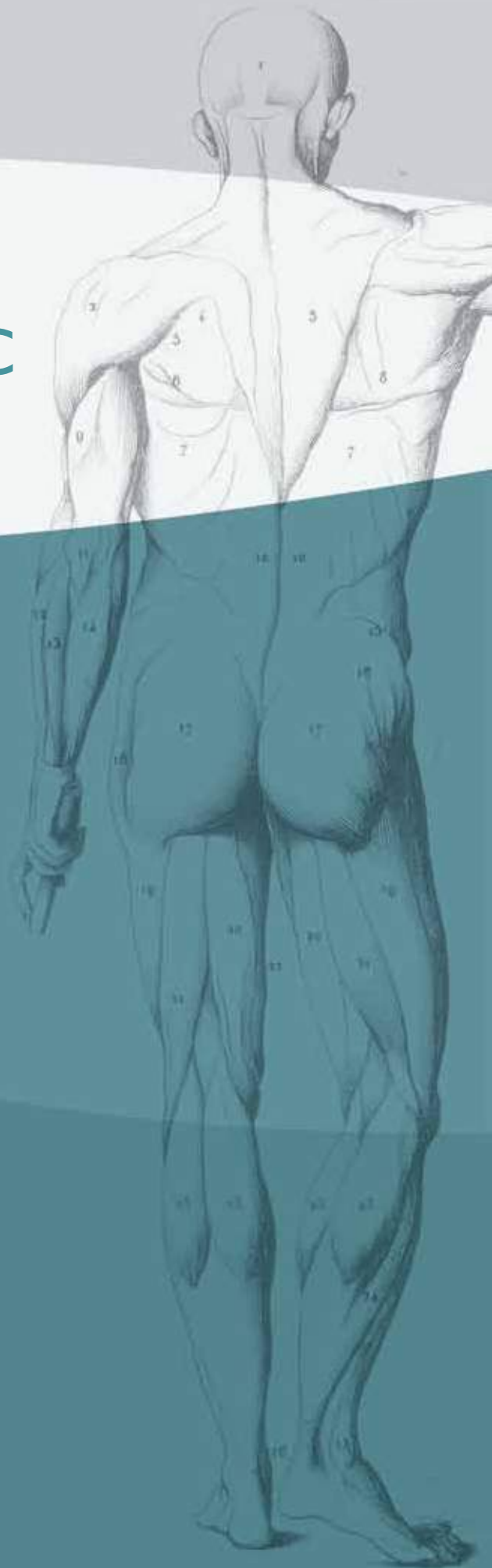


OSTEOPATHY AND OSTEOPATHIC MEDICINE

A Global View of Practice,
Patients, Education and the
Contribution to Healthcare
Delivery


OIA





FOREWORD

The World Health Organization has set out three key objectives in its Traditional Medicine Strategy 2014-2023:

- To build the knowledge base for active management of traditional and complementary medicine through appropriate national policies
- To strengthen quality assurance, safety, proper use and effectiveness of traditional and complementary medicine by regulating products, practices and practitioners
- To promote universal health coverage by integrating traditional and complementary medicine services appropriately into national health service delivery and self-healthcare.

This report from the Osteopathic International Alliance is an important achievement for the osteopathic profession in collating and reporting baseline data regarding the state of the profession worldwide. It provides useful information for policy makers to consider the contribution to the healthcare sector made by the osteopathic profession; the development in education and regulation standards; and the efforts on safety and quality of service delivery. The report is also helpful in the implementation of the WHO Traditional Medicine Strategy 2014-2023 and the WHO Benchmarks for Training in Osteopathy.

Dr Zhang Qi
Coordinator of Traditional and Complementary
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This report from the Osteopathic International Alliance is the culmination of several years work on behalf of the international profession. A profession that now has a global presence, being practised on every continent except Antarctica.

After the publication of the World Health Organization Benchmarks for Training in Osteopathy in 2010 the OIA Board was given a strong mandate to demonstrate the profession's international contribution to healthcare delivery.

All member organisations have contributed to this report from various sectors of the profession including national professional associations, regulators, accreditation authorities and educational institutions.

The result is an affirmation of the success of the coming together of both streams of the profession, from both regulated and unregulated countries, under the unifying umbrella of the OIA.

Particular thanks goes to:

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Dr Johannes Meyer, Past Chair OIA Board, Germany
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SUMMARY OF KEY POINTS

Once considered complementary or alternative, osteopathic medicine and osteopathy now make a global contribution to patient-centred, evidence-informed, integrated healthcare.

The concepts, history and spread of osteopathic healthcare (Chapter 1)

- Osteopathic healthcare is based on the principle that the structure and functions of the body are closely integrated, and that a person's well-being is dependent upon the neurological, musculoskeletal and visceral structures working in balance together.
- The approach was established in 1874 in the US by Andrew Taylor Still; over the first half of the 20th century osteopathic practice rapidly spread globally.
- Osteopathic healthcare is now provided in every continent except Antarctica and is practised in more than 50 countries.
- Globally, two professional streams have emerged, largely due to different legal and regulatory structures around the world: osteopathic physicians (practising osteopathic medicine) are doctors with full, unlimited medical practice rights and can specialise in any branch of medical care; osteopaths (practising osteopathy) are primary contact health providers with nationally-defined practice rights, and may not for example prescribe pharmaceuticals or perform surgery.

Practitioners, patients and the scale of osteopathic practice (Chapter 2)

Practitioners

- The OIA 2013 survey of 33 countries identified at least 87,850 osteopathic physicians worldwide, a 70% increase over the past decade. The vast majority (82,500) are in the US, where in 2012 osteopathic physicians accounted for 7.2% of US physicians.
- The survey identified approximately 43,000 osteopaths worldwide, nearly triple the number a decade ago. The countries with the largest number are France, Germany, Italy, UK, Australia, Belgium and Canada, which together accounted for almost 38,000 practitioners.
- The total number of students enrolled at US osteopathic medical schools has risen from 14,409 in 2006-7 to 21,741 in 2012-13. The OIA 2013 survey identified 25 countries with osteopathy training schools or universities: the countries where data were available reported 14,750 enrolled osteopathy students, of whom 10,000 were in France.

