educational backgrounds, and representatives from all osteopathic professional associations, joined together to hold a general conference for all osteopaths, Osteopathy 2000 (Edwards, 1994).

In 1993, the Osteopaths Act passed through the British parliament. This act, which paved the way for statutory registration, required the formation of the General Osteopathic Council (GOsC) to act as registration board, insurer, and professional association for all osteopaths in the UK. Edwards (1994) commented that "there seems little doubt that the GOsC will expect to engage with a unified profession" (p. 122). Edwards was correct, and by mid-1997, all professional associations that previously represented osteopaths encouraged members to communicate with the GOsC.

The Osteopaths Act 1993 did not include a definition of osteopathy, but was clearly aimed to protect the public and limit osteopathic practice. Interpretation of the act required general knowledge as to what constitutes osteopathic practice. In 1993, there were many more osteopaths than chiropractors or private practice physiotherapists in the UK, thus much of the public confusion regarding the role of each profession, which has marked the Australasian situation, did not occur in Britain. During 1993, 700,000 Britons sought the services of osteopaths for relief of back pain as opposed to 300,000 each seeking chiropractic manipulation or private physiotherapy (General Council and Register of Osteopaths [GCRO], 1996).

On February 1, 1996, 24 council members were appointed to the GOsC, with Simon Fielding as chair. Approximately 200 nominations were received for the 24 positions available. Baroness Cumberledge, the Minister for Health, commented that this

number of nominations reflected considerable support for the statutory registration of osteopaths, both from within the profession, and from other organisations (Daniels, 1996).

In April 1997, the Privy Council appointed Madeline Craggs as registrar and chief executive of the GOsC (Daniels, 1998a). The GOsC was charged with the responsibility of developing a process that would: (a) protect the title of "osteopath," (b) ensure protection of the public from incompetent practitioners, and (c) set, regulate, and ensure common standards of training and competence (Craggs, 1998). It was also important that this process was even-handed, and allowed all practitioners using the title "osteopath" to put their own case for statutory registration. The GOsC requested that all osteopaths who wanted to be considered for registration completed extensive documentation that included clinical cases, and curriculum vitae. Called the Professional Profile and Portfolio (PPP), this was the documentation against which all applicants would be "individually evaluated in order to ensure parity without the need for a formal examination" (Daniels, 1998b, p. 4). The PPP was designed to allow the GOsC to judge practitioners' competence to practice. The General Osteopaths Council (GOsC) opened the statutory register for British osteopaths on May 9, 1998, at the sixth annual Osteopathy 2000 conference (Daniels, 1998c).

2.5.2 Current osteopathic education.

Among its other responsibilities to protect the public, and promote osteopathy; the GOsC is expected to take a significant role in overseeing, and ensuring standards within, osteopathic education. There are nine osteopathic colleges currently operating in the United Kingdom, and another in the Republic of Ireland. Courses range between 13 months and five years duration. Some are full-time, others part-time, and a few are of mixed mode. The longer, usually full-time, programmes are open to school-leavers, whereas the shorter, part-time programmes are tailored to the needs of mature students.

Entrance criteria (e.g., academic record, prerequisite subjects) vary between colleges (see Appendix F). The 13-month programme at the London College of Osteopathic Medicine (LCOM) is postgraduate training, available only to registered medical doctors.

Osteopathic education has always been part of the private sector in the UK, and is, therefore, expensive. Edwards (1994) commented that government grants of up to £5600 per annum were provided to students studying beauty therapy, but that students enrolled at the BSO received less than £715 in government support. In 1994, BSO fees were £5600 annually. Most osteopathic schools in Britain are registered charities, and although exempt from taxes, they do not receive any monies from the government coffers. British COMs are funded from three sources: (a) student fees, (b) fees patients pay for treatment in the college teaching clinics, and (c) the income generated by college fundraising committees (Edwards, 1994).

Validation of osteopathic courses by universities has not reduced the cost of education to the student. Several British COMs have obtained external validation of their programmes by universities, but have not moved into the universities proper. To do so would lower the cost of osteopathic education to the student, but increase the cost to the British taxpaying public threefold, and potentially compromise the autonomy of osteopaths to conduct education in the way they see fit (Edwards, 1994).

2.5.3 Current osteopathic practice.

The British Medical Association (as cited in Edwards, 1994) defined osteopathy in Britain as: "System of diagnosis and treatment whose main emphasis is on conditions affecting the musculoskeletal system. Uses [sic] predominantly gentle manual and manipulative methods of treatment to restore and maintain proper biomechanical functions" (p. 120).

Some British osteopaths regarded this view of the profession as narrow and unnecessarily conservative, but studies within the osteopathic profession demonstrated that manual therapy is the mainstay of British osteopathic practice (BCNO, 1996a). The Snapshot Survey indicated that most osteopaths in the United Kingdom practice almost entirely manual medicine, although the types of manual technique used vary throughout the region (GCRO, 1994).

The osteopathic profession has been unable to agree on a definition of osteopathy. For the purposes of legislation, definitions have been omitted, restricting only the use of the title "osteopath", and effectively allowing freedom in practice. It appears, however, that neither behaviour in practice, nor osteopathic education in Britain, have changed since legislation.

2.6 Overview

In the century of its existence, osteopathy is a profession that has largely failed at forming an identity. Currently there is confusion, and much debate, as to what constitutes osteopathy. In some regions, osteopaths have made considerable move towards professional unity, but these transitions have not always been smooth. Based on the understanding that different styles of osteopathic practice do exist around the world, this study was an attempt to document and describe the global breadth of osteopathy.

Historically, graduating osteopaths were awarded D.O., meaning Doctor of Osteopathy if training was undertaken in the USA, and Diploma of Osteopathy if educated elsewhere (Ward, 1994b; Edwards, 1994). Currently, however, the length of accredited osteopathic training varies between four and six years full time, or two and seven years part time and leads to a range of awards (Caprossi, 1996; Chaille, 1996; Druelle, 1996; Lucas, 1996; Singer, 1995; Standen, 1996; Sturges, 1996; Takagi, 1996). Thus, the

osteopathic profession presently consists of practitioners holding various academic awards and trained in a variety of practices.

It is the opinion of several osteopathic educators that education is a powerful influence upon the nature of practice, particularly in the years soon after graduation (Gevitz, 1994; Lindley-Jones, 1994; Reich, 1994; Shulbrook, Solomon, & Ross-Lee, 1994; Takagi, 1996; Ward, 1994a). The American Osteopathic Association, Australasian Joint Education Committee (JEC), and GCRO (United Kingdom) have each published competency standards outlining the skills expected of an osteopath upon graduation (Hayes, 1994; JEC, 1995a, 1995b; Standen, 1996). Developing such competencies was a difficult task (Fielding & Sharp, 1995), and there has not been any attempt to date to determine whether these competencies actually equate with behaviour in practice. Thus, there is global uncertainty, regarding both the practice of osteopathy and associated education.

This project resulted in a Worldwide Sourcebook of Osteopathy (Cameron, 1999). This sourcebook will be of assistance to a profession that currently is struggling with issues of identity and scope of practice. It is unrealistic to imagine that the osteopathic profession will become globally homogenous. Use of a Worldwide Sourcebook of Osteopathy may promote, however, increased understanding of the training and workplace behaviour of osteopaths around the world, and provide practitioners and educators with additional information for developing the osteopathic profession in their own region.

2.7 Aims of the Study

2.7.1 General.

To investigate, document, and describe, the breadth and diversity of osteopathic education and practice worldwide.

2.7.2 Specific.

To develop a Worldwide Sourcebook of Osteopathy as a resource for the osteopathic profession.

To compare osteopathic education with actual osteopathic practices.

CHAPTER 3

Methodology

3.1 Definitions

In this study, an osteopath, or osteopathic physician, was considered to be a health care practitioner using the title of "osteopath," and holding any formal tertiary academic qualification in osteopathy, or government registration as an osteopath, or both. Practitioners holding no formal qualification, but registered under a grandfather clause were also included in this definition. In locations where registration of practitioners was not required by law, persons using the title were included in this study only if they held tertiary academic qualifications.

College of Osteopathic Medicine (COM) is used throughout this thesis to refer to any tertiary institution, college, or university engaged in the training of osteopaths. COMs may be classified into three categories: those (a) accredited by external organisations such as government registration boards, (b) associated with professional organisations or interest groups, or (c) totally independent. This study was limited to the first two classifications only, because accredited and associated institutions were required to release data regarding their educational practices. All known osteopathic institutions, however, are listed in the Worldwide Sourcebook of Osteopathy (see Appendix F).

3.2 Participants

There were two completely separate samples contracted. First, principals ($N = 37$) of accredited COMs currently training osteopaths received the finalised questionnaire Q1, and an appropriate cover-note. Second, a random sample, stratified according to gender, education, and geographical location of practicing osteopaths ($n = 100$ per region, $N = 500$), received the finalised questionnaire Q2, and an appropriate cover-note.

3.3 Measures

Report form R1 was a checklist designed to allow appraisal of environmental features of clinical education sites (see Appendix A). It was essentially a reproduction of the Rules for Education Required for Prospective Members of the GCRO (GCRO, 1984). This checklist was found to be comparable in all areas of clinical education with Volume 1: Guidelines for Accreditation of Chiropractic and Osteopathic Courses and Volume 2: Assessment Procedures for Accreditation of Chiropractic and Osteopathic Courses developed by the Australasian Joint Education Committee (JEC) for Accrediting Chiropractic and Osteopathic Courses (JEC, 1995a, 1995b). Thus, report R1 was used to record information currently regarded by the British and Australasian osteopathic professions to be important in the provision of clinical education. Each item listed on R1 could be graded in one of four categories; excellent (E), satisfactory (S), barely adequate (BA), or inadequate (I). Guidelines from both the JEC and the GCRO were used to support this grading.

For example, with regard to the item "availability of toilet facilities," a grading of E was given if consulting rooms had ensuites. A grade of S was given if toilets were available on the same floor level within the clinic building, and there was at least one toilet for every ten consultation rooms. A grade of BA was given if toilets were available on the same floor level but outside of the clinic building, or if there was one toilet for every 11 to 15 consultation rooms. A grade of I was given if toilets were available outside of the clinic building, on another floor level, or if there was a queue of patients waiting for toilet access.

Questionnaires Q1 and Q2 were developed using documents, from all regions under investigation, regarding the practice of osteopathy and the current tertiary education provided within the regions (AOA, 1994; Caprossi, 1996; Druelle, 1996; Edwards, 1994; Fuhrmann, 1996; GCRO, 1994; GCRO, 1996; Hamerlinck, 1996; Hawkins & O'Neill, 1990; Meyer,

1994; Singer, 1995; Sturges, 1996; Takagi, 1996). Osteopathic practice was divided into 31 skills or activities. No value judgement was made of these skills, and they were listed in alphabetical order in both questionnaires.

Questionnaire Q1 regarding osteopathic education was completed by principals of currently active COMs. In the first part of Q1, numerical data about the student population was requested (e.g., total number of students in each year level). In the second part of Q1, principal osteopathic educators were asked to identify which of the above mentioned skills were currently taught to osteopathic students enroled in the COM under question. Public domain printed material produced by each COM (e.g., prospectus, course outline, promotional brochures) was also requested as part of questionnaire Q1 (see Appendix F).

Questionnaire Q2 regarding the individual's osteopathic education and workplace behaviour, was completed by practicing osteopaths (see Appendix F). Practitioners were asked to identify which of these skills they had been trained in during their osteopathic education, and which of the same skills and activities they currently practice in their role as an osteopath. Practitioners were also asked to identify any skills learned in post-registration training, so as to exclude continuing professional development as a confounding factor (see the footnotes on tables in the Results section and Table 4.13).

As a part of questionnaire development, Q1 and Q2 were piloted with several practicing osteopaths and osteopathic educators, experts in the field, representative of each geographical region under study. The questionnaire design was then modified according to feedback received prior to distribution to the sample subgroups.

All questionnaires (Q1 and Q2) for use in French Canada and French speaking Europe were translated into French. Translation into other languages was not necessary because the majority of osteopaths practicing in Europe were fluent in English and used English as the

medium for their osteopathic education (Lucas, 1996; Rommeveaux, 1996). Translation was two way: into French, and then from French back into English, to ensure that vital meaning was not lost in translation. Two translators, both of whom were osteopathic students and native French speakers, made themselves available for this task.

3.4 Procedures

Initial review of the osteopathic population globally indicated that 98% of osteopaths live and work in the United States of America. Osteopathic practice in the USA is, however, remarkably different from that conducted elsewhere. In order to avoid marked weighting of results, I chose to divide the global population of osteopaths into five subgroups based on the population density of osteopaths and the type of osteopathic training provided within each broad geographical region (see Figure 1.1).

From each subgroup, I selected a random sample of registered osteopaths, stratified according to gender, educational background, and population distribution within that region. (In the United States of America, 80% of osteopaths are male, 50% work in family or general practice, 14% trained at the Kirksville College of Osteopathic Medicine or predecessor colleges, and 13% live and work in Michigan. These strata within the profession were represented in the sample.) Telephone books and directories published by the various osteopathic registers provided mailing addresses for the sample. All mailing lists and the corresponding questionnaires were coded with an alphanumeric label to allow identification yet protect the personal details of participants in the event that questionnaires became lost in the post.

Principals of all accredited, currently active COMs were sent a cover-letter asking that they provide a copy of the school's prospectus, course outline, and most recent annual report and complete the enclosed questionnaire (Q1) regarding educational practices, regardless of

whether the institution had graduates in the market place. All non-respondents received a second copy of Q1 and an appropriate cover-letter approximately three months after the initial contact. Questionnaire Q1 was initially mailed to the principles of 34 COMs, taking into account all the accredited or associated institutions training osteopaths around the world at that time. Before the Q1 stage of data collection was complete, three new COMs commenced education of osteopaths or moved through an accreditation process that allowed them to be included in the definition of COM required for this project. The mailing list for Q1 therefore expanded to 37 COMs.