Patients

- Osteopathic practitioners treat patients of all ages, from birth to very old age. The OIA 2012 survey found one-third of patients were between 31 and 50 years old. Nearly a quarter (23.4%) were aged 18 and younger, including 8.7% below the age of two years.
- In the OIA 2012 survey, acute, sub-acute and chronic conditions were similarly cited by patients as their reason for seeking osteopathic treatment; in addition, approximately one in five patients attended for a general osteopathic check-up.
- More than half of patients were seeking help for pain. Acute patients most commonly presented with problems due to local pain and restricted motion. For chronic patients their pain was more likely to be over a larger area.
- The range of presenting symptoms is very diverse, but all surveys indicate that musculoskeletal back pain is the most common condition among osteopathic patients.
- For both acute and chronic patient groups, the lumbar spine, neck, thoracic spine, thorax, and pelvic area were the most frequent areas with problems.

- In countries that do not have wide coverage of private health insurance, most osteopathic treatment is self-funded by patients.

Practice characteristics

- The most common work environment for both osteopathic physicians and osteopaths is private practice, with or without partners. According to the OIA 2012 survey, about half of all osteopathic practitioners work at least seven hours a day. In both professional streams, part-time working is common.
 - The majority of practitioners work as primary care physicians or generalist osteopaths. In the US, around 60% of practising osteopathic physicians work in the primary care specialties of family medicine, general internal medicine, paediatrics, and obstetrics and gynaecology. Most osteopaths, even if they have an area of particular interest, treat a wide range of patients and conditions.
 - Osteopathic manipulative treatment (OMT) is a core activity for both osteopathic physicians and osteopaths. The OIA 2012 survey found that more than a quarter of US and EU osteopathic physicians spent more than half their work time delivering OMT, although almost half said it represented less than 10% of their work. Among osteopaths, more than 90% spent more than half their time delivering OMT.
- Several different osteopathic techniques are typically used to treat a single patient. These cover rhythmic techniques, short precise impulses, joint positioning techniques and very gentle specifically applied pressures.
 - Osteopathic practitioners commonly integrate osteopathic techniques with other healthcare treatments such as pain medication, standard healthcare and complementary therapies. The OIA 2012 survey found that around 39% of the last 10 acute patients were taking medication for pain in addition to osteopathic treatment, while 42% of the last 10 chronic patients were doing so.
 - Physiotherapy, massage and a range of complementary medicine techniques are commonly provided in addition to osteopathy, both for acute and chronic conditions. According to the OIA 2012 survey, around 27% of patients had received at least one additional treatment.

Relationship with the wider healthcare system

- As well as examples of formal integration of osteopathic healthcare within national healthcare systems, osteopaths work constructively in parallel and in communication with physicians and other healthcare professionals.

- The OIA 2012 survey found that a majority of patients had attended consultations with medical doctors or other healthcare providers before presenting for osteopathic treatment. This was true both for patients of osteopathic physicians and of osteopaths.

Profession demographics

- The osteopathic profession is relatively 'youthful'. In the US, 58% of osteopathic physicians are under the age of 45. The 2012 OIA survey found that around one-third of osteopaths were below the age of 40, although there is considerable variation between individual countries.
- The proportion of female practitioners has increased. In the US, women now account for more than a third of all osteopathic physicians and in the under-35 age group women outnumber men. The OIA 2012 survey found that 48.7% of responding osteopaths were female; men are now the minority among osteopaths below the age of 30, although again there is considerable variation between individual countries.

Models of education and regulation (Chapter 3)

- Recognition, education and regulation of osteopathic practitioners have developed differently around the world, influenced by the specific cultural, economic, legal and political factors of individual countries.

Education

- Osteopathic education programmes exist in more than 25 countries. Osteopathic physicians and osteopaths share a core curriculum and core competencies, but there are significant differences between the two professional streams in education, clinical competency, and scopes of practice.
- All osteopathic physicians are university graduates holding medical degrees: in the US they study osteopathic medicine, which is fully integrated with medical schools, but elsewhere most osteopathic physicians are MDs with additional osteopathic qualifications.
- Across much of Europe, Australia and New Zealand, the generally accepted norm for training as an osteopath has become a Master's level qualification. In some countries the equivalent of a Bachelor's degree remains the accepted norm or post-professional training is accepted.

- There have been several initiatives to describe minimum standards for osteopathic education and training, including the WHO Benchmarks for Training in Osteopathy in 2010 and, in Europe, the European Framework for Standards of Osteopathic Education and Training (EFSOET), developed by the Forum for Osteopathic Regulation in Europe (FORE).

Regulation

- State licensing of osteopathic physicians dates back to 1897 in the US and licensing of osteopaths to 1978 in Australia. Healthcare regulators in several other countries have deemed it important to establish a legal framework for the practice of osteopathic healthcare in order to ensure standards for public safety.
- More countries are now recognising and regulating osteopathic care. Since 2000 there has been an increase in countries introducing compulsory osteopathic practitioner registration and/or regulation of practice; there are now at least 15 countries where osteopathy and/or osteopathic medicine are regulated.
- There is still no statutory regulatory framework for osteopathy in the majority of countries where osteopaths practise.

- The permitted scope of practice of an osteopathic physician is set by the relevant country's licensing and regulatory systems for doctors, including any specific requirements for working as a specialist. In countries where there is regulation, osteopaths' practice rights will be nationally defined. However, for osteopaths in countries that do not recognise or regulate the profession, scope of practice is often less clear cut.
- The osteopathic profession is committed to monitoring and maintaining standards of practice and ethics. In countries with compulsory licensing or registration, osteopathic practitioners are usually required periodically to renew their licence or registration. In countries where osteopathy is not regulated, professional associations usually work to maintain standards and to establish accepted thresholds of entry into the profession.

Efficacy, safety and cost-effectiveness (Chapter 4)

- A body of evidence on manual techniques exists, in the form of systematic reviews and randomised controlled trials, showing the effectiveness of manual therapy using manipulation for low back pain.
- In Australia, Europe, New Zealand and the US, clinical guidelines for the treatment of low back pain recommend osteopathic techniques such as spinal manipulation.
- Robust scientific research into the efficacy of other osteopathic techniques has been limited, and in many areas remains inconclusive.
- The osteopathic profession is committed to evidence-based practice and over the past decade there has been an expansion in research activity on the outcomes and efficacy of techniques used by osteopathic practitioners.

USE OF TERMINOLOGY

Where relevant, this report distinguishes between 'osteopathy' and 'osteopathic medicine', and between the two professional 'streams': osteopaths and osteopathic physicians. Terms such as 'osteopathic healthcare' and 'osteopathic practitioner' are used more generally to cover healthcare practice and practitioners incorporating osteopathic principles.

Osteopathic physicians are referred to in this report as DOs (for Doctor of Osteopathic Medicine) and their non-osteopathic counterparts as MDs (for Doctor of Medicine). Specific degree qualification titles vary between countries; for instance, the DO title can be used more widely in some countries for a diploma in osteopathy.

INTRODUCTION

Growing numbers of patients are seeking access to osteopathic healthcare and more countries are now recognising the osteopathic approach within their regulatory and national health systems. This reflects the geographical expansion of osteopathy and osteopathic medicine over the past 30 years. Osteopathic healthcare is now provided in every continent except Antarctica and is practised in more than 50 countries.* Yet, to date, the role of the osteopathic profession has not been effectively communicated to a wider audience; including how and where osteopathic treatment is used by patients within the overall delivery of healthcare worldwide.

Purpose and target audience

This report describes the current state of osteopathy and osteopathic medicine globally and how these disciplines interact with national health systems across a range of countries. It uses the most robust data available, while acknowledging gaps in the current evidence. The report addresses some key questions: Who are the practitioners, and is the composition of the profession changing? How many people seek osteopathic treatment and for what main conditions? Who pays? To what extent is osteopathic practice integrated within national health systems? And how do the various regulatory and accreditation systems for osteopathy and osteopathic medicine function around the world?

The target audience includes: national and international policymakers; health ministers; government departments; non-governmental organisations; educators and students; health media; and interested members of the public. The report aims to inform readers about the current scale of osteopathic practice and how patients served by national healthcare systems also use osteopathic treatment.

The role of the Osteopathic International Alliance

This project is an initiative of the Osteopathic International Alliance (OIA), the international organisation representing national and international osteopathic bodies and their osteopath and osteopathic physician members worldwide. One of the OIA's main goals is to 'collect and disseminate accurate and targeted information about the state of the osteopathic profession worldwide'.¹ In March 2012, the OIA published Stage One of its *Status Report on Osteopathy*,² which focused on the principles and practice of osteopathy and osteopathic medicine, core competencies, statutory systems and educational standards. A survey (the OIA 2012 survey[†]) carried out for Stage Two produced an audit of current osteopathic practice, based on a global 'snapshot' of patients; the data from this survey have been used in the preparation of this report.

Osteopathy and Osteopathic Medicine: A Global View of Practice, Patients, Education and the Contribution to Healthcare Delivery complements the OIA's existing research by drawing together data from around the world to describe the extent and role of osteopathic practice. While some national studies exist, this is the first such analysis incorporating an international perspective.

* Based on data collected by the Osteopathic International Alliance and the UK's General Osteopathic Council.

† See Chapter 2 for details of this survey.

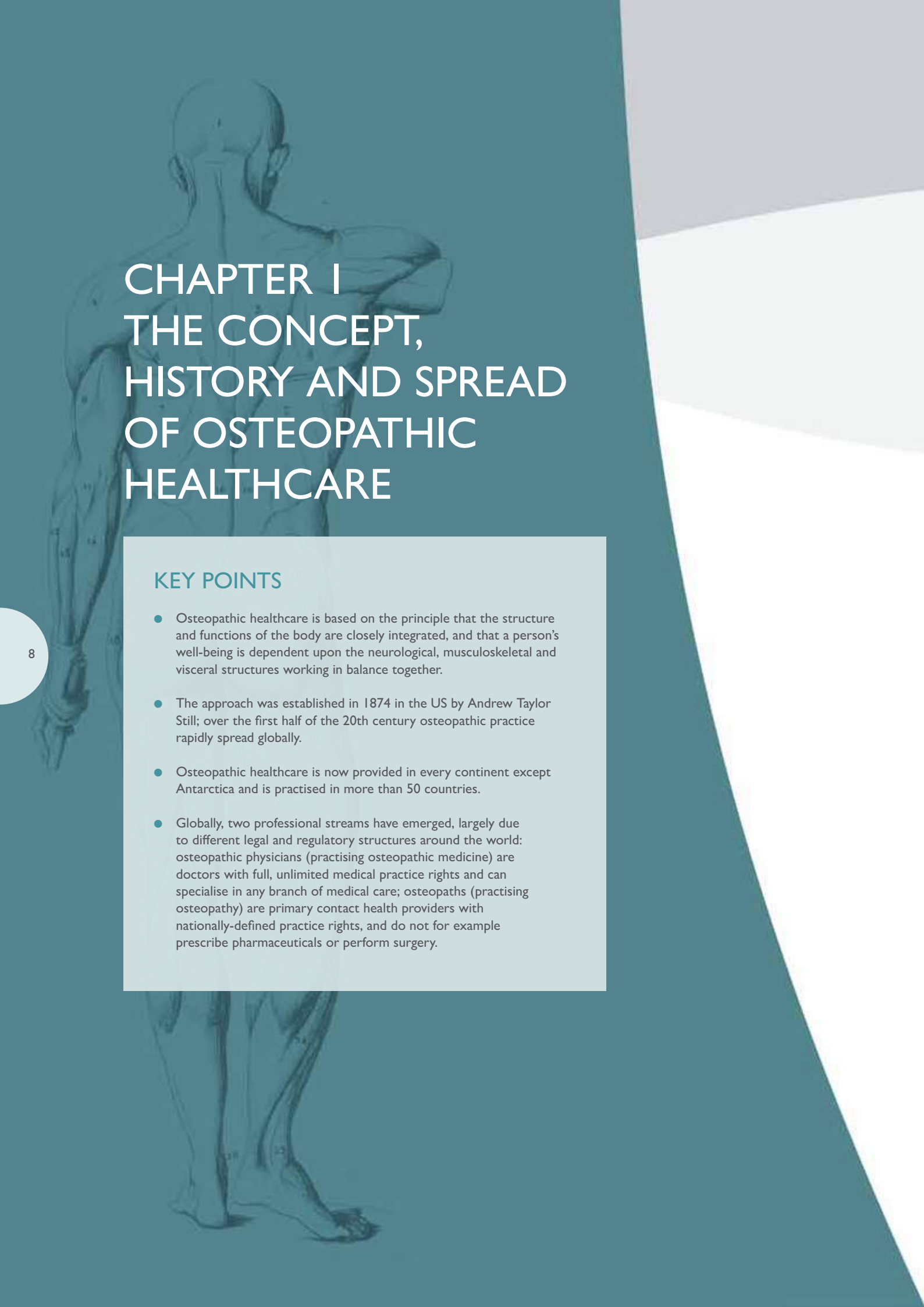
The World Health Organization and osteopathic practice

This publication originally grew out of discussions with the WHO about the need for a wider understanding of the global 'footprint' of osteopathy and osteopathic medicine. In 2010, publication of the WHO's *Benchmarks for Training in Osteopathy*³ marked an important step towards the worldwide acceptance and integration of the osteopathic profession into national systems of healthcare. Through this OIA report, the osteopathic profession hopes to contribute to the WHO's policy development work.