A seven-week international study tour was spent making on-site visits to 18 COMs (see Appendix D for itinerary). This tour was undertaken by the investigator to allow on-site reporting of clinical education facilities (R1).

Questionnaire Q2 was distributed to a random, stratified, sample of 100 osteopaths in each of the regions of Australasia, Europe, the United Kingdom, and the United States. Questionnaires were also distributed to 22 osteopaths in Canada; this sample comprised every non-retired osteopath listed in the professional association directories available at the time of the study.

Data collection commenced November 1996 with the study tour. Mailing of questionnaires was staggered over a 12 month period. To improve return rate, mailing of questionnaires was repeated, to non-respondents only, three months after the first mailing. Questionniares were returned directly to Australia by participants. Due to the international breadth of the project, reply paid envelopes were provided for Australian participants only. Data collection concluded at the end of January 1998.

3.5 Data Analysis and Description

Data from the returned questionnaires was coded and analysed using Microsoft Excel

5.0 software. Tables and bar graphs were produced to describe frequency of activities amongst the various osteopathic subgroups and the overlap of practice with education.

Closeness of fit between education and practice is documented in Tables 4.6 to 4.11. The data from Q1 and the printed materials sent from the COMs were also used to produce a Worldwide Sourcebook of Osteopathy (Cameron, 1999), which is indexed by location.

When collating information from public domain sources to develop the Worldwide Sourcebook of Osteopathy, I came across references to 63 institutions for osteopathic education. Of these schools, 60 currently engage in osteopathic education, one closed at the end of 1998, and the other two never offered instruction to students. 37 are accredited or associated institutions training osteopaths and therefore met the definition of COM that allowed inclusion in this study. The remaining 23 schools are independent, and do not regularly report to an accrediting body. They were not included in data collection for questionnaire Q1, but are listed in the Worldwide Sourcebook of Osteopathy (see Appendix F).

Each entry in the sourcebook provides information about the practice and education of osteopaths in a given location, including descriptions of (a) current osteopathic practice, including specialties where necessary, (b) all accredited COMs, and (c) legislation governing osteopathic education and practice. A separate entry for each COM provides (a) the name of the institution and a mailing address, (b) telephone and facsimile numbers, (c) email and world wide web addresses where available, (d) entrance requirements, (e) an outline of the application process (e.g., required to attend an interview, must sit MCAT), (f) a description of the course structure, content, and contact hours, and (g) travel information for visitors.

CHAPTER 4

Results

4.1 Report form R1

I completed report form R1 at 22 clinical training sites connected with the 18 COMs visited during a seven-week study tour (October to December 1996). Two of the European colleges visited did not provide any supervised clinical training for students, but expected students to gain suitable experience from their ongoing work as physiotherapists. Section 1 of report form R1 was completed regarding these two COMs, but Section 2 was not. In Section 2, features of clinic organisation and management were assessed as excellent (E), satisfactory (S), barely adequate (BA), or inadequate (I). Data from these report forms are presented in Tables 4.1 and 4.2.

Table 4.1: Section 1 – Infrastructure at 18 COM (22 clinical sites).

Facility type	On site	Off site	Not available
Hospital – inpatient care	3	4	15
Hospital – outpatient care	3	1	18
Ambulatory care clinic	18	3	1
District / Community based care	4	4	14
House calls	Not applicable	0	22

Note. Multiple types of clinical facilities may operate from the same location.

Table 4.2: Section 2 – Clinic Organisation and Management at 16 COMs (20 clinical sites).

Feature	E	S	BA	I
Number of rooms with respect to patient numbers	16	2	2	0
Ease of access for patients	10	8	2	0
Cleanliness / hygiene of rooms	12	7	1	0
Privacy of rooms	8	12	0	0
Decoration of rooms	6	12	2	0
Temperature of rooms	11	9	0	0
Availability of toilet facilities	5	13	2	0
Clinical laboratory services	4	10	6	0
Availability of radiographic services	1	17	2	0
Discussion rooms for tutoring	12	5	3	0
Quality and currency of clinical equipment	12	8	0	0
Variety of clinical equipment	7	11	2	0
Availability of clinical equipment to students	8	11	1	0

	E	S	BA	I
Booking and reception records	11	9	0	0
Accuracy and currency of case records	10	10	0	0
Security and confidentiality of case records	12	6	2	0
Filing and cross referencing of case records	10	10	0	0
Letters of referral	6	11	2	1
Requests for additional tests	5	12	1	2
Liaison between staff, students, and tutors	9	9	0	2

4.2 Questionnaire Q1

Table 4.3: Return Rate for Questionnaire Q1.

Questionnaires sent out.	37
Address unknown.	0
No reply.	1
Questionnaire not returned, but public domain information provided.	26
Questionnaire returned without public domain information.	1
Questionnaire returned completed with public domain information attached.	9

The return rate for Q1, therefore, may be interpreted in two ways. The return rate for questionnaire Q1 was poor at 27%, but much of the information requested in this questionnaire was also available in public domain documents (e.g., prospectuses, annual reports). Some participants chose only to provide this information, or to direct me to their world wide web sites.

The information in Table 4.4 below was drawn from several sources, including Q1 and publically available documents produced by COMs. It is an overview of the current state of osteopathic education and practice according to the regional breakdown used in this study. The challenges listed in the last column of Table 4.4 were those identified by Q1 respondents. Additional challenges for the future of the osteopathic profession world wide are explored in the discussion section of this thesis.

Table 4.4: Key Features of Osteopathic Education and Practice by Region.

	Registration	Qualifications	Education	Challenges
Australasia	Statutory registration in Australia only.	Bachelor of Applied Science, Bachelor of Osteopathic Science. Bachelor of Science, Master of Health Science.	University system. Undergraduate entry. 5 years full time. Growing research base.	Registration in NZ, SE Asia & Pacific.
Canada	USA D.O.s – all provinces. Canadian D.O.s – Quebec and Ontario only.	Doctorate of Osteopathy in Manual Practice.	Private colleges. Postgraduate entry. 6 years part time. Research assessed only by osteopaths.	Statutory registration in all provinces.
Europe	None. (Some progress in Norway, Spain, Greece and Belgium.)	European Diploma of Osteopathy.	Private colleges. Undergraduate and postgraduate entry. 5 years full time, or 6 years part time. Research assessed only by osteopaths.	Professional unity. Statutory registration.
United Kingdom	Osteopaths Act 1993, in progress.	Diploma of Osteopathy. Bachelor of Science (B.Sc.). B.Sc. (Honours). Member of the London College of Osteopathic Medicine (MLCOM).	Private colleges with university validations. Undergraduate and postgraduate entry. 4 years full time, or 3-5 years part time. Research components in most programmes.	Professional unity. Completion of statutory registration.
United States of America	USA D.O.s – full medical practice in all states. Other osteopaths – limited licensure, varies between states.	Doctor of Osteopathy. Doctor of Osteopathic Medicine.	University system. Postgraduate entry. 4 years full time. Research additional to pre-professional training.	Identity in relation to medical doctors. Future role of OMM.

All the information gathered on COMs included in this study has been collated in the Worldwide Sourcebook of Osteopathy (see Appendix F). The Worldwide Sourcebook of Osteopathy also contains information on osteopathic colleges not included in this study, and countries where osteopaths are known to practice.

4.3 Questionnaire Q2

The numbers of returns of Q2 for all reasons, the effective return rate, and the male:female ratios for each region, are presented in Tables 4.5 and 4.6. In some states of Australia, osteopaths are registered under the same act as chiropractors, and not all the lists provided by the registration boards allow practitioners registered as osteopaths to be distinguished from those registered as chiropractors. Because some Australian colleges trained both chiropractors and osteopaths, academic notes included in the registration lists were of limited assistance. The otherwise "excluded category" is particularly large for Australasia because some questionnaires were inadvertently mailed to chiropractors. Those chiropractors who identified themselves following the first mailing were removed from the sample and replaced with another randomly selected practitioner of the same gender, geographical region (i.e., state), and college of training. Of the ten respondents in the "otherwise excluded" category, eight were registered as chiropractors, and two were retired from practice.

Table 4.5: Return Data for Questionnaire Q2 in All Regions.

Region	Total actual returns	Address unknown	Otherwise excluded	Total useful responses	M:F
Australasia	56	10	10	36	2:1
Canada	9	2	0	7	6:1
Europe	49	11	0	38	9:1
UK	32	1	1	30	2:3
USA	35	8	0	27	9:1
Overall	181	32	11	138	3:1

Note. See Appendix E for composite data.

Table 4.6: Return Rates for Questionnaire Q2 in All Regions.

Region	Send out	Exclusions	Adjusted send out	Total useful responses	Effective return rate (%)
Australasia	100	20	80	36	45
Canada	22	2	20	7	35
Europe	100	11	89	38	43
UK	100	2	98	30	31
USA	100	8	92	27	29
Overall	422	43	379	138	36

Note. See Appendix E for composite data.

The goodness of fit between osteopathic education and actual practice in all regions and overall are presented in Tables 4.7 to 4.12. Of particular interest are the columns that represent incongruence between education and practice (i.e., "received education but do not use in practice," and "did not receive education but use in practice").

Table 4.7: Closeness of Fit Between Osteopathic Education and Practice in Australasia.

	Congruence		Incongruence	
Of the 36 useful responses, n respondents…	Received education, and use in practice.	Did not receive education, and do not use in practice.	Received education, but do not use in practice.	Did not receive education, but use in practice.
Acupuncture	3	31	0	2
Anaesth – local	1	35	0	0
Anaesth – general	0	35	0	1
Deliver infants	2	30	4	0
Herbal medicine	4	35	1	0
Homeopathy	3	31	2	0
Laboratory tests	3	29	5	0
Manipulation (HVLA)	32	2	2	0
Muscle Energy	27	8	0	1
Direct myofascial	28	1	7	0
Indirect myofascial	25	8	3	0
Visceral	22	13	0	1
Cranial / IVM	21	13	2	0
Other OMM	7	29	0	0
Injections – licence	1	35	0	0
Injections – use	3	30	2	0
Physical exam	30	1	3	2
Radiography	1	33	2	0
Radiology	21	8	7	0
Referrals	13	6	0	17
Research	7	28	0	1
Prescribe – licence	0	35	0	1
Prescribe – use	1	34	0	1
Surgery – local	1	35	0	0
Surgery – O.R.	1	35	0	0
Teach osteopaths	5	23	0	7
Teach others	2	28	0	5
Lecturer	2	30	0	4
Tutor	3	32	0	1
Clinical tutor	3	28	0	4
Postgrad teacher	1	34	0	1

Note. See Appendix E for composite data.

Table 4.8: Closeness of Fit Between Osteopathic Education and Practice in Canada.

	Congruence		Incongruence	
Of the 7 useful responses, n respondents…	Received education, and use in practice.	Did not receive education, and do not use in practice.	Received education, but do not use in practice.	Did not receive education, but use in practice.
Acupuncture	0	7	0	0
Anaesth – local	1	5	1	0
Anaesth – general	0	5	2	0
Deliver infants	0	2	5	0
Herbal medicine	0	7	0	0
Homeopathy	0	7	0	0
Laboratory tests	0	2	5	0
Manipulation (HVLA)	7	0	0	0
Muscle Energy	4	3	0	0
Direct myofascial	6	0	0	1
Indirect myofascial	5	2	0	0
Visceral	3	2	2	0
Cranial / IVM	5	2	0	0
Other OMM	0	5	0	2
Injections – licence	1	2	4	0
Injections – use	0	2	5	0
Physical exam	4	1	1	1†
Radiography	0	5	2	0
Radiology	4	2	0	1†
Referrals	3	1	0	3†
Research	1	5	0	1†
Prescribe – licence	2	1	4	0
Prescribe – use	1	3	3	0
Surgery – local	1	4	2	0
Surgery – O.R.	0	3	4	0
Teach osteopaths	2	4	1	0
Teach others	0	5	2	0
Lecturer	1	5	1	0
Tutor	1	5	1	0
Clinical tutor	0	6	0	1
Postgrad teacher	0	6	1	0

Note. See Appendix E for composite data.

† One practitioner had trained in medicine prior to training as an osteopath, and used in practice several skills taught in medical education that were subsequently not included in osteopathic training.

Table 4.9: Closeness of Fit Between Osteopathic Education and Practice in Europe.

	Congruence		Incongruence	
Of the 38 useful responses, n respondents...	Received education, and use in practice.	Did not receive education, and do not use in practice.	Received education, but do not use in practice.	Did not receive education, but use in practice.
Acupuncture	5*	33	0	0
Anaesth – local	0	38	0	0
Anaesth – general	0	38	0	0
Deliver infants	0	36	2	0
Herbal medicine	4*	34	0	0
Homeopathy	3	34	0	1
Laboratory tests	1	33	4	0
Manipulation (HVLA)	34	3	0	1
Muscle Energy	32	5	1	0
Direct myofascial	29	6	3	0
Indirect myofascial	32	4	0	2
Visceral	34	2	0	2
Cranial / IVM	32	3	0	3
Other OMM	10	23	0	5
Injections – licence	0	37	1	0
Injections – use	0	37	1	0
Physical exam	21	16	0	1
Radiography	0	38	0	0
Radiology	20	13	5	0
Referrals	7	21	0	10
Research	3	35	0	0
Prescribe – licence	0	35	3	0
Prescribe – use	1	35	2	0
Surgery – local	0	38	0	0
Surgery – O.R.	0	37	0	1
Teach osteopaths	3	21	0	14
Teach others	0	37	0	1
Lecturer	1	25	0	12
Tutor	1	31	0	6
Clinical tutor	1	34	0	3
Postgrad teacher	0	31	0	7

Note. See Appendix E for composite data.
* This figure includes some osteopaths who currently practice this skill, but did not do so until they had completed postgraduate training.

Table 4.10: Closeness of Fit Between Osteopathic Education and Practice in the United Kingdom.

	Congruence		Incongruence	
Of the 30 useful responses, n respondents...	Received education, and use in practice.	Did not receive education, and do not use in practice.	Received education, but do not use in practice.	Did not receive education, but use in practice.
Acupuncture	2*	28	0	0
Anaesth – local	0	30	0	0
Anaesth – general	0	30	0	0
Deliver infants	0	30	0	0
Herbal medicine	1*	28	0	1
Homeopathy	0	27	0	3
Laboratory tests	2	21	7	0
Manipulation (HVLA)	27	1	2	0
Muscle Energy	22	6	2	0
Direct myofascial	26	3	1	0
Indirect myofascial	19	5	6	0
Visceral	10	12	8	0
Cranial / IVM	20	9	0	1
Other OMM	3	27	0	0
Injections – licence	0	29	0	1
Injections – use	1	29	0	0
Physical exam	27	1	2	0
Radiography	0	29	1	0
Radiology	10	6	14	0
Referrals	11	2	0	17
Research	4	25	0	1
Prescribe – licence	0	30	0	0
Prescribe – use	0	29	0	1
Surgery – local	1	29	0	0
Surgery – O.R.	0	29	1	0
Teach osteopaths	1	26	0	3
Teach others	0	25	0	5
Lecturer	0	27	0	3
Tutor	0	26	0	4
Clinical tutor	0	29	0	1
Postgrad teacher	0	28	0	2

Note. See Appendix E for composite data.

* This figure represents those osteopaths who currently practice this skill, but did not do so until they had completed postgraduate training.

Table 4.11: Closeness of Fit Between Osteopathic Education and Practice in the United States of America.

	Congruence		Incongruence	
Of the 27 useful responses, n respondents…	Received education, and use in practice.	Did not receive education, and do not use in practice.	Received education, but do not use in practice.	Did not receive education, but use in practice.
Acupuncture	0	27	0	0
Anaesth – local	12	7	8	0
Anaesth – general	4	17	6	0
Deliver infants	3	5	19	0
Herbal medicine	1	26	0	0
Homeopathy	0	26	1	0
Laboratory tests	11	4	12	0
Manipulation (HVLA)	13	3	11	0
Muscle Energy	15	3	9	0
Direct myofascial	13	2	12	0
Indirect myofascial	10	6	11	0
Visceral	2	22	3	0
Cranial / IVM	6	14	7	0
Other OMM	0	27	0	0
Injections – licence	18	6	3	0
Injections – use	17	9	1	0
Physical exam	19	1	7	0
Radiography	3	17	7	0
Radiology	16	4	7	0
Referrals	17	7	0	3
Research	5	16	4	2
Prescribe – licence	17	9	0	1
Prescribe – use	16	10	1	0
Surgery – local	6	14	7	0
Surgery – O.R.	10	13	10	0
Teach osteopaths	16	10	0	1
Teach others	13	10	0	4
Lecturer	11	15	0	1
Tutor	5	17	5	0
Clinical tutor	13	9	0	5
Postgrad teacher	7	19	1	0

Note. See Appendix E for composite data.

Table 4.12: Closeness of Fit Between Osteopathic Education and Practice Overall.

	Congruence		Incongruence	
Of the 138 useful responses, n respondents...	Received education, and use in practice.	Did not receive education, and do not use in practice.	Received education, but do not use in practice.	Did not receive education, but use in practice.
Acupuncture	8	126	0	4
Anaesth – local	14	115	9	0
Anaesth – general	4	125	8	1
Deliver infants	5	103	30	0
Herbal medicine	8	126	1	3
Homeopathy	6	125	3	4
Laboratory tests	17	88	33	0
Manipulation (HVLA)	113	9	15	1
Muscle Energy	100	25	12	1
Direct myofascial	102	12	23	1
Indirect myofascial	91	25	20	2
Visceral	71	51	13	3
Cranial / IVM	84	41	9	3
Other OMM	20	111	0	7
Injections – licence	20	109	8	1
Injections – use	21	108	9	0
Physical exam	103	24	10	1
Radiography	4	122	12	0
Radiology	71	33	33	1
Referrals	51	37	0	50
Research	20	110	4	4
Prescribe – licence	18	110	8	2
Prescribe – use	19	112	6	1
Surgery – local	9	120	9	0
Surgery – O.R.	5	117	15	1
Teach osteopaths	27	85	1	25
Teach others	15	106	2	15
Lecturer	15	102	1	20
Tutor	10	111	6	11
Clinical tutor	17	107	0	14
Postgrad teacher	8	118	2	10

Note. See Appendix E for composite data.

The effects of postgraduate education and continuing professional training on the definition of osteopathic practice used in this study, are presented in Table 4.13. Many osteopaths (n = 66) had completed some post-registration education, but in most cases (n =

59) this training did not provide practitioners with any of the 31 skills under investigation, and was not considered to have significantly altered the closeness of fit between pre-professional training and actual practice.

Table 4.13: Post-education Data.

	Hold postgraduate qualifications	Hold postgraduate qualifications that influenced this study	How did the various types of postgraduate training influence this study, or not?
Australasia	20 of 36 respondents (56%)	Nil.	Most respondents completed postgraduate training to refine skills learned in pre-professional training. Some respondents completed postgraduate training in non-healthcare areas.
Canada	4 out of 7 respondents (57%)	Nil.	All respondents completed postgraduate training to refine skills learned in pre-professional training. 1 practitioner had trained in medicine prior to training as an osteopath, and used in practice several skills taught in medical education that were subsequently not included in osteopathic training.
Europe	12 out of 38 respondents (32%)	4	1 practitioner completed postgraduate training in herbal medicine, and 3 practitioners completed postgraduate training in acupuncture. They subsequently use these skills in practice.
UK	9 out of 30 respondents (30%)	3	1 practitioner completed postgraduate training in herbal medicine, and 2 practitioners completed postgraduate training in acupuncture. They subsequently use these skills in practice.
USA	21 out of 27 respondents (78%)	Nil.	All 21 respondents had postgraduate qualifications to refine skills learned in pre-professional training.
Overall	66 out of 138 respondents (48%)	7	The vast majority of postgraduate education completed by respondents was continuing professional development (e.g., a refresher course in osteopathic manual techniques). Some respondents completed postgraduate training in non-healthcare areas (e.g, business management).

CHAPTER 5

Discussion

5.1 Introduction

The purpose of this project was to record and describe the osteopathic profession in its present form to help the profession explore and explain the intrinsically linked issues of identity and breadth of practice. Particularly, I chose to compare practitioners' educational profiles with their workplace behaviours, in order to determine whether osteopathic colleges had prepared them for the tasks they now perform. Connected to educational profiles were the on-site visits to judge, at least by Australian osteopathic standards, the quality of 20 clinical training facilities around the world. Trends emerged, both internationally, and within each region, identifying future challenges for osteopathic educators and practitioners.

5.1.1 Return rates.

The mean return rate for Q2 obtained in this project (36%) was low but acceptable. In previous studies of professional training in other service delivery fields (e.g., sport psychology), similar return rates were found (Andersen, Van Raalte, & Brewer, 1994). The worldwide breadth of investigation probably contributed to the low return rate. Reply paid envelopes were provided for Australian participants. Because of limited financial support, I was unable to provide international reply paid slips to encourage returns, and therefore, relied on the goodwill of the participants. International airmail is considerably more expensive than local post, and may have been bothersome for some participants, requiring that the letter be weighed before posting.

Regional effective return rates for Q2 ranged between 29% for the USA and 45% for Australasia (see Table 4.6). Babbie (1986) argued that a demonstrated lack of response bias

was of greater importance than a high response rate. I will consider issues of response rate and response bias simultaneously for each region.

It is of no surprise that the return rate was greatest in Australasia because the study was conducted from Australia and reply paid envelopes were provided to Australian participants. Financial support for this project came from the Australian and New Zealand Fund for Osteopathic Research (ANZFOR). Australasian osteopaths may have a vested interest in supporting research undertaken in, and paid for by, their region.

There was no gender response bias in the Australasian sample. The ratio of responses from males to females was the same as in the registration lists and mailing list (M:F = 2:1). The sample was somewhat over-representative of Victorian osteopaths, and under-representative of osteopaths in NSW, indicating some regional response bias. Nineteen percent of replies were from Victorian osteopaths although they constituted 12% of the mailing list for this region, and 22% of replies were from osteopaths in NSW although they constituted 27% of the mailing list. This response bias may be a product of my own registration and activity as an osteopath in Victoria: I am personally known to all Victorian respondents.

The second highest return rate for Q2, 43% was obtained from Europe. More useful responses were received from Europe than from any other region. The mailing list for Europe was stratified according to population distribution. Most European osteopaths (63%) live and work in France, and 26% live and work in Belgium. There was little demonstrable regional response bias in the European sample. Fifty-seven percent of European responses came from osteopaths in France and 24% from osteopaths in Belgium.

There was a gender response bias apparent in the European sample. The ratio of male to female practitioners in the mailing list for Europe was slightly less than 6:1. It was difficult to establish gender stratification in the mailing list for Europe because the registration

documents did not specify practitioners' gender and judgement was based on name. The ratio of male to female practitioners responding was 9:1, and this ratio may be nearer the actual population ratio. During the site visits of osteopathic colleges in Europe I did not meet any female osteopaths.

The return rate for Q2 from Canada was 35%. This return rate was obtained with only seven replies. I strongly question whether the information gleaned from Q2 for this region should reasonably be generalised to the whole Canadian osteopathic profession. There was no apparent response bias for this region, but there was probably considerable bias in the mailing list. It is likely that there are many more than 22 osteopaths practicing in Canada. The Canadian College of Osteopathy (CCO) has been in operation since 1981, and conducts a six-year part-time programme to train osteopaths. There have been graduates from the CCO since 1987, and current class sizes are between 10 and 15 students per year in each of the three college locations. Statutory registration of osteopaths is required in only four Canadian provinces for USA trained osteopaths, and not at all for locally trained practitioners. A voluntary register of Canadian trained osteopaths operates in Québec. The registration lists available to compile a mailing list for Canada were, therefore, very brief, and probably not representative of the breadth of the osteopathic profession in that country.

The effective response rate for Q2 in the UK was 31%. There was a gender response bias, but no regional response bias in the UK sample. The ratio of male to female practitioners was 1:1 in the mailing list and 2:3 amongst respondents. The UK sample contained the largest total number of responses from women, and was the only sample in which the majority of respondents were women. Recently, increasing numbers of women have entered the osteopathic profession in the UK, shifting the male to female ratio from 4:1 in 1986 to 1:1 in 1996. The gender response bias in the UK sample may also, therefore, represent an age bias.

Effective return rate for Q2 was lowest in the USA. Given that osteopathy is almost indistinguishable from medical practice in the USA, the return rate of 29% is reasonable. American doctors are notorious for their busy practice (Payer, 1990), with little time for additional paperwork.

The greatest gender response bias occurred in the USA sample. The male to female ratio was 4:1 in the mailing list for the USA, but 9:1 amongst respondents. The reasons for such a response bias are unclear, and should lead to caution when interpreting Q2 in this region.

5.2 Report form R1

The 18 COMs visited in order to complete R1 were a geographically stratified sample. The results obtained from report form R1 do not represent the entirety of osteopathic clinical education, but give an overview of the breadth and diversity of clinical training opportunities for osteopathic students at accredited COMs.

Twenty clinical sites were administered by 16 of the COMs visited (see Table 4.1). Some of the colleges offered multiple types of clinical training opportunities. Most, however, offered only one type. Around the world osteopathic students were given opportunity to employ and refine their clinical skills in a wide range of settings: hospitals (both with inpatients and outpatients), ambulatory care clinics, and community healthcare centres.

The focus of clinical osteopathic education is primarily the ambulant patient. None of the COMs visited offered opportunities to care for patients in their homes, and less than half offered hospital training of any kind. This educational emphasis largely reflects current osteopathic practice. Approximately half of all osteopaths, most of whom live and work in the USA, practice in primary care settings with ambulant, non-hospitalised patients (Allen, 1995).

Two clinical sites visited in Europe were operated by osteopathic students concurrently working as registered physiotherapists. The two COMs concerned took no responsibility for the daily operation of these clinics, and did not offer supervision to students consulting with patients. There is a legal paradox facing some European osteopathic colleges: that the education of osteopathic students is legal, but the practice of osteopathy is not. This contradictory state of affairs exists in France, Belgium, Luxembourg, and in French territories.

Two questions arise from this situation. Firstly, is it ethical for COMs to educate students to perform tasks they are not legally permitted to undertake? Secondly, how are students to be prepared for clinical practice in countries where COMs are not permitted to provide supported clinical training?

Of the 20 clinical sites assessed using report for R1, most were graded as excellent or satisfactory in the majority of categories (see Table 4.2). Not all countries have identical health practice regulations, and some sites were graded as barely adequate or inadequate in categories that were beyond the control of the college. One site had excellent availability of radiographic services (i.e., radiographic equipment was in the same department), 17 sites had satisfactory access to radiographic services, and two sites had barely adequate access to such services. These two sites were in a country where osteopaths are not permitted to request radiographic services. Of the six sites graded as having barely adequate access to a clinical laboratory, three were in countries where osteopaths are not free to request laboratory tests, and the other three were in countries where to order such tests would incur considerable expense to the patient.

The apparent deficiencies in osteopathic clinical education are partly due to the variety of laws governing osteopathic practice around the world. The governance of osteopathic education and practice is not globally standardised, and is unlikely to become so. It may not be

appropriate to use the same criteria to assess the clinical training provision of COMs in the USA as in Europe. Future assessment of clinic organisation and management could be regional, and take account of local restrictions on osteopathic practice.

Some aspects of clinic organisation and management are not dependant upon regional laws. Patients may reasonably expect that they will be able to access the consulting room with ease, that the consulting room will be clean, and that their personal records will be treated as confidential. Unfortunately, not all sites were graded as satisfactory or better with regard to these three items.