Structure of this report

This report covers four main subject areas:

- *The concept, history and spread of osteopathic healthcare* (Chapter 1) provides a short introduction to osteopathic healthcare; outlines the evolution and growth of the discipline worldwide; and describes the two professional streams that have emerged.
- *Practitioners, patients and the scale of osteopathic practice* (Chapter 2) sets out the best available data and information on those who currently practise, study, receive and pay for osteopathic healthcare; looks at patient and practice characteristics; and assesses the integration/non-integration within national healthcare systems.
- *Models of education and regulation* (Chapter 3) describes the different models worldwide for osteopathic education; sets out the variations between countries in the recognition and regulation of osteopathic practice; and reviews how the profession maintains standards and fitness to practise.
- *Efficacy, safety and cost-effectiveness* (Chapter 4) summarises the key research findings in these areas.



CHAPTER 1 THE CONCEPT, HISTORY AND SPREAD OF OSTEOPATHIC HEALTHCARE

KEY POINTS

- Osteopathic healthcare is based on the principle that the structure and functions of the body are closely integrated, and that a person's well-being is dependent upon the neurological, musculoskeletal and visceral structures working in balance together.
- The approach was established in 1874 in the US by Andrew Taylor Still; over the first half of the 20th century osteopathic practice rapidly spread globally.
- Osteopathic healthcare is now provided in every continent except Antarctica and is practised in more than 50 countries.
- Globally, two professional streams have emerged, largely due to different legal and regulatory structures around the world: osteopathic physicians (practising osteopathic medicine) are doctors with full, unlimited medical practice rights and can specialise in any branch of medical care; osteopaths (practising osteopathy) are primary contact health providers with nationally-defined practice rights, and do not for example prescribe pharmaceuticals or perform surgery.

What is osteopathic healthcare?

Osteopathic healthcare offers a system of assessment, diagnosis and management that can be applied across a wide range of medical conditions. It is based on the principle that the structure and functions of the body are closely integrated, and that a person's well-being requires the neurological, musculoskeletal, circulatory and visceral structures to work in balance together.

Osteopathic practice aims to restore (and maintain) a person's body to its overall natural state of well-being. This homeostasis is seen as promoting the body's ability to heal and regulate itself (Box 1.1).

Osteopathic practitioners thus assess and treat the 'whole person', rather than just focussing on specific symptoms or illnesses. Patients presenting with a particular condition are given an overall structural and functional assessment in line with the osteopathic view that the primary cause of the disorder may be remote from the symptoms. This perception of the body as an integrated whole means that osteopathic healthcare is often described as 'person-centred' rather than 'disease-centred' in its approach to the prevention, diagnosis and treatment of illness and injury. To an osteopathic practitioner, for a person to maintain optimal health, their neurological, musculoskeletal, circulatory and visceral structures must all be functioning well.

Central to the osteopathic approach is a range of 'hands-on' manual techniques for assessment, diagnosis and treatment. These techniques help the practitioner to identify and treat certain health conditions, including musculoskeletal structural problems that, according to the osteopathic view, can influence the body's physiology, including the nervous system, circulation and internal organs.

The osteopathic approach incorporates current medical and scientific knowledge when applying these osteopathic principles to patient care. Scientific review and evidence-informed outcomes have a high priority in patient treatment and case management.

Osteopathic manipulative treatment is most widely known for treatment of musculoskeletal disorders such as back and neck pain, sciatica, sporting injuries and postural strain. It is also used to assist in the treatment of functional problems such as breathing disorders, otitis media, digestive problems and menstrual disorders. As primary healthcare practitioners, the osteopathic profession recognises its responsibility to diagnose and refer patients as appropriate when the patient's condition requires therapeutic intervention that falls outside the competence of an osteopathic practitioner.¹

BOX 1.1 THE PRINCIPLES OF OSTEOPATHIC CARE

Overall, the philosophy of osteopathic care incorporates three key principles in the management of patients, prevention of disorders and promotion of well-being:

- *The human being is a dynamic unit of function, whose state of health is influenced by the body, mind and spirit.*
- *Structure and function are interrelated at all levels.*
- *The body possesses self-regulatory mechanisms and is naturally self-healing.*

(Source: Osteopathic International Alliance (2012) *History and Current Context of the Osteopathic Profession, Status Report on Osteopathy Stage 1*. Chicago: OIA.)

The osteopathic profession is distinct from other healthcare professions that utilise manual and manipulative techniques, such as physiotherapy and chiropractic, and has its own distinctive approach. Osteopathic education, professional associations and international associations are independent of these other professions, an important point in many countries where osteopathic practice is developing. The extent to which osteopathic healthcare does, or does not, share any characteristics with other healthcare disciplines is outside the scope of this report.

The range of manual techniques

Osteopathic practitioners use a wide variety of therapeutic manual techniques in the diagnosis and management of disease and the maintenance of health. These are based upon a highly developed sense of touch (palpation), physical manipulation, soft tissue treatment and stretching. Such techniques are used to: assess, evaluate and diagnose; increase the mobility of joints; relieve muscle tension; enhance blood and optimise nerve supply to tissues; and to help the body's own self-regulating and self-healing mechanisms.

The different elements of osteopathic manipulative treatment (OMT) include short precise impulses, rhythmic mobilising and stretching techniques, joint positioning techniques and very gentle specifically applied pressures. The treatments are designed to strengthen unstable joints and address areas of tissue strain, stress or dysfunction that may impede normal nerve function, circulation and biochemical mechanisms.

Manual techniques may be combined with advice on exercise, posture and nutrition to aid recovery, promote health and prevent symptoms recurring. Encouraging patients to develop attitudes and lifestyles that do not just fight illness but also help prevent disease is a core aspect of the osteopathic philosophy. The biopsychosocial approach of osteopathic healthcare encompasses more than the whole physical body: an individual's work, emotional, family, beliefs and cultural background are also considered and taken into account by the practitioner.

The origins and dissemination of osteopathic practice

Within the Western tradition, written descriptions of manipulation and the treatment of the musculoskeletal system can be traced as far back as Hippocrates (c460-c370 BC) and for centuries there have been individuals – historically called ‘bone-setters’ – skilled in the manipulation of joints. Andrew Taylor Still, founder of the osteopathic approach, was born in 1828 in the American state of Virginia, and took up medicine as an apprentice to his father, learning the rudimentary medical techniques of the day. In 1864, around the time he returned home from the Civil War, three of Still’s children died during a spinal meningitis epidemic, followed by a daughter from pneumonia. These personal tragedies, together with his early medical work and army experiences, had led Still increasingly to question the efficacy of existing 19th century medical practice.

Still’s interest in machines and anatomy gradually convinced him that using manual techniques to correct malfunctions of the body’s musculoskeletal system would promote healing and maintain health. In 1874, he first articulated this new approach, which he subsequently called ‘osteopathy’ – from the Greek *osteon* (bone) and *pathos* (suffering, disease, feeling). Still believed osteopathy was an independent system of medicine that could be applied to all conditions, and initially met with considerable local opposition to his ideas, including from his own family.⁵

In search of a more accepting environment, he moved to Missouri, eventually settling in Kirksville in 1875. His reputation grew and by the mid-1880s he had gained a large patient following.⁶

Foundation of the first osteopathic schools

In 1892, Still founded the American School of Osteopathy (ASO) in Kirksville, in a modest two-room building. The first graduates started to emerge two years later and in 1896⁷ the State of Vermont became the first to recognise the profession of osteopathy. Between 1896-9, 13 osteopathic colleges were opened in the US (some by ASO students setting up in competition with the ASO) and in 1897 the American Association for the Advancement of Osteopathy (later known as the American Osteopathic Association) was founded.

In 1897 Missouri introduced state licensing covering the ASO and its graduates as independent physicians and surgeons. This required changes to the curriculum and osteopathy began to evolve from the ‘evangelical osteopathy’ of Still to a more science-based discipline. By 1911, for instance, the ASO had incorporated vaccines, serum therapy and antitoxins into the bacteriology course.⁸

A key figure in the development and spread of the osteopathic approach was John Martin Littlejohn, a Scotsman educated in divinity, law and oriental

languages, who had emigrated to America in 1892. In 1897, Littlejohn joined Still at ASO in Kirksville, and subsequently moved to Chicago in 1900 to found the American College of Osteopathic Medicine. By 1902 Littlejohn had also qualified as a medical physician.

Still died in 1917, by which time there were around 5,000⁹ osteopathic practitioners in the US and many others had spread across the globe.

The spread to Europe and beyond

Over the first half of the 20th century, the ASO’s alumni played key roles in the development and spread of the new osteopathic discipline. One of Still’s students, William Garner Sutherland, extended Still’s approach to the skull, founding the concept of cranial osteopathy. His text, *The Cranial Bowl*, was published in 1939 after four decades of investigations.

The expansion of the osteopathic approach into mainland Europe and beyond was often spearheaded by former ASO pupils, their students and graduates of other US osteopathic colleges. A list of overseas students from Kirksville compiled by the Still National Museum shows that by 1913, graduating students were enrolled from countries as far flung as Mexico, Germany, Persia, Syria, New Zealand, Bermuda, Norway and Denmark.¹⁰

KEY DATES IN THE EARLY HISTORY OF OSTEOPATHIC HEALTHCARE

1874: *Modern 'osteopathy' founded by Andrew Taylor Still*

1892: *Still opens of the American School of Osteopathy (ASO) in Kirksville, Missouri*

1897: *Missouri introduces state licensing*

1900: *John Martin Littlejohn opens the American College of Osteopathic Medicine in Chicago*

1909: *Osteopathic healthcare introduced in Australia*

1913: *Littlejohn returns to the UK*

1917: *British School of Osteopathy opens*

1930s: *Osteopathic practice had spread into mainland Europe and Australasia*

The return of these international students to their home countries provided channels for osteopathic healthcare to gain a presence outside the US, albeit initially on a small scale.

In the UK, the first person to introduce the osteopathic approach was Littlejohn, through his annual lectures in London from 1898 to 1900.¹¹ From then on, American-trained osteopathic practitioners came to work in England, Scotland and Ireland and established a market for their skills. In 1913, Littlejohn returned to live in England and in 1917 formally opened the British School of Osteopathy (BSO) in London, the first training centre for osteopathic healthcare in Europe.¹²

On the other side of the world, osteopathic healthcare was introduced in Australia in 1909, with at least three American-trained alumni in practice that year. Development of the profession focused on the state of Victoria. The Pax College of Osteopathy (Ballarat) opened there in 1933, 13 overseas trained practitioners had settled in Victoria by 1939,¹³ and the Australian Osteopathic Association was founded there in 1955. In New Zealand, osteopathic practice dates back to the 1930s when it arrived from America. Specific practitioner details are scarce, but US-trained practitioners were recorded at that time in both the north and south islands.

In France, Dr WJ. Douglas, a graduate from the Los Angeles College of Physicians and Surgeons, was in 1936 reported as working in Paris.¹⁴ Dr Robert Lavezzari, who had been taught by one of Still's pupils, went to Paris in 1936 and in 1949 published "Une nouvelle méthode clinique et thérapeutique: l'ostéopathie". And in 1951, the physiotherapist Paul Gény, founded l'École Française d'Ostéopathie where French-speaking physiotherapists could train.¹⁵ For legal reasons, the college transferred to the UK in 1965, where it eventually evolved into the European School of Osteopathy (ESO).¹⁶ The ESO also helped to initiate academic links in countries including Belgium, Austria and Russia, and ran courses in Guadeloupe and Ile de la Réunion for French-speaking physiotherapists.¹⁷ In Germany, Mathilda Brunck, who had graduated from Kirksville in 1911, was by 1936 practising at Charlottenburg.¹⁸

US practitioners continued to help to promote the spread of osteopathic healthcare through relationships with the burgeoning profession in Europe: in August 1936, 37 members of the American Osteopathic Association arrived in London at the end of a European tour that had visited Holland, Germany, Austria and France.¹⁹

Further proliferation of the osteopathic approach was also seen in Switzerland (under the name of Etiopathy) Belgium, Italy, Spain and Portugal. In Europe generally (as in France), many of those who initially studied osteopathic healthcare had a first training in physiotherapy and could avoid legal and recognition problems by using osteopathic techniques within their existing practice.