The confidentiality of records is a complex issue in an educational setting because the needs of patients and the educational needs of students may conflict. The patient's right to confidentiality must be respected, but the collection of real clinical data is valuable teaching resource. To limit discussion of a patient's presentation to only those students consulting with that patient inhibits the capacity to teach many from the experience of one. To allow discussion of a patient's details in situations where students gather might result in a breech of confidentiality that offends or harms the patient.

Six sites received a satisfactory grade and two sites were graded as barely adequate with regard to the security and confidentiality of case records. Twelve sites were assessed as excellent in this category because the following general procedures were observed: (a) case records were stored at the clinical site, (b) students were not permitted to remove case records from the clinical site, (c) patients were informed that the site was a teaching facility, (d) patients gave consent for their records to be used as an educational resource, (e) access to case records was restricted to enrolled students and clinical staff only, (f) classroom discussion of patients was undertaken in a fashion that did not allow the patient to be identified (e.g., "a 50-year old Caucasian male..."), and (g) discussion of patients was not permitted in social areas

(e.g., cafeteria, locker room). In the USA, some clinical sites required that upon admission, all patients be assigned an alphanumeric code. Coding served two purposes: it allowed patients to be classified according to their illness presentation, and it gave students a simple method for discussing a patient's condition without allowing the patient to be identified.

Problem based learning (PBL) is a popular educational model for clinical training (Henry, Byrne, & Engel, 1997). Patient's presentations are written as cases or problems and distributed to students for analysis. Henry et al. advocated PBL as a method of clinical education (i.e., for medical students) on the grounds that it encouraged life-long learning and critical self-analysis. PBL has recently been adopted by some osteopathic colleges (Carter, 1998; Spencer, 1998). COMs that embrace PBL need strategies to protect patients' confidentiality because patient records become the main resource for student learning.

5.3 Questionnaire Q1: A diverse profession

The variation in osteopathic practice and education between regions is outlined in Table 4.4. Important and obvious regional differences emerged with regard to statutory registration, pre-professional qualifications, and educational provision. These differences are explained in detail in Chapter 2 and justify the use of five regional subgroups in the methodology outlined in Chapter 3.

Q1 respondents identified challenges for the osteopathic profession in their region. Overwhelmingly, these challenges relate to statutory registration of practitioners and overall professional identity. This study was limited to accredited and associated institutions only (see section 3.1), and thus, the challenges of statutory registration and professional identity might only be of concern to osteopathic educators in institutions where some continuing form of validation is required (e.g., re-accreditation every five years).

Chetland (1992) and Edwards (1994) explained that no assumptions could be made about the quality of education offered at non-accredited institutions. The standard of education at independent schools is not necessarily low, but unknown. Course information provided in promotional brochures and on world wide web sites appears similar for both accredited an non-accredited colleges. Students are consumers, who may choose institutions based upon accreditation as well as reputation and education style. In order to cement their place in osteopathic education, it is reasonable to believe that some independent institutions will seek accreditation in the forseeable future.

Conversely, some students "choose" the osteopathic college that selects them (i.e., they attend the college at which they are offered a place). Several non-accredited osteopathic colleges continue to draw adequate student enrolments year after year. Market forces may deem that there is an ongoing place for non-accredited osteopathic colleges with alternative entrance criteria or standards than accredited COMs.

The osteopathic profession is in a state of perpetual change. This study is a "shapshot" view of the osteopathic profession globally, between 1996 and 1999, and some of the data gathered may be obsolete within a few years. The dynamism of the osteopathic profession necessitates that the Worldwide Sourcebook of Osteopathy should be updated at least every two years if it is to be of maximum use.

5.4 Questionnaire Q2: Closeness of fit between education and practice

The closeness of fit between those skills taught during osteopathic education and those skills actually used, is documented by region in Tables 4.6 to 4.11 and overall in Table 4.12. Not all the comparative data reflects current osteopathic education because practitioners were asked to identify which of the listed skills they were taught in their own pre-professional training, and which of the same list of skills they currently practiced. Practitioners were also

asked to list any postgraduate training undertaken, in order to account for broadened skills as a confounding factor.

Fit between education and practice may be congruent or incongruent. If practitioner identified that a skill was taught and they presently use that skill, the fit is congruent. If a skill was not taught, and practitioners do not use that skill in the workplace, then the fit is also congruent. Incongruence occurred when a practitioner indicated that they regularly used in practice a skill that had not been included in their pre-professional training, or when a skill that was included in education was not used in practice. Incongruence between education and practice highlights omissions and overprovisions in osteopathic education.

In every region, with the possible exception of the USA, a major incongruence was that many osteopaths did not receive any training in how to make or respond to referrals, but referred patients in practice. This situation was dramatically true for Australasia with 47% of respondents reporting this incongruence. Because the problem of referral was nearly universal, I will discuss it in the "overall" section (see sections 5.5 and 5.5.1).

5.4.1 Closeness of fit between education and practice in Australasia.

Australasian osteopaths identified a shortfall in teaching skills as part of pre-registration training (see Table 4.7). Three COMs operate in Australia, and a fourth commenced in New Zealand in March 1999 (Penney, 1996; UNITEC, 1998). There must be questions, therefore, of who will teach in these programmes in the future and how well equipped they will be to do so. Wells (1996) argued that the osteopathic profession in Australasia should not even consider starting another undergraduate osteopathic course until action had been taken to address the lack of osteopathic teachers in this region. Wells suggested, therefore, that osteopaths with interest or intention to teach should enrol in postgraduate teacher education, preferably through RMIT University.

The vast majority of universities in the Asia-Pacific region offer postgraduate training in education. Many of these courses are specific for tertiary level education, training students to become lecturers, tutors, demonstrators, examiners, and educators. The graduate certificate and graduate diploma in university teaching and learning, offered at RMIT University are not unique, nor are they specifically tailored to the needs of osteopathic teachers, or even clinical supervisors. Wells provided no justification for her preference for the RMIT programmes, and it may be reasonably assumed that this apparent bias stemmed from her own appointment at RMIT University. It is unlikely that RMIT University's programmes would specifically prepare an osteopathic instructor for the intense personal and clinical types of instruction that occurs in COMs.

Furthermore, Wells (1996) suggested that postgraduate qualifications in teaching would make applicants more desirable to university employers. This contention is questionable and somewhat naive. Universities in Australia receive government funding based partly upon student intake, and partly upon research output and scholarly activity (Department of Employment, Education, Training and Youth Affairs, 1997). Teaching brings only moderate financial rewards, and clinical education, such as that required for osteopathic education, is particularly expensive to administer. Universities, like all other employers, need to be certain that employees will "pay their way." Osteopaths with tertiary qualifications in teaching are unlikely to find ready employers in the university sector unless they have a concomitant commitment to research or other scholarly activity.

5.4.2 Closeness of fit between education and practice in Canada.

Given that there is probably bias inherent in the Canadian sample and that the Canadian sample is particularly small, reports of either congruence or incongruence between education and practice in Canada should be interpreted with caution. Canadian osteopaths identified that their pre-professional training placed greater emphasis on skills of pharmaceutical prescription, surgery, and anaesthetics, than they actually use in practice (see Table 4.8). The incongruence documented in Canada is similar to the educational over-provision reported by USA trained D.O.s. The incongruence between education and practice in Canada may be a product of bias in the mailing list, which contained more than a representative sample of USA trained D.O.s because registration lists were not available for Canadian trained osteopaths.

The osteopathic education programmes currently offered at COMs in Canada are exclusively in manual therapy. Students are physiotherapists and sports therapists. Knowledge of the biological sciences is assumed, and emphasis is placed upon the mastery of manual therapy skills. If a more appropriate mailing list could be devised for this region, I expect the apparent incongruence would be reduced as increased numbers of locally trained osteopaths reported that their education was well suited to their workplace needs.

Incongruence between osteopathic education and practice in Canada may also be a product of the bimodal population of osteopaths in Canada; some are trained in the USA and eligible for full medical licensure (Allen, 1995), and others are trained in Canada as manual therapists (Druelle, 1996). Demographic data provided by the AOA indicates that 41% of USA trained D.O.s residing north of the USA-Canada border are retired, and 38% practice predominantly OMM (Allen, 1995). Thus, practicing Canadian osteopaths are predominantly manual therapists, regardless of pre-professional training.

There is an age division in the Canadian osteopathic population. The average age of USA trained osteopaths practicing in Canada (excluding retirees) is 74.8 years (Allen, 1995). The youngest USA trained osteopaths recorded as currently practicing in Canada was born in 1957. It is astounding that the average age of USA trained osteopaths in Canada is older than the recommended retirement age, and probably occurs because many osteopaths are self-employed and do not retire until they die or become too ill to work.

It is reasonable to assume that the mean age of Canadian trained osteopaths practicing in Canada would be considerably lower that that of USA trained practitioners, although no data are available to verify this. Perhaps the tendency of USA trained D.O.s in Canada to practice manual therapy is a product the system of osteopathic education of the 1930s and 40s, when, prior to full licensure being granted to USA D.O.s, greater emphasis was placed on the role of OMM in osteopathic practice.

5.4.3 Closeness of fit between education and practice in Europe.

European osteopaths are predominantly taught, and practice OMM (see Table 4.9). OMM may be divided into two classes of manual techniques: (a) direct techniques, in which the practitioner approaches a physiological tissue barrier with a direct force (e.g., applying a passive stretch to a shortened muscle), and (b) indirect techniques, in which the practitioner places injured tissues in a position of comfort to reduce stress on that structure (e.g., taping a sprained ankle in an everted position to protect the injured lateral ligaments). Original publications by notable European osteopaths focussed on the indirect types of OMM (Baral & Mercier, 1988; Debroux, 1999), and led to an assumption that direct techniques were not widely practiced in Europe. The data presented in Table 4.9 largely refutes this assumption, indicating that most European osteopaths were taught and practice both direct (i.e., HVLA, muscle energy techniques, direct myofascial techniques) and indirect (i.e., visceral techniques,

cranial techniques, indirect myofascial techniques) osteopathic techniques. Three European osteopaths indicated that they were taught direct myofascial techniques, but did not practice them, and one recorded the same for muscle energy techniques. These figures give little support the contention that direct techniques are less widely practiced in Europe. Conversely, seven practitioners identified that they currently practiced indirect techniques (i.e., visceral techniques, cranial techniques, indirect myofascial techniques) that had not been included in their pre-professional education, nor learned in postgraduate programmes or ongoing professional education. It appears, therefore, that European osteopaths may moderately favour the use of indirect osteopathic techniques in practice, but not to the exclusion of direct techniques. For the most part European osteopathic education appears broad based in terms of OMM, including both direct and indirect techniques.

In completing Q2 practitioners were not asked to identify how often they used a particular skill, simply whether they used that skill at all in their currently osteopathic practice. European osteopaths might use indirect techniques more often than osteopaths in other regions, but because they also use direct techniques some of the time, differences cannot be clearly identified. Researchers using a similar tool to Q2 in the future may wish to add a "frequency of use" scale for each skill (e.g., ratings of "rarely" to "very often" in five point Likert scale).

The assumption that indirect techniques, particularly visceral technqiues, are performed more often by European osteopaths may also be a product of the impact of culture on health care practice. In her text, Medicine and Culture, Payer (1990) discussed cultural preoccupations and argued that cultural medical concerns, and thus, the patient's understanding of bodily function, contribute to the selection of therapy. Payer argued that culture also influences diagnosis and treatment. For example, the French have a cultural

fascination with the liver and gut, evidenced by the frequency with which French doctors examine the liver, take rectal temperatures, and diagnose crise de foie [liver crisis]. A French patient is seven times more likely than an American to receive medication in suppository form. Payer also explained that there is no phrase for "chest pain" in German, forcing the German patient to refer to "heart pain." In 1990, West Germans used about six times the quantity of cardiac drugs per capita as did the French and the British (Payer, 1990). If visceral osteopathy is practiced more widely in Europe, it may be because European patients and practitioners have corresponding cultural expectations of visceral health care.

European osteopaths reported incongruence between education and practice with regard to teaching skills (see Table 4.9). Many European osteopaths (37%) did not receive any training in teaching, but spend a portion of their working time teaching osteopathic students and consider teaching to be part of their role as an osteopath. The incongruence between teaching training and actual teaching may have occurred for the same reasons as in Australasia--a small profession opened more COMs than it had the staff to support. It may also be a response to the complex legal situation in France and Belgium, where the vast majority (89%) of European osteopaths live and work. COMs provide a safety net for French and Belgian practitioners where they may work legally as "teachers". Furthermore, several osteopaths working as teachers in France and Belgium indicated in question 3 of Q2 that they travelled into neighbouring European countries where osteopathy was legal (e.g, Austria, Switzerland) in order to practice but listed their mailing address as the COM in their country of residence. It would be very interesting to observe how many French and Belgian osteopaths would continue to teach if the legal status of osteopathy in Europe were to change.

5.4.4 Closeness of fit between education and practice in the United Kingdom.

British osteopathic education is particularly well matched to workplace need. There were 30 respondents from the U.K., making 930 possible responses for the 31 skills listed (see Table 4.10). Only 44 times did respondents indicate that they were educated in a skill they did not currently use, and 45 times they reported that they used a skill that was not included in their osteopathic education. Only 5% of all possible responses were in incongruent categories, indicating a very close fit.

British osteopathic education at the current and previous Diploma of Osteopathy, Bachelor of Science, and Bachelor of Science (Honours) levels, therefore, represents good value for money in vocational training. British osteopaths have reported that what they learned at college was relevant to workplace need.

Relevance and value for money are not the only criteria against which osteopathic education may be measured. If osteopaths practice everything they have been taught at college, it may indicate that they have been trained well. On the other hand, it may indicate that they have been convinced to adopt ways of work that are unthinking, without reflection or self-analysis (S. Tyreman, personal communication, October 14, 1999). This study was a task-oriented analysis and description of the relationship between osteopathic education practice, and levels of congruence should not be interpreted as a measure of the overall value of osteopathic education in a region.