Worldwide, from the early 20th century, the discipline had also reached countries including Japan, Israel, Russia, South Africa, Singapore and Brazil. In many places osteopathic practice achieved only a toe-hold over several decades due to lack of recognition and/or restrictions to practise. Nevertheless, by the middle of the 20th century, osteopathic healthcare had established a global presence from which it could build. Over the second half of the 20th century, with the introduction of regulatory structures and increased recognition within national healthcare systems, defined models of practice firmly established themselves.

Osteopathic healthcare is now provided in every continent except Antarctica and is practised in more than 50 countries.*

* Based on data collected by the Osteopathic International Alliance and the UK's General Osteopathic Council.

Current models and scope of practice

Osteopathic practitioners currently work within different legal and regulatory structures around the world, resulting in varying permitted scopes of practice. In some countries, such as the USA, they have full medical licensure that gives de facto equality with the mainstream medical profession. In others, such as Australia and the UK, the title of 'osteopath' is protected so that only registered individuals may use it and in these countries osteopaths take full clinical responsibility for the patient rather than work under the authority or direction of a medical practitioner. However, some countries do not regulate who can call themselves an osteopath and manual therapists may be providing treatment advertised as 'osteopathic' without any formal training.

Globally, two professional streams have emerged, largely for historical reasons – osteopathic physicians (practising osteopathic medicine) and osteopaths (practising osteopathy).

Osteopathic physician

Starting with Missouri in 1897, state licensing was gradually introduced across the US, making registration necessary to practise any kind of medicine. The relative standing and relationship of osteopathic practitioners and medical doctors evolved over several decades.

By 1924, 38 states had legally recognised the concept of the osteopathic physician and by the early 1930s the curricula of the osteopathic colleges closely resembled those of regular medical schools.

Nevertheless, in 1938, medical doctors were still forbidden to engage in any professional relationship with osteopathic physicians.²⁰ During World War II, osteopathic physicians were not allowed to practise in military service but played a crucial role in meeting the shortage of community doctors. This laid the foundations for the equality in scope of practice that subsequently emerged: in 1963, the US Civil Service Commission announced that osteopathic physicians and medical doctors were of equal status; osteopathic physicians were accepted as military physicians during the Vietnam War; and by 1974, osteopathic physicians had full practice rights in 50 states.²¹

Today in the US, osteopathic physicians (also known as DOs, for Doctor of Osteopathic Medicine) are fully licensed to practise the full range of medical care, including prescribing medicines and performing surgery. They specialise in all areas of medicine, ranging from primary care disciplines such as family medicine, general internal medicine and paediatrics, to specialised disciplines such as neurosurgery, radiology, oncology and psychiatry. (For details of the educational pathways for osteopathic physicians see Chapter 3).

OSTEOPATHIC PHYSICIAN

A person with full, unlimited medical practice rights and who has achieved the nationally recognised academic and professional standards within his or her country to practise diagnosis and provide treatment based upon the principles of osteopathic philosophy. Individual countries establish the national academic and professional standards for Osteopathic Physicians practising within their countries.

(Source: OIA, derived from the American Association of Colleges of Osteopathic Medicine, Educational Council on Osteopathic Principles Glossary of Osteopathic Terminology, April 2009.)

However, while osteopathic physicians (DOs) and medical physicians (MDs) have many things in common, osteopathic medicine is a parallel branch of American medicine and retains a distinct philosophy, training system and approach to patient care.²² The scope of practice for osteopathic physicians extends beyond manual therapy, but their healthcare philosophy is rooted in osteopathic principles, and manual diagnosis and treatment techniques still play a strong role in both training and practice.

There are no osteopathic training programmes outside the US that qualify an individual to practise as an osteopathic physician in the US. However, American osteopathic physicians have unlimited practice rights as doctors in more than 60 countries.

Osteopathic physicians trained in Europe are medical doctors (MDs) with postgraduate training and education in osteopathic medicine. Governmental regulatory systems for osteopathic physicians exist only in the UK and France; in other countries regulation is by the general medical councils. In most EU countries medical councils accept that MDs with postgraduate qualifications in osteopathy practise osteopathic medicine as a branch of complementary medicine. Osteopathic physicians in five European countries collaborate to promote and maintain standards of osteopathic practice under the umbrella of the European Register for Osteopathic Physicians (EROP)²³ (see Chapter 3).

Osteopath

Outside the US, the development of osteopathy has followed a different path as, from early on, osteopaths were not licenced to prescribe drugs, perform surgery or assist in childbirth, yet were able to practise manual and manipulative procedures within the law.²⁴

Osteopaths in Europe and Australasia thus developed within a more limited scope of practice, concentrating on these manual techniques and the pursuit of a natural based approach to healthcare. In many countries the osteopath model suited the regulatory framework. This enabled osteopaths to practise recognised, safe manual and manipulative therapies so long as they did not purport to be medical doctors, although historically they often faced opposition from the medical profession.

Over time, osteopathic teaching programmes have become more academic and the pursuit of evidence-based medicine and best practice has been embraced as a basic tenet for the practice of osteopathy. Today much of the osteopathic philosophy is exemplified by the current terminology of the biopsychosocial approach to healthcare, growing in acceptance worldwide.

OSTEOPATH

A person who has achieved the nationally recognised academic and professional standards within his or her country to independently practice diagnosis and provide treatment based upon the principles of osteopathic philosophy. Individual countries establish the national academic and professional standards for Osteopaths practising within their countries.

(Source: OIA, derived from the American Association of Colleges of Osteopathic Medicine, Educational Council on Osteopathic Principles Glossary of Osteopathic Terminology, April 2009.)

Scope of practice varies between different jurisdictions. In several countries osteopaths operate as autonomous primary contact or 'first contact' practitioners; while in others 'diagnosis' by anyone other than a medical doctor is not allowed and osteopaths can only work on referral.

Legal recognition and regulation of osteopathy has taken place at different times and reached different stages across countries. In Australia, New Zealand and the UK osteopaths are regulated by law and practice requires registration with the relevant regulatory authority. In Australia, regulation of the osteopathic profession commenced in the 1970s and is now organised nationally. In the UK, osteopathy enjoyed public support and was practised under common law and profession-based regulation before formal statutory regulation in 1993 led to compulsory registration. In New Zealand, regulation took effect in 2004.

In other European countries and elsewhere, regulation has taken on the nuances of local legislation. For example: in Italy, osteopathy has recently been recognised as a profession, but not formally part of healthcare, following the passing of a law in December 2012; in Belgium a law legalising the practice of osteopathy was passed in 1999, but only now is the government taking steps to implement this legislation and to introduce regulation; in Germany, osteopaths work under the legal framework for

'Heilpraktiker', which provides an umbrella for those professions with primary contact not yet recognised; in Portugal, osteopathy is a recognised profession, but only recently has the Portuguese Parliament agreed to regulation; in Norway anyone may call themselves an osteopath and practise as such, because osteopathy is currently not regulated or recognised, although the profession is applying for 'authorisation'; countries where osteopathy is practised but does not have formal recognition include Austria, Cyprus, Denmark, Greece and Sweden (see Chapter 3 for more detail on recognition and regulation).²⁵

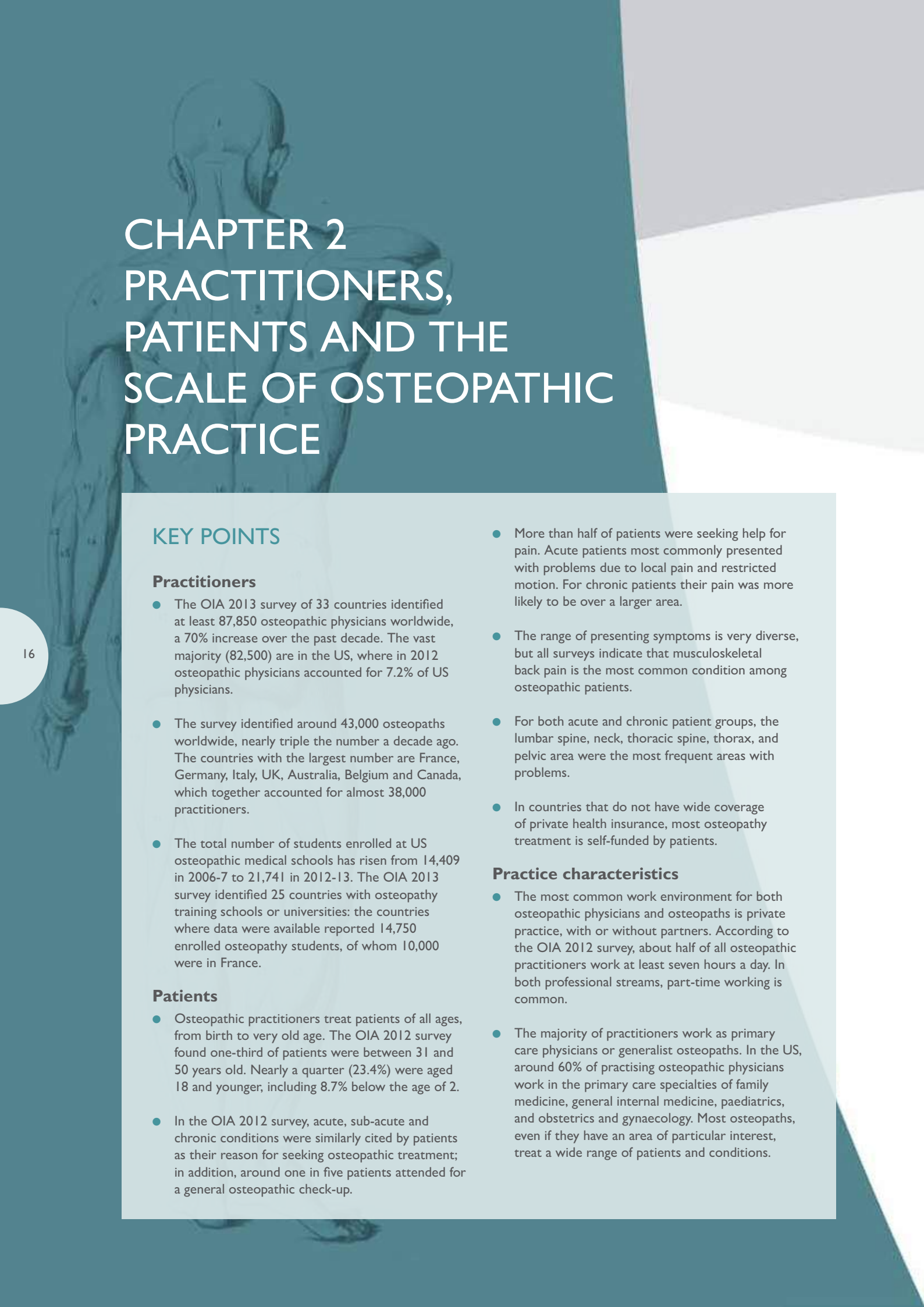
In the US, there is no licensing or registration of osteopaths who are not also qualified doctors. Osteopaths are prohibited from calling themselves osteopaths; in the states where they are allowed to practise, they are registered as massage therapists and can only work as such.

The permitted scope of practice for osteopaths in any country may be defined by specific osteopathy-related legislation and/or by laws governing who is allowed to provide other medical or healthcare services. A more detailed look at the regulation and scope of practice of osteopaths in different countries is given in Chapter 3.

The World Health Organization's 2009 resolution

The WHO's 2009 resolution (WHA62.13) on traditional medicine urged Member States 'to consider, where appropriate, including traditional medicine into their national health systems'.²⁶ How this might be done would depend on national capacities, priorities, legislation and circumstances, and evidence of safety, efficacy and quality. The resolution also urged Member States 'to consider, where appropriate, establishing systems for the qualification, accreditation or licensing of traditional medicine practitioners'.

Publication by the WHO of a series of benchmarks for basic training for selected types of healthcare practices is part of the implementation of the resolution. In the benchmark for osteopathic care, the WHO states that 'ideally, countries would blend traditional and conventional ways of providing care in ways that make the most of the best features of each system and allow each to compensate for weaknesses in the other'.²⁷



CHAPTER 2 PRACTITIONERS, PATIENTS AND THE SCALE OF OSTEOPATHIC PRACTICE

KEY POINTS

Practitioners

- The OIA 2013 survey of 33 countries identified at least 87,850 osteopathic physicians worldwide, a 70% increase over the past decade. The vast majority (82,500) are in the US, where in 2012 osteopathic physicians accounted for 7.2% of US physicians.
- The survey identified around 43,000 osteopaths worldwide, nearly triple the number a decade ago. The countries with the largest number are France, Germany, Italy, UK, Australia, Belgium and Canada, which together accounted for almost 38,000 practitioners.
- The total number of students enrolled at US osteopathic medical schools has risen from 14,409 in 2006-7 to 21,741 in 2012-13. The OIA 2013 survey identified 25 countries with osteopathy training schools or universities: the countries where data were available reported 14,750 enrolled osteopathy students, of whom 10,000 were in France.