I have made no attempt to assess whether British osteopathic education fully embraces the espoused educational model in which students are expected to become life-long, self-directed researchers who apply the principles of scientific enquiry to clinical practice (see section 5.5.3) (Tyreman & Edwards, 1997). The British osteopathic profession needs to clarify

what it wants from graduates: scientist-practitioners or skilled employees equipped for specific tasks. Current British osteopathic education appears scientific in name and vocational in style.

The one aspect of osteopathic education identified by British practitioners as taught but not used, was radiology. It is likely that this apparent over-provision in education is a function of the current National Health Service (NHS) guidelines. Osteopaths who are not simultaneously registered as medical practitioners, are not permitted to request radiographs. Patients need to consult with their registered general medical practitioner in order to receive a radiographic request form. Consequently, radiographs are usually interpreted by a radiologist and forwarded to the patient's general practitioner, entirely excluding the osteopath from the practice of radiographic interpretation.

British osteopaths, therefore, may perceive that they use their skills in radiology less than their education should allow. Education has the potential to drive and change practice. If there were a groundswell amongst British osteopaths who desired radiographic requesting rights, and the education of osteopaths could be demonstrated to be adequate to allow safe practice in this regard, it is possible that the osteopaths could lobby to change the present NHS restrictions.

5.4.5 Closeness of fit between education and practice in the United States of America.

In the USA respondents documented incongruence predominantly in terms of over-provision of education. Contrary to the incongruence regarding referral skills in other regions, only three USA practitioners indicated that they were not taught, but used referral skills. A few practitioners identified educational shortfalls in research, and teaching skills, and a single practitioner indicated not having been taught to prescribe medication. Generally speaking, USA trained osteopaths are taught a great deal, but do not use a substantial portion of their training in practice.

Areas of notable educational over-provision were: (a) the delivery of infants, (b) laboratory testing, and (c) surgery, particularly when performed in an operating room rather than a consulting room. There is a distinct shortage of general practitioners (family doctors) in the USA (Payer, 1990). The American patient is more likely than a patient of any other nationality to see a specialist for a routine health problem (e.g, a child is taken to a pediatrician for a routine upper respiratory tract infection. This is a common condition likely, in another country, to be managed by a general practitioner).

Outside of the USA, general practitioners practice primary care, and specialist practitioners practice secondary care, consulting with patients on a referral basis. The relatively low number of general practitioners in the USA has led to the need to use specialists in primary care roles and has prompted debate about which specialties might be considered as primary care. American COMs document their role as the training of American D.O.s for primary care roles (NYCOM, 1995), and therefore provide broad-based training in almost all the skills an American D.O. is likely to require in practice, regardless of subsequent specialist training.

It is likely that American osteopaths documented that their educational provision was greater than their practice need because they over half had moved into specialist areas and no longer used the broad range of skills included in their education. Particularly notable was the number of practitioners taught to deliver infants, who did not do so. In the USA, infants are usually delivered by a midwife or an obstetrician, but rarely by any other type of "primary care" practitioner.

The American public perceive that doctors are able to perform basic surgery, conduct tests, and deliver babies (Payer, 1990). Public perception of what a doctor should be able to do

probably accounts, at least in part, for the continued inclusion of these skills in pre-registration training.

Approximately one-third to two thirds of American osteopaths particularly identified that their training in seven categories of OMM exceeded their practicing requirements. Osteopathic students in the USA received formal training in OMM for an average of four hours per week over a two-year period (approximately 240 hours tuition), and elective clinical rotations in OMM during third and fourth year (NYCOM, 1995). COMs in other regions provide up to 1500 hours formal tuition in OMM (Druelle, 1996; Lason, 1996; Standen, 1996; Sturges, 1996; Takagi, 1996). American osteopaths received less formal training in OMM than their international colleagues, but perceived that this training exceeded their requirements for practice.

It is most likely that this recorded over-provision of OMM training in the USA is actually due to most American osteopaths ($\underline{n}$ = 14,252) working as family physicians (Allen, 1995). American osteopaths have been encouraged to use OMM in all possible clinical settings (Ward, 1996), but at present, many do not. Family practice physicians are usually reimbursed for their services by HMOs. To bill an HMO practitioners must itemise their accounts to detail the specific services provided to the patient. Reimbursement for OMM is comparatively low for the time required to provide this service rather than prescribe medication, etc. Despite Ross-Lee and Weiser's (1994a) view that managed care is opportunity, not a threat, to osteopathic medicine, the logistics of working with HMOs may deter some American osteopaths from using OMM regularly (J. Jerome, personal communication, October 14, 1999).

Why does OMM remain prominent in American COM curricula when many D.O.s do not practice this way? OMM is the only patient-focussed component of curriculum that

differentiates D.O. from M.D. training in the USA (Gevitz, 1995). Studies in osteopathic history, philosophy, and principles also feature in D.O. training, but the ways in which these studies equip graduates are difficult to define and measure. If OMM training were removed from American COM curricula, it would become extremely difficult to justify why there should remain two concurrent types of pre-professional education for physicians. Thus, the prominence of OMM in education may be a matter of survival and identity.

5.5 Overall analysis

5.5.1 What's missing in osteopathic education?

Many practitioners identified they left college not equipped with a given skill used regularly in practice. Overall, 36% of practitioners (n = 50) identified referral skills as an area of educational shortfall (see Table 4.12). USA osteopaths were the best prepared for practice in this regard, only three respondents documented a lack of training to receive or make referrals. British osteopaths graduated least equipped for referral, with only 43% reporting congruence between educational provision and practice requirements.

Referral is not simply telling the patient to see someone else. Referrals may be made in writing, by telephone, or in person. A response to a referral is customary, and may also be given in writing, by telephone, or in person. Referral is communication between practitioners, and therefore, has potential to improve or damage collegial relationships, as well as significantly alter the direction of therapy for the patient concerned. Van Raalte and Andersen (1996) argued that referral is also communication with the patient, and is therefore a therapeutic tool. Explaining the referral process to the patient, detailing why the referral is necessary, and what will happen with the new practitioner are delicate skills.

Jerome (personal communication, October 14, 1999) commented that osteopathic medicine in the USA is a community-based model of health care that frequently involves

D.O.s in family practice referring patients to specialists. Because specialists are often allopathically trained, D.O.s are required to bridge any communication gaps between the two streams of medicine. It is likely that American osteopaths are well trained in referral skills because these skills are essential to their practice.

In their 1994 Snapshot Survey, the General Council and Register of Osteopaths (GCRO, 1994) found that nearly one quarter of all patients attending osteopaths in the United Kingdom are referred to do so by their general medical practitioner. COMs have a responsibility to offer osteopathic education appropriate to the needs of graduates, and this lack of training in referral skills must be redressed.

The provision of teaching skills is another area in which osteopathic education is demonstrably lacking. In each region, several practitioners indicated that they were currently engaged in teaching, but had not been trained for this task during their osteopathic education. Neither had these practitioners undertaken postgraduate teacher education. It is not unusual in tertiary education that teaching staff have no formal training as teachers--teaching is often only a part of the work of the academic.

Good practitioners do not necessarily make good teachers, and it may be appropriate for COMs to move away from employing experienced practitioners as teachers. An alternative may be to establish a "teaching stream" parallel to pre-professional osteopathic education. A teacher-training elective would allow students with an interest in teaching to develop presentation skills and an understanding of teaching and learning methods appropriate to the intense interpersonal nature of osteopathic education.

5.5.2 Over-provision in osteopathic education.

In each region, a few practitioners indicated that their osteopathic education had included training in skills they did not currently use. Overall, 24% of respondents, including

some practitioners from each region (n = 33), identified that laboratory testing received greater emphasis during education than was reflected in practice. Radiology was taught to, but not used by, 33 practitioners (24%), covering the USA, U.K., Canadian, and Australasian regions. Similarly, the delivery of infants was identified as an educational excess by 22% of practitioners (n = 30) in Canada, Europe, Australasia, and the U.S.A combined.

When educational provision exceeds practice need, there is not always cause for concern. Specialisation in osteopathic practice implies that generalist training will provide information for some that will not be used (Allen, 1995). Educational over-provision was most noticeable in the United States. This is probably a function of the breadth of practice rights available to American practitioners. COMs take the responsibility for providing osteopathic education adequate for family practice, but only about half of graduates move into this field of service delivery (Allen, 1995).

Osteopathic education carries a considerable financial burden for students. Annual tuition fees for COMs in the United States approximate $20,000 US, in the United Kingdom £6,000 sterling, and in New Zealand $6,000 NZD, and vary according to the course structure and location (BCNO, 1996a; Midwestern University, 1995; New York College of Osteopathic Medicine [NYCOM], 1995; UNITEC, 1998). The challenge for osteopathic educators is to make pre-professional training relevant, and cost effective, for the majority of graduates, without compromising educational goals.

5.5.3 Scientist-practitioner model.

Osteopathic education is vocation specific training, and historically education of this type occurred outside of the university sector, usually in technical colleges. Vocational training is often pragmatic, well suited to workplace need, equipping students with skills they

will use. Over the past two decades, osteopathic education has moved into the university sector.

University education is often more complex than technical or vocational training. Many university degrees are not vocation specific, and even in those that are, students may gain other desirable skills (e.g., self-analysis, self-directed learning, goal setting) (Oxford Brookes University, 1998). Although graduates might not practice OMM, they may still have learned many useful things during OMM classes, particularly: (a) a greater understanding of surface anatomy, (b) the therapeutic value of touch, and (c) improved palpatory skill. At Western University COM of the Pacific in Los Angeles, the first year class in surface anatomy was recently redesigned to incorporate teaching in OMM to enhance students' understanding of anatomy (Harvey-Melleby, 1996).

The move to university based education has been accompanied by the adoption of the scientist-practitioner model of training. The scientist-practitioner model is often interpreted as equipping student practitioners with research skills, so that they might (a) make evidence based decisions in clinical practice, and (b) contribute to the collective knowledge of the profession (Barlow, Hayes & Nelson, 1984; Sackett, Richardson, Rosenberg & Haynes, 1997). The experience in other service delivery fields (e.g., psychology), however, has been that most graduates do not become active researchers but enter clinical practice.

In 1949, a conference sponsored by the National Institute of Mental Health and the American Psychological Association was conducted in Boulder, Colorado. Representatives from all clinical psychology training programmes active in the USA at that time attended, and made the unanimous recommendation at the end of the conference for the widespread adoption of the scientist-practitioner model in clinical psychology education. Despite educators' support for the scientist-practitioner model, graduating clinicians did little research

in the subsequent five decades. In 1976, Garfield and Kurtz (as cited in Barlow, Hayes, & Nelson, 1984) published a survey of clinical psychologists that indicated most clinicians considered there was too great an emphasis on research training in their curriculum. Barlow (1980) reported that the modal number of original research publications by clinical psychologists was zero.

There has been no attempt to measure whether graduates from scientist-practitioner model training programmes in health care fields engage in evidence based practice any more than their vocationally trained counterparts (Sackett, Richardson, Rosenberg & Haynes, 1997). Third party payors, however, increasingly refuse to pay for unsubstantiated therapies, providing a financial incentive for the scientist-practitioner model. Nikolai Bogduk (1997), a vocal, often critical, observer of manual medicine in Australia, and manager of a large National Health and Medical Research Council (NH&MRC) fund for spinal therapy research, explained the current push to evidence based practice at the 12th International Congress of the Federation Internationale de Medicine Manuelle (FIMM).

> Evidence-based medicine is a growing world-wide movement. It calls for practice to be based on techniques of proven reliability, validity and efficacy. It rejects techniques that have been shown not to have reliability, validity or efficacy. Evidence-based medicine is the yardstick by which the scientific and ethical propriety of medical practice is being measured....Those who pay – insurance companies, governments, even patients, are exercising a right to question whether what they are paying for is worth it....The challenge for manual medicine, therefore, is to determine its reliability, validity and efficacy....Manual medicine should harvest that which works, and capitalise on that, but abandon that which it finds not to work....To insist on retaining the ancient paradigm in full will be the doom of manual medicine. Without evidence, it

> will be left further and further behind in medicine. The choice lies between retaining a secretive guild based on assertion, and adopting scientific method to measure the reliability, validity and efficacy (Bogduk, 1997, p. 52).

In this project, research skills taught were identified as mostly congruent with practice needs. A striking feature of these data was that most osteopaths (n = 110 out of 138 respondents) indicated that they were neither taught, nor currently undertook, research. It must be remembered that data from questionnaire Q2 reflects each practitioner's pre-registration training, some of which occurred at institutions now closed. Bogduk's challenge is to a profession largely without a research culture.

Data from Q1 and public domain sources indicate that research is currently a highly favoured aspect of osteopathic education in all regions. Current osteopathic students take classes in research design and statistics, learn to critique current osteopathic research, and in many COMs, are required to complete research projects of their own (Caprossi, 1996; Druelle, 1996; Lason, 1996; Standen, 1996; Sturges, 1996, Victoria University of Technology, 1997).

The combined Q1 and Q2 data regarding research should be interpreted with some caution. We cannot be certain that the increased time given to research in osteopathic education at present will increase the number of active researchers after graduation. Many therapies used in osteopathic practice, particularly OMM, are untested--the validity, efficacy, and reliability of these techniques are unknown (Bogduk, 1997). The osteopathic profession is in dire need of research in order to practice evidence based service delivery.

In November 1999, the BCNO hosted the inaugural International Conference for Advances in Osteopathic Research (ICAOR99). The recent publication of research supporting OMM in the management of acute low back pain has fuelled patients' interest in the benefits of osteopathic medicine (Andersson, Lucente, Davis, Kappler, Lipton, & Leurgans, 1999).

Clinical research is in its infancy within osteopathy, but is likely to become a more significant aspect of osteopathic education in the future. The benefits of research for the osteopathic profession are substantial; (a) to give osteopaths an understanding of the measurable value of their work, (b) to encourage acceptance of osteopathy in the wider health care system, and (c) to allow patients to make education choices about health care. Concomitant with the development of a research culture must be the maturity of the osteopathic profession to discard those aspects of osteopathic medicine that are demonstrated to be ineffectual.

It remains to be seen whether osteopathic educational institutions will significantly shape future practice through the increased emphasis on research methods in their curricula. An emphasis on research methods is unlikely to shape practice as much as actual osteopathic treatment outcome research. What is desperately needed is not just to teach research methods, but to develop a research culture that examines the efficacy of osteopathic treatment.

5.6 Global trends in osteopathic education and practice

Global trends in osteopathy over the past two decades include: (a) progression towards the highest awardable degree or diploma for any educational programme (Standen, 1996; Sturges, 1996), and (b) continued use of the abbreviation D.O. by practitioners in the field (Lason, 1996; Takagi, 1996; Hamerlinck, 1996; Druelle, 1996; Penney, 1996). As osteopathic colleges become affiliated with universities and elevate the way osteopathic education is conducted and degrees awarded, practicing osteopaths refer to themselves with an outdated abbreviation.

5.6.1 Highest awardable qualification.

Over the past 20 years, COMs in Australia have moved from granting a Diploma of Osteopathy to a Bachelor of Applied Science (awarded between 1986 and 1994 inclusive) (Verbowski, 1990), and then a double Bachelor of Applied Science and Bachelor of

Osteopathic Science (awarded from 1995 to date) (RMIT University, 1997). Two more recently established Australian COMs, Victoria University of Technology and University of Western Sydney, have students undertaking the combined award of Bachelor of Science and Master of Health Science as their pre-professional qualification (Victoria University of Technology, 1997). The first graduates from this form of osteopathic education completed studies in November 1998.

Similar trends have been followed in the United Kingdom, as some COMs moved from awarding a Diploma of Osteopathy to a Bachelor of Science, to Bachelor of Science (Honours) (Standen, 1996). Most American COMs have changed the title of their osteopathic award from Doctor of Osteopathy to Doctor of Osteopathic Medicine (Allen, 1995). This title change was not accompanied by any curriculum change, but clearly linked American osteopaths with American medical doctors rather than with osteopaths outside of the USA.

At first glance the adoption of the highest possible academic award for a given programme might be assumed to be an exercise in academic snobbery. In the absence of considerable changes to course delivery or structure, it is difficult to understand how a programme formerly "worth" a diploma qualification, is now "worth" a bachelor degree with honours.

Tyreman and Edwards (1997) explored this apparent "inflation" with regard to British osteopathic training, and argued that the inclusion of research methods and a dissertation had made former diplomas "bachelor worthy." The flaw in this argument was that research methods and a dissertation were requirements of some British osteopathic courses several years before they were awarded bachelor status. Tyreman and Edwards (1997) implied that it was necessary for osteopathic colleges to include a significant research component in the diploma programmes in order to enter the external validation process of British universities--

the programme needed to be conducted at Bachelor level before any university would move to incorporate the programme.

Fletcher (personal communication, October 14, 1990) argued that research had "always" been a part of British osteopathic eduction, and that Bachelor or Honours level status was a measure of the "maturity" of the institution concerned. The results in Table 4.10 do not support Fletcher's view. Only 4 out of 30 respondents indicated that they were trained in research skills during their own British osteopathic education.

In Australia, the change from awarding osteopathic education as a single bachelor degree to a double bachelor degree followed, rather than preceded, university status. In 1989, the Australian government moved to close the binary system of public tertiary education that had both colleges of advanced education and universities as degree awarding institutions, and replace it with the unified national system (UNS) of universities (Sharma, 1999). Phillip Institute of Technology merged with the Royal Melbourne Institute of Technology, and subsequently became RMIT University.

With the UNS came the progressive introduction of the relative funding model (RFM) of government support for universities. Under this model, all undergraduate courses were classified into one of five clusters, and each cluster given a weighting that would determine government funding to the university per student enrolled in a given course. Medicine, dentistry, veterinary science, and agriculture were all grouped in cluster five, and given the greatest weighting, 2.0. Accounting, administration, law, and economics were grouped in cluster one and weighted 1.0. Nursing and other health programmes were included in cluster 3 with a relative weight of 1.6 (Sharma, 1999). I suggest that the motivation to alter the title of the osteopathic course at RMIT University was to not simply "to bring the osteopathic programme in line with courses in medicine," as the RMIT staff indicated, but also an attempt

to have osteopathy (and chiropractic) included in cluster five. This tactic was not successful. Osteopathic undergraduate courses are grouped with other allied health programmes in cluster three, and funded accordingly.

Funding for postgraduate programmes has also moved to the RFM. There are three clusters for postgraduate coursework programmes, and osteopathy was grouped into cluster two. Postgraduate programmes attracted higher weightings than undergraduate programmes in the same discipline, and this differential weighting scheme may be a reason why the course development committee at Victoria University saw fit to structure the final two years of that osteopathic programme as a coursework masters degree.

Several osteopathic educators have argued that the shift to a higher award advances the osteopathic profession (Standen, 1996; Tyreman & Edwards, 1997), but it should be remembered that there are also significant financial and status benefits. Elevated status of a programme may in turn lead to increased student enrolment, and therefore, financial reward.

5.6.2 Continued use of the abbreviation D.O.

The osteopathic profession consists of practitioners holding a range of academic awards. Since 1892, American osteopathic qualifications have been awarded Doctor of Osteopathy. Canadian osteopathic education has always been awarded Doctorate of Osteopathy: Manual Practice, and European training, the European Diploma of Osteopathy. Until quite recently, British and Australian osteopathic degrees were awarded as Diploma of Osteopathy. Osteopaths in each region abbreviate their qualifications D.O. or colloquially refer to themselves as "a D.O."

Use of the abbreviation D.O. may initially have been an attempt to claim equivalence with the American osteopathic training model, or possibly a push for international professional unity. D.O. no longer accurately reflects the way osteopathic qualifications are awarded in

Australasia or Britain, and its ongoing use has led to considerable confusion. Many osteopaths, particularly in Europe and Canada, refer to themselves in conversation as "a D.O." although this is not strictly representative of their osteopathic qualifications. The American osteopathic profession holds a strong view that there is no equivalent to USA D.O. training offered elsewhere in the world (AAO, 1997). The AAO requires that international affiliate members sign a code of ethics under which they will not give the impression that their osteopathic qualifications are the same as the American osteopathic doctorate.

Obviously, osteopathic education is not the same the world over. It is futile, misleading, and unethical for osteopaths trained outside of the USA to give the impression that their training was the same as an American D.O.'s. Furthermore, American osteopathic pre-professional training includes substantially less training in manual medicine than any other osteopathic qualification.

There are two issues entwined in the continued use of the abbreviation D.O. Is osteopathy a manual medicine? If it is, then the USA model of osteopathic education is not the model to emulate. Does osteopathic practice require the full breadth of medical practice rights? If so, then there are many skills that need to be introduced into osteopathic education in all regions, except the USA, before equivalence with medical training can be reasonably claimed. Osteopaths in the USA remain divided over the value and priority of manual medicine in osteopathic education and practice (Northup, 1987; Still, 1892; Ward, 1996). Osteopaths outside of the USA are unable to clearly define their practice, and disagree over whether they should lobby for increased practice rights (Jamison, 1991a, 1991b; Lucas, 1997; Lusty, 1992; Maslak, 1989; Yeowell Williams, 1999).

Global commonality in osteopathic education and practice is an unrealistic dream. Diversity within education is one feature that contributes to the vibrancy and plasticity of the

osteopathic profession. I suggest that osteopaths refer to themselves as "osteopaths" and abbreviate their qualifications accurately. The osteopathic profession may take considerable steps towards harmony by acknowledging the diversity that exists within osteopathic education, and celebrating the strengths of the same.

5.7 Future challenges

The forseeable future is likely to bring three significant areas of challenge for the osteopathic profession worldwide: that of (a) appropriate, tailored, accredited, affordable, pre-professional education; (b) identity as a distinct profession, different from both medical practitioners and other manual therapists; and (c) increasing involvement with statutory bodies.

5.7.1 Education.

There are at least 60 institutions currently engaged in the training of osteopaths at a pre-professional level (see Appendix F). The style of osteopathic education currently varies between regions. Educators in each region seem proud of the education they offer, and so they make claims of quality. Unfortunately, most of these claims are unsubstantiated--there has been no investigation to determine the most appropriate form of pre-professional education for osteopaths. Furthermore, what is appropriate osteopathic education for one region may not be as appropriate in another region.

It is unreasonable to expect that a globally unified system of osteopathic education will be developed in the near future. It is, therefore, beholden upon osteopathic educators to gain an understanding of the most appropriate form of osteopathic education for their region. Substantial inquiry is likely to be required so that educational changes may be driven by vocational needs and goals for learning, rather than financial or status motives.

Beyond the scope of this thesis, but unable to be ignored in the educational provision of the future, are the numerous institutions offering continuing professional education for osteopaths. Almost half of the respondents (48%) had engaged in some postgraduate education, and the vast majority of this education was in the form of continuing professional development (e.g., seminars, short courses). The challenge for the future is not only to provide osteopathic education at a pre-professional level, but also to develop appropriate continuing education programmes to meet the needs of practicing osteopaths.

5.7.2 Identity.

In each region included in this study, osteopaths are struggling with the issue of identity, a struggle likely to have an impact on the long term survival of the profession. Seffinger (1996) argued that osteopaths are often eclectic and individualistic, but agree strongly on four unifying principles as expounded by Still; (a) that the body is a unit, (b) that the human body is a self-regulating organism, (c) that physiological function and anatomical structure are interlinked, and (d) that rational treatment is based on the understanding of these principles. Perhaps upholding "osteopathic principles" will be the defining feature of osteopaths in the future, however, osteopaths are not likely to be the only group of health care practitioners who consider the above principles to be sound and reasonable. Andrew Taylor Still was a radical thinker in his day, but osteopathic principles are presently considered commonplace. In the words of William G. Anderson, AOA president 1994-1995, (as cited in Bouley, 1994), "osteopathic medicine is an idea whose time has come," but is unlikely to render osteopaths distinct or unique.

Osteopaths in the USA need to define clearly their role within the health care system, and in particular, explain how they differ from M.D.s. Failure to do so is likely to result in the

further closure of osteopathic hospitals, the reduction of funding to COMs, and the eventual assimilation of osteopathy into allopathic medicine.

Canadian osteopaths have clearly expressed their desire to work together, despite their varied backgrounds, to carve out an identity within the public health care system in that country. The Canadian health system is more readily compared to the Australian Medicare system or the British NHS than to the American system of predominantly private healthcare. It is, therefore, a significant concern to Canadian osteopaths, that they are excluded from the public health system in some provinces. Government recognition is vital to the future of osteopathy in Canada.

European osteopaths are seeking legal identity. In some countries (e.g., Belgium, Norway) some steps have been taken towards government recognition, and consequently, legalisation, of osteopathy. Osteopathy has been practiced clandestinely in some regions of Europe for almost 50 years. It is unlikely that "underground" osteopathy will cease, but a legal identity would allow European osteopaths to practice openly without fear of prosecution.

Australian osteopaths have been closely linked with chiropractors, and to a lesser extent, physiotherapists. Historically this situation has been to the osteopathic profession's benefit, allowing osteopaths to obtain statutory registration and recognition by third party payors. In recent years, however, Australian osteopaths have expressed a desire to develop their own identity and style of practice. The establishment of a Manual Therapists Act and combined registration for osteopaths, chiropractors, and physiotherapists was proposed in the Webb report of 1977. General legislation of this type remains a possibility in Australia because the present administration of two or three acts in each state for relatively small, yet similar, professions is a considerable government expense. Australian osteopaths are aware, therefore, that they need to distinguish themselves clearly from chiropractors and

physiotherapists if they wish to continue to use the title "osteopath" and function as a discrete profession.

The British osteopathic profession is considerably larger than that in Australia. The British public are aware of what a British osteopath does and the conditions that might prompt them to seek osteopathic care. Up to one million Britons seeks osteopathic care each year (GCRO, 1994). The British osteopathic profession, therefore, does not have the same need to distinguish itself in the mind of the public from chiropractic or physiotherapy.

British osteopathy does face the considerable challenge of developing an identity that is inclusive of all its members. Less than a decade ago, the British osteopathic profession comprised four distinct professional groups who largely refused to communicate, and accused each other of being inappropriately trained for safe practice. British osteopaths need to come to terms with the knowledge that those they formerly rejected, are now their colleagues (A. Gibbons, personal communication, November 1996).

5.7.3 Links with statutory bodies.

Osteopaths working in countries where osteopathy is not protected by statute identified statutory registration and government recognition as future challenges for their profession (see Table 4.4). Generally, these practitioners indicated that statutory registration was desirable, and expected to bring considerable benefits to the osteopathic profession in their country.

Statutory registration does not necessarily guarantee practitioners the freedom to act as service providers within the public health system, or to receive third party payment for services. Some healthcare practitioners are permitted to act as service providers in the absence of registration. Australian naturopaths and masseurs, who are members of selected professional associations, are permitted to provide services for the Victorian Workcover Authority. Other practitioners may be excluded from third party plans despite statutory

registration. Australian osteopaths, chiropractors, and physiotherapists are unable to bill consultation fees to the public health service (Medicare).

Osteopaths in New Zealand face an additional challenge: that of statutory registration. ISOP and the NZRO will need to work together if they desire legislation governing osteopathy in New Zealand. Neither association alone has the critical mass in membership to lobby successfully for legislation (Grace, 1997).

Statutory registration in all provinces of Canada is also a considerable challenge for Canadian osteopaths. The dichotomous nature of the Canadian osteopathic profession means that appropriate legislation may be particularly difficult to draft. The legislative process is likely to be easier if American and Canadian trained osteopaths, resident and practicing in Canada, reach agreement over the level of osteopathic training required for: (a) the practice of OMM, and (b) general medical practice.

In many European countries, particularly those where osteopathy is illegal, statutory registration is a pressing concern. The divided nature of the profession in Europe is, however, a considerable deterrent to the legislative process. European osteopaths will have to learn to work as colleagues, otherwise they may find themselves excluded from the practice of OMM altogether, as allopathic medical practitioners lobby for legislation to limit osteopathic practice to fully licensed physicians.

Osteopaths in the UK are enjoying the benefits of the recent introduction of statutory registration (Daniels, 1998c). The challenge for those practitioners not yet listed on the statutory register, is to complete the PPP documentation and wait for the decision of the GOsC as to their suitability for registration. The GOsC is tackling the task of processing the PPP documentation as rapidly as possible, but this process is likely to take several months, perhaps years. Other challenges for the GOsC include: (a) accrediting COMS, (b) determining the

level of continuing professional education required for ongoing registration, and (c) ensuring adequate programmes are available to allow equity in the provision of continuing professional development for all British osteopaths.

It is my expectation that osteopaths world wide will continue to struggle with statutory registration and identity issues for several years yet. I hope that the production of a Worldwide Sourcebook of Osteopathy will allow distribution of information about the global variation within the profession, and encourage osteopaths to see themselves as part of a diverse, yet vibrant, global community.

5.8 Conclusions and Recommendations for Further Research

During the time taken to complete this research, three items of legislation regarding osteopathy were enacted. I recommend, therefore, that investigation be undertaken to measure the impact of legislative change on the provision of osteopathic health care services, particularly in primary care settings.

During the past three and a half years, two osteopathic colleges have delayed commencing education in order to repeat aspects of the accreditation process required for COMs in that region. Accreditation of osteopathic colleges is frequently portrayed as a beneficial process because institutions must report education outcomes, and are motivated, therefore, to address inadequacies. Chetland (1992) and Edwards (1994) explained that education at non-accredited institutions is not necessarily of a lower standard than that at accredited colleges. Accreditation is usually an expensive process for the college concerned (e.g., the 1998 accreditation of Victoria University of Technology by the Osteopaths Registration Board of Victoria was billed at approximately $7000 AUD). Expenses associated with accreditation may be carried by the profession at large in increased registration fees. I recommend that the cost-benefits of COM accreditation processes be reviewed.

Several non-accredited osteopathic colleges are included in the Worldwide Sourcebook of Osteopathy. Research into the educational background and workplace behaviour of graduates from non-accredited osteopathic colleges is required in order to obtain a complete picture of osteopathic education and practice.

This study has given a picture of the osteopathic profession internationally, at this point in time. Repeat research will be required in order to maintain currency of data. Several other areas of osteopathic service delivery could be illuminated through appropriate inclusions in future research, including: (a) the earning power of osteopaths, (b) the actual number of hours osteopaths work, and (c) the nature and diversity of osteopaths' patient base.

As I suggested earlier, researchers using a data collection tool similar to Q2 may wish to include a "frequency of use" scale in order to ascertain how much of an osteopath's time in practice is devoted to the use of a given skill. This improvement to Q2 would be appropriate for research into both accredited and non-accredited colleges and their graduates. Knowledge of the frequency of use of particular techniques and skills would be helpful in accurately defining osteopathic practice, and may be of assistance to legislators wishing to include an appropriate definition in law.

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Appendix A: Report form R1

Key
E = Excellent, without flaw.
S = Satisfactory, makes appropriate use of...
BA = Barely adequate, does not make full use of...
I = Inadequate, inappropriate for task at hand.

Section 1 - Clinic Infrastructure	On site	Off site	Not available
Hospital - inpatient facility			
Hospital - outpatient facility			
Ambulatory care clinic			
District / Community based care			
House calls			

Section 2 - Clinic Organisation and Management	E	S	BA	I
Treatment rooms				
Number of rooms with respect to patient numbers				
Ease of access to rooms for patients				
Cleanliness and hygiene of rooms				
Privacy of rooms				
Decoration				
Temperature				
Availability of toilet facilities				
Specialist Rooms				
Clinical laboratory				
Availability of radiographic services				
Discussion rooms for tutoring				
Clinical Equipment				
Quality and currency of equipment				
Variety				
Availability (with respect to student / staff numbers)				
Documentation				
Booking, reception and waiting area facilities				
Accuracy and currency of case histories / patient records				
Security and confidentiality of " " "				
Filing and cross referencing of " " "				
Letters of referral				
Requests for supplementary tests				
Liaison between reception staff, students and tutors				

Appendix B: Questionnaire Q1

Questionnaire of Osteopathic Education

Is your mailing address correct?
If not, please write your correct address below.

Mailing Address_____
_____
_____
_____
_____
Please include country of residence

Telephone number (optional)_____
Facsimile number (optional)_____
e-mail (optional)_____

Question 1: Please complete the table below by providing details of the number of male and female students, the number of students studying full time and part time, and the total number of contact teaching hours including clinical hours required in each year level.

	Male	Female	Full time	Part time	Hours
Year 1					
Year 2					
Year 3					
Year 4					
Year 5					
Year 6					

Question 2: What is / are the name of the award/s, (degrees, qualifications) granted upon completion of this course of study?

_____
_____
_____
_____

Question 3a: Is government registration (licensing, certification) required of osteopaths in your state, territory or country? ☐ Yes ☐ No

Question 3b: Are graduates from this College of Osteopathic Medicine eligible to register with the appropriate government body for your region? ☐ Yes ☐ No

Question 4: From the list below, please check the boxes corresponding to any of the following practices which you expect of graduates from this College of Osteopathic Medicine.

☐ Acupuncture

- ☐ Anaethsiology / Anaethetics
  - ☐ local
  - ☐ general
- ☐ Delivery of infants
- ☐ Herbal medicine
- ☐ Homoeopathy
- ☐ Laboratory testing (collection and testing of blood, urine, sputum samples)
- ☐ Manual therapies
  - ☐ high velocity low amplitude manipulation
  - ☐ muscle energy technique
  - ☐ direct myofascial therapy (massage, stretching, etc)
  - ☐ indirect myofascial therapy (functional, counterstrain)
  - ☐ visceral manipulation
  - ☐ craniosacral / involuntary mechanism techniques
  - ☐ other (please specify) _____
- ☐ Parenteral preparations / Injections
  - ☐ licensed to use
  - ☐ use in practice
- ☐ Physical examination (temperature, BP, reflexes, ophthalmoscopy, etc)
- ☐ Radiography (operation of radiographic, CT and MRI equipment)
- ☐ Radiology (interpretation of radiographic, CT and MRI studies)
- ☐ Receive referrals from other practitioners
- ☐ Research
- ☐ Restricted pharmaceuticals
  - ☐ licensed to prescribe
  - ☐ prescribe in practice
- ☐ Surgery
  - ☐ in private surgery
  - ☐ in hospital operating theatre
- ☐ Teaching of osteopathic students
- ☐ Teaching of others
  - ☐ lecturer
  - ☐ tutor
  - ☐ preceptor / clinical supervisor
  - ☐ post graduate teaching

Question 5: From the list below, please check the boxes to show which of the following documents are produced by this College of Osteopathic Medicine. Please attach one copy of each document.

- ☐ Prospectus
- ☐ Course outline for each academic year
- ☐ Annual report (most recent only)

Interest in Student Internship Programme

This research project will form the groundwork to help Victoria University of Technology establish an intern placement progamme for osteopathic students so that students might be exposed to the full extent of osteopathic practice as part of their undergraduate training.

Victoria University of Technology would welcome all interested practitioners to consider acting as a possible host or supervisor within our student placement programme. To host a student means to provide a student with accommodation and food for the period of their field placement; approximately 6 to 8 weeks. To supervise a student means to provide a learning environment for the student for the duration of the field placement.

Please tick the box(es) which indicate your level of interest in student placement.

☐ Not at all interested.

☐ Would like to be sent a report of the current pilot programme so that I might consider being part of the program at a later date.

☐ Would like to make further enquiries about the field placement programme before I make a decision.

☐ I cannot personally host a student, however our clinic / hospital has facilities for accommodation. (Eg: nurses' hostel) Please give details.

_____

_____

_____

_____

_____

☐ I would be prepared to personally host a student for the 1997/98 Australian Summer. (Dec - Feb)

☐ I would be prepared to supervise a student for the 1997/98 Australian Summer. (Dec - Feb)

Signed _____ Dated (DD:MM:YY) ____:____:____
(optional)

Appendix C: Questionnaire Q2 and corresponding covernote

Melainie Cameron
Victoria University of Technology
PO Box 14428
Melbourne MCMC 8001

Telephone: 61 - 3 - 9248 1192
Facsimile: 61 - 3 - 9248 1112
e-mail: melaineecameron@vut.edu.au

Date:

Dear Colleague

My name is Melainie Cameron and I am an Australian trained, registered osteopath. I am currently a staff member in the Osteopathic Medicine unit at Victoria University and am enrolled in a Master of Health Science (Osteopathy) by research degree, also at Victoria University. My study is to investigate the nature and variation of osteopathic practice and osteopathic education around the globe, which will in turn lead to the production of a worldwide sourcebook of osteopathy.

Your completion of the attached questionnaire would greatly assist me in this project. Participation in this project is completely voluntary. Returning a completed questionnaire implies consent.

The questionnaire does not provide a space for your name. I have used an alphanumerical code to identify practitioners to whom I have mailed this questionnaire. This is to protect your personal details in the event that a questionnaire may be lost in the mail.

The details you provide in answering this questionnaire are for the purpose of osteopathic research only. This information will be released only to myself (Melainie Cameron B.App.Sc (Ost)) and to my two supervisors, Dr Mark Andersen PhD and Dr Peter Gibbons D.O. MB.BS. Your personal details will always be protected, and will not, for any reason, be released to a third party.

Should you have any concerns or queries regarding my project, please feel free to contact either myself, or the secretary of the Human Research Ethic Committee at Victoria University. The telephone number for the HREC is 61 - 3 - 9688 4710.

Yours faithfully,

Melainie Cameron
B.App.Sc (Osteopathy)
Registered Osteopath

Questionnaire of Osteopathic Practice

Date of Birth (DD:MM:YY) ____:____:____ Sex: Male / Female (Strike out as appropriate)

Is your mailing address correct?
If not, please write your correct address below.
Mailing Address_____
_____
_____
_____
_____
Please include country of residence

Telephone number (optional)_____
Facsimile number (optional)_____
e-mail address (optional)_____

Question 1: Qualifications prior to osteopathic studies_____
Where obtained? _____
Year completed? _____

Osteopathic Qualifications_____
Where obtained? _____
Year of enrollment? _____
Year completed? _____

Additional Qualifications_____
Where obtained? _____
Year completed? _____

Question 2a: Is government registration (licensing, certification) required for practice in your state, territory or country? ☐ Yes ☐ No

Question 2b: If yes, are you registered with the appropriate government body for your region? ☐ Yes ☐ No

Question 3: Please complete the following table regarding <u>your current work</u> as an osteopath. Please consider the first three entries in the table as an example.

Town / City	Facility	Days/Week	Responsibilities and Duties
Melbourne	University	2.5	Lecturing, tutoring and clinical instruction of osteopathic students
Prahan	Hospital	0.5	Volunteer masseur of patients with HIV/AIDS
Brighton	Private practice	1.0	Osteopathic manual therapy - private consultations

Question 4: From the list below, please check the boxes corresponding to any of the following practices you are currently engaged in as part of your role as an osteopath.

- ☐ Acupuncture
- ☐ Anaethsiology / Anaesthetics
  - ☐ local
  - ☐ general
- ☐ Delivery of infants
- ☐ Herbal medicine
- ☐ Homoeopathy
- ☐ Laboratory testing (collection and testing of blood, urine, sputum samples)
- ☐ Manual therapies
  - ☐ high velocity low amplitude manipulation
  - ☐ muscle energy technique
  - ☐ direct myofascial therapy (massage, stretching, etc)
  - ☐ indirect myofascial therapy (functional, counterstrain)
  - ☐ visceral manipulation
  - ☐ craniosacral / involuntary mechanism techniques
  - ☐ other (please specifiy)_____
- ☐ Parenteral preparations / Injections
  - ☐ licensed to use
  - ☐ use in practice
- ☐ Physical examination (temperature, BP, reflexes, ophthalmoscopy, etc)
- ☐ Radiography (operation of radiographic, CT and MRI equipment)
- ☐ Radiology (interpretation of radiographic, CT and MRI studies)
- ☐ Receive referrals from other practitioners
- ☐ Research
- ☐ Restricted pharmaceuticals
  - ☐ licensed to prescribe
  - ☐ prescribe in practice
- ☐ Surgery
  - ☐ in private surgery
  - ☐ in hospital operating theatre
- ☐ Teaching of osteopathic students
- ☐ Teaching of others
  - ☐ lecturer
  - ☐ tutor
  - ☐ preceptor / clinical supervisor
  - ☐ post graduate teaching

Question 5: From the list below, please check the boxes corresponding to any of the following practices you were trained in as part of your training to become an osteopath.

- ☐ Acupuncture
- ☐ Anaethsiology / Anaethetics
  - ☐ local
  - ☐ general
- ☐ Delivery of infants
- ☐ Herbal medicine
- ☐ Homoeopathy
- ☐ Laboratory testing (collection and testing of blood, urine, sputum samples)
- ☐ Manual therapies
  - ☐ high velocity low amplitude manipulation
  - ☐ muscle energy technique
  - ☐ direct myofascial therapy (massage, stretching, etc)
  - ☐ indirect myofascial therapy (functional, counterstrain)
  - ☐ visceral manipulation
  - ☐ craniosacral / involuntary mechanism techniques
  - ☐ other (please specify)_____
- ☐ Parenteral preparations / Injections
  - ☐ licensed to use
  - ☐ use in practice
- ☐ Physical examination (temperature, BP, reflexes, ophthalmoscopy, etc)
- ☐ Radiography (operation of radiographic, CT and MRI equipment)
- ☐ Radiology (interpretation of radiographic, CT and MRI studies)
- ☐ Receive referrals from other practitioners
- ☐ Research
- ☐ Restricted pharmaceuticals
  - ☐ licensed to prescribe
  - ☐ prescribe in practice
- ☐ Surgery
  - ☐ in private surgery
  - ☐ in hospital operating theatre
- ☐ Teaching of osteopathic students
- ☐ Teaching of others
  - ☐ lecturer
  - ☐ tutor
  - ☐ preceptor / clinical supervisor
  - ☐ post graduate teaching

Interest in Student Placement Program

This research project will form the groundwork to help Victoria University of Technology establish an intern placement progamme for osteopathic students so that students might be exposed to the full extent of osteopathic practice as part of their undergraduate training.

Victoria University of Technology would welcome all interested practitioners to consider acting as a possible host or supervisor within our student placement programme. To host a student means to provide a student with accommodation and food for the period of their field placement; approximately 6 to 8 weeks. To supervise a student means to provide a learning environment for the student for the duration of the field placement.

Please tick the box(es) which indicate your level of interest in student placement.

☐ Not at all interested.

☐ Would like to be sent a report of the current pilot programme so that I might consider being part of the program at a later date.

☐ Would like to make further enquiries about the field placement programme before I make a decision.

☐ I cannot personally host a student, however our clinic / hospital has facilities for accommodation. (Eg: nurses' hostel) Please give details.

_____

_____

_____

_____

_____

☐ I would be prepared to personally host a student for the 1997/98 Australian Summer. (Dec - Feb)

☐ I would be prepared to supervise a student for the 1997/98 Australian Summer. (Dec - Feb)

Signed _____ Dated (DD:MM:YY) ____:____:____
(optional)

Appendix D: Site visit itinerary

Date	Clinical site
25 - 26 Oct	RMIT University • Phillip Osteopathic Teaching Clinic • Melbourne Osteopathic Clinic
28 - 30 Oct	College of Osteopathic Medicine of the Pacific • Mission Clinic • Rancho Clinic
31 Oct - 1 Nov	University of Health Sciences • Neighborhood Medical Center • Park Lane Osteopathic Hospital
4 –5 Nov	Kirksville College of Osteopathic Medicine • On-site ambulatory care clinic
7 – 8 Nov	Chicago College of Osteopathic Medicine • Olympia Fields Hospital
11 – 12 Nov	Michigan State University College of Osteopathic Medicine • Michigan Capital Medical Center • Osteopathic Medicine Clinical Center
13 – 15 Nov	University of New England College of Osteopathic Medicine • On-site ambulatory care clinic
18 – 19 Nov	New York College of Osteopathic Medicine • On-site ambulatory care clinic
20 Nov	Canadian College of Osteopathic Medicine • On-site ambulatory care clinic
22 – 23 Nov	College d'Etudes Osteopathique • On-site ambulatory care clinic
25 Nov	British School of Osteopathy • On-site ambulatory care clinic
26 Nov	British College of Naturopathy and Osteopathy • On-site ambulatory care clinic
27 Nov	London College of OsteopathicMedicine • On-site ambulatory care clinic
28 Nov	European School of Osteopathy • On-site ambulatory care
29 Nov	Osteopathic Information Services
2 Dec	British College of Naturopathy and Osteopathy
2 – 3 Dec	Rochford Road Clinic, Chelmsford, England.
5 Dec	Registre de Osteopathes du France
6 Dec	College Sutherland Osteopathique (France)
9 Dec	International Academy of Osteopathy • On-site ambulatory care clinic
10 Dec	Registre des Osteopathes be Belgique asbl
11 – 12 Dec	Sutherland College of Osteopathic Medicine (Belgium)
15 Dec	Victoria University of Technology • Osteopathic Medicine Clinic

Appendix E: Composite data from questionnaire Q2

Demographic data

Region		Useful Replies	Retired	Return to sender	Not interested	Chiropractor	Male	Female
Australasia	n=	36	2	9	1	8	23	13
	%						63.9	36.1
Canda	n=	7		2			6	1
	n*=	31.8	0.0	9.1			27.3	4.5
	%						85.7	14.3
Europe	n=	38		11			35.0	3.0
	%						92.1	7.9
UK	n=	30	1	1			12.0	18.0
	%						40.0	60.0
USA	n=	27		8			24.0	3.0
	%						88.9	11.1
Overall	n=	138	3	31	1	8	100	38
	n*=	162.8	3.0	38.1			121.3	41.5
	%	32.6	0.6	7.6			76.8	26.3

Other techniques specified

Question 4

articulation / classical osteopathy

applied kinesiology
interosseous techniques
orthodontic / intraoral techniques

rehabilitation
ultrasound

Question 5

articulation

chains of muscles
specific adjusting techniques
orthodontic / intraoral techniques

exercise prescription
Bowen technique

activator gun

Question 4: Current osteopathic practice.

	Acupunct	Local Anaesth	General Anaesth	Delivery of infants	Herbal Medicine	Homoeo	Laboratory Tests	HVLA	MET	Direct Myofascial	Indirect Myofascial	Visceral	Cranial IVM	Other	Lic to Inject	Use Injections
Australasia	5	1	1	2	4	3	3	32	28	28	25	23	21	7	1	3
Percentage	13.9	2.8	2.8	5.6	11.1	8.3	8.3	88.9	77.8	77.8	69.4	63.9	58.3	19.4	2.8	8.3
Canada	0	1	0	0	0	0	0	7	4	7	5	3	5	2	1	0
Corrected	0.0	4.5	0.0	0.0	0.0	0.0	0.0	31.8	18.2	31.8	22.7	13.6	22.7	9.1	4.5	0.0
Percentage	0.0	14.3	0.0	0.0	0.0	0.0	0.0	100.0	57.1	100.0	71.4	42.9	71.4	28.6	14.3	0.0
Europe	5.0	0.0	0.0	0.0	4.0	4.0	1.0	35.0	32.0	29.0	34.0	36.0	35.0	15.0	0.0	0.0
Percentage	13.2	0.0	0.0	0.0	10.5	10.5	2.6	92.1	84.2	76.3	89.5	94.7	92.1	39.5	0.0	0.0
UK	2.0	0.0	0.0	0.0	2.0	3.0	2.0	27.0	22.0	26.0	19.0	10.0	21.0	3.0	1.0	1.0
Percentage	6.7	0.0	0.0	0.0	6.7	10.0	6.7	90.0	73.3	86.7	63.3	33.3	70.0	10.0	3.3	3.3
USA	0.0	12.0	4.0	3.0	1.0	0.0	11.0	13.0	15.0	13.0	10.0	2.0	6.0	0.0	18.0	17.0
Percentage	0.0	44.4	14.8	11.1	3.7	0.0	40.7	48.1	55.6	48.1	37.0	7.4	22.2	0.0	66.7	63.0
Total - actual	12	14	5	5	11	10	17	114	101	103	93	74	88	27	21	21
Adjusted	12.0	17.5	5.0	5.0	11.0	10.0	17.0	138.8	115.2	127.8	110.7	84.6	105.7	34.1	24.5	21.0
Percentage	7.6	11.1	3.2	3.2	7.0	6.3	10.8	87.9	72.9	80.9	70.1	53.6	66.9	21.6	15.5	13.3

	Physical Examination	Radiography	Radiology	Referals	Research	Lic to Prescribe	Prescribe medication	Local Surgery	OR Surgery	Teach Osteopaths	Teach Others	Lecturer	Classroom Tutor	Clinical Tutor	Postgrad Teaching
Australasia	32	1	21	30	8	1	2	1	1	12	7	6	4	7	2
Percentage	88.9	2.8	58.3	83.3	22.2	2.8	5.6	2.8	2.8	33.3	19.4	16.7	11.1	19.4	5.6
Canada	4	0	5	6	1	1	0	1	0	2		1	1	1	0
Corrected	18.2	0.0	22.7	27.3	4.5	4.5	0.0	4.5	0.0	9.1	0.0	4.5	4.5	4.5	0.0
Percentage	57.1	0.0	71.4	85.7	14.3	14.3	0.0	14.3	0.0	28.6	0.0	14.3	14.3	14.3	0.0
Europe	22.0	0.0	20.0	17.0	3.0	0.0	1.0	0.0	1.0	17.0	1.0	13.0	7.0	4.0	7.0
Percentage	57.9	0.0	52.6	44.7	7.9	0.0	2.6	0.0	2.6	44.7	2.6	34.2	18.4	10.5	18.4
UK	27.0	0.0	10.0	28.0	5.0	0.0	1.0	1.0		4.0	5.0	3.0	4.0	1.0	2.0
Percentage	90.0	0.0	33.3	93.3	16.7	0.0	3.3	3.3	0.0	13.3	16.7	10.0	13.3	3.3	6.7
USA	19.0	3.0	16.0	20.0	7.0	18.0	16.0	6.0	4.0	17.0	17.0	12.0	5.0	18.0	7.0
Percentage	70.4	11.1	59.3	74.1	25.9	66.7	59.3	22.2	14.8	63.0	63.0	44.4	18.5	66.7	25.9
Total - actual	104	4	72	101	24	20	20	9	6	52	30	35	21	31	18
Adjusted	118.2	4.0	89.7	122.3	27.5	23.5	20.0	12.5	6.0	59.1	30.0	38.5	24.5	34.5	18.0
Percentage	74.8	2.5	56.8	77.4	17.4	14.9	12.7	7.9	3.8	37.4	19.0	24.4	15.5	21.9	11.4

Question 5: Osteopathic education

	Acupunct	Local Anaesth	General Anaesth	Delivery of Infants	Herbal Medicine	Homoeo	Laboratory Tests	HVLA	MET	Direct Myofascial	Indirect Myofascial	Visceral	Cranial IVM	Other	Lic to Inject	Use Injections
Australasia	5	1	0	4	5	5	8	34	27	35	28	22	23	7	1	5
Percentage	13.9	2.8	0.0	11.1	13.9	13.9	22.2	94.4	75.0	97.2	77.8	61.1	63.9	19.4	2.8	13.9
Canada	0	2	2	5	0	0	5	7	4	6	5	5	5	0	5	5
Corrected	0.0	9.1	9.1	22.7	0.0	0.0	22.7	31.8	18.2	27.3	22.7	22.7	22.7	0.0	22.7	22.7
Percentage	0.0	28.6	28.6	71.4	0.0	0.0	71.4	100.0	57.1	85.7	71.4	71.4	71.4	0.0	71.4	71.4
Europe	3.0	0.0	0.0	2.0	3.0	3.0	5.0	34.0	33.0	32.0	32.0	34.0	32.0	10.0	1.0	1
Percentage	8.6	0.0	0.0	5.7	8.6	8.6	14.3	97.1	94.3	91.4	91.4	97.1	91.4	28.6	2.9	2.9
UK	0.0	0.0	0.0	0.0	0.0	0.0	9.0	29.0	24.0	27.0	25.0	18.0	20.0	3.0	0.0	1
Percentage	0.0	0.0	0.0	0.0	0.0	0.0	30.0	96.7	80.0	90.0	83.3	60.0	66.7	10.0	0.0	3.3
USA	0.0	20.0	10.0	22.0	1.0	1.0	23.0	24.0	24.0	25.0	21.0	5.0	13.0	0.0	21.0	18
Percentage	0.0	74.1	37.0	81.5	3.7	3.7	85.2	88.9	88.9	92.6	77.8	18.5	48.1	0.0	77.8	66.7
Total - actual	8	23	12	33	9	9	50	128	112	125	111	84	93	20	28	30
Adjusted	8.0	30.1	19.1	50.7	9.0	9.0	67.7	152.8	126.2	146.3	128.7	101.7	110.7	20.0	45.7	47.7
Percentage	5.2	19.4	12.3	32.7	5.8	5.8	43.7	98.6	81.4	94.4	83.0	65.6	71.4	12.9	29.5	30.8

	Physical Examination	Radiography	Radiology	Referals	Research	Lic to Prescribe	Prescribe medication	Local Surgery	OR Surgery	Teach Osteopaths	Teach Others	Lecturer	Classroom Tutor	Clinical Tutor	Postgrad Teaching
Australasia	32	3	28	13	7	0	1	1	1	5	2	2	3	3	1
Percentage	88.9	8.3	77.8	36.1	19.4	0.0	2.8	2.8	2.8	13.9	5.6	5.6	8.3	8.3	2.8
Canada	5	2	4	3	1	6	4	3	4	3	2	2	2	0	1
Corrected	22.7	9.1	18.2	13.6	4.5	27.3	18.2	13.6	18.2	13.6	9.1	9.1	9.1	0.0	4.5
Percentage	71.4	28.6	57.1	42.9	14.3	85.7	57.1	42.9	57.1	42.9	28.6	28.6	28.6	0.0	14.3
Europe	21.0	0.0	25.0	7.0	3.0	3.0	3.0	0.0	0.0	3.0	0.0	1.0	1.0	1.0	0.0
Percentage	60.0	0.0	71.4	20.0	8.6	8.6	8.6	0.0	0.0	8.6	0.0	2.9	2.9	2.9	0.0
UK	29.0	1.0	24.0	11.0	4.0	0.0	0.0	1.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0
Percentage	96.7	3.3	80.0	36.7	13.3	0.0	0.0	3.3	3.3	3.3	0.0	0.0	0.0	0.0	0.0
USA	26.0	10.0	23.0	17.0	9.0	17.0	17.0	13.0	14.0	16.0	13.0	11.0	10.0	13.0	8.0
Percentage	96.3	37.0	85.2	63.0	33.3	63.0	63.0	48.1	51.9	59.3	48.1	40.7	37.0	48.1	29.6
Total - actual	113	16	104												
Adjusted	130.7	23.1	118.2	61.6	27.5	47.3	39.2	28.6	34.2	38.6	24.1	23.1	23.1	17.0	13.5
Percentage	84.3	14.9	76.2	39.8	17.8	30.5	25.3	18.5	22.1	24.9	15.5	14.9	14.9	11.0	8.7