Patients

- Osteopathic practitioners treat patients of all ages, from birth to very old age. The OIA 2012 survey found one-third of patients were between 31 and 50 years old. Nearly a quarter (23.4%) were aged 18 and younger, including 8.7% below the age of 2.
- In the OIA 2012 survey, acute, sub-acute and chronic conditions were similarly cited by patients as their reason for seeking osteopathic treatment; in addition, around one in five patients attended for a general osteopathic check-up.

- More than half of patients were seeking help for pain. Acute patients most commonly presented with problems due to local pain and restricted motion. For chronic patients their pain was more likely to be over a larger area.
- The range of presenting symptoms is very diverse, but all surveys indicate that musculoskeletal back pain is the most common condition among osteopathic patients.
- For both acute and chronic patient groups, the lumbar spine, neck, thoracic spine, thorax, and pelvic area were the most frequent areas with problems.
- In countries that do not have wide coverage of private health insurance, most osteopathy treatment is self-funded by patients.

Practice characteristics

- The most common work environment for both osteopathic physicians and osteopaths is private practice, with or without partners. According to the OIA 2012 survey, about half of all osteopathic practitioners work at least seven hours a day. In both professional streams, part-time working is common.
- The majority of practitioners work as primary care physicians or generalist osteopaths. In the US, around 60% of practising osteopathic physicians work in the primary care specialties of family medicine, general internal medicine, paediatrics, and obstetrics and gynaecology. Most osteopaths, even if they have an area of particular interest, treat a wide range of patients and conditions.

- Osteopathic manipulative treatment (OMT) is a core activity for both osteopathic physicians and osteopaths. The OIA 2012 survey found that more than a quarter of US and EU osteopathic physicians spent more than half their work time delivering OMT, although almost half said it represented less than 10% of their work. Among osteopaths, more than 90% spent more than half their time delivering OMT.
- Several different osteopathic techniques are typically used to treat a single patient. These cover rhythmic techniques, short precise impulses, joint positioning techniques and very gentle specifically applied pressures.
- Osteopathic practitioners commonly integrate osteopathic techniques with other healthcare treatments such as pain medication, standard healthcare and complementary therapies. The OIA 2012 survey found that around 39% of the last 10 acute patients were taking medication for pain in addition to osteopathic treatment, while 42% of the last 10 chronic patients were doing so.
- Physiotherapy, massage and a range of complementary medicine techniques are commonly provided in addition to osteopathy, both for acute and chronic conditions. According to the OIA 2012 survey, around 27% of patients had received at least one additional treatment.

Relationship with the wider healthcare system

- As well as examples of formal integration of osteopathic healthcare within national healthcare systems, osteopaths work constructively in parallel and in communication with physicians and other healthcare professionals.
- The OIA 2012 survey found that a majority of patients had attended consultations with doctors or other healthcare providers before presenting for osteopathic treatment. This was true both for patients of osteopathic physicians and of osteopaths.

Profession demographics

- The osteopathic profession is relatively 'youthful'. In the US, 58% of osteopathic physicians are under the age of 45. The 2012 OIA survey found that around one-third of osteopaths were below the age of 40, although there is considerable variation between individual countries.
- The proportion of female practitioners has increased. In the US, women now account for more than a third of all osteopathic physicians and in the under-35 age group women outnumber men. The OIA 2012 survey found that 48.7% of responding osteopaths were female; men are now the minority among osteopaths below the age of 30, although again there is considerable variation between individual countries.

The size and growth of the profession

Number of practitioners

Historically, data has not been collected on the overall number of practitioners worldwide so the Osteopathic International Alliance (OIA) wanted to address this gap in information about the osteopathic profession. The most reliable data on practitioner numbers comes from countries with mandatory registration for practitioners. However, these data only cover a limited number of states.

In order to obtain a more complete picture of the global size of the profession, the OIA from January to March 2013 carried out an informal survey (the OIA 2013 survey) across more than 30 countries where osteopathic healthcare was known to be practised. For each country, the survey was sent, as appropriate, to the regulator, professional associations, and principal schools and/or individual contacts.

Table 2.1 lists the data collected for the 33 participating countries and provides a snapshot of the current scale of osteopathic practice around the world. Where exact information was not available, estimates have been provided. This is the first time that data on the profession has been collected on this scale.

Data on osteopathic physicians are more complete than for osteopaths as they are registered doctors and a large majority of the world's osteopathic physicians practise in the US, where licensing was introduced early on. Overall, the OIA 2013 survey identified at least 87,850 osteopathic physicians worldwide, of whom the vast majority (82,500) are in the US.

Assessing the total number of osteopaths globally is more difficult as many countries do not regulate and/or register the profession so the aggregated data includes a number of estimates. Overall, the OIA 2013 survey identified around 43,000 osteopaths worldwide. In nominal terms, the countries with the largest number are France, Germany, Italy, UK, Australia, Belgium and Canada, which together account for almost 38,000 practitioners. When the number of osteopaths is compared as a proportion of the population, the countries with the highest proportion of osteopaths are France, Belgium, Switzerland, New Zealand and Italy.

Globally, osteopathic physicians outnumber osteopaths overall. However, outside the US, the number of osteopaths worldwide is about eight times the number of osteopathic physicians.

The OIA 2013 survey was not exhaustive and some countries did not respond. The UK Register of Osteopaths held by the General Osteopathic Council includes registrants who are resident and practising outside the UK, including in 20 countries not included in the OIA 2013 survey, illustrating minor pockets of practice for instance in the Far East, Middle East and Caribbean. Taken together, as mentioned in Chapter 1, these data demonstrate that osteopathic healthcare is practised in more than 50 countries overall.

Growth of the profession

The OIA 2013 survey also asked for data or estimates of the number of practitioners 10 years ago. These data were less robust because data collection was less active a decade ago, but the available figures confirm the significant growth in both branches of the profession. Ten years ago there were around 51,300 osteopathic physicians, compared with the survey's current figure of 87,850; this represents a growth of more than two-thirds (71.9%) in the number. Similarly, the survey responses suggest there were around 14,400 osteopaths in the participating countries, compared with the current figure of around 43,000; this means the number of osteopaths worldwide has nearly tripled over the past decade.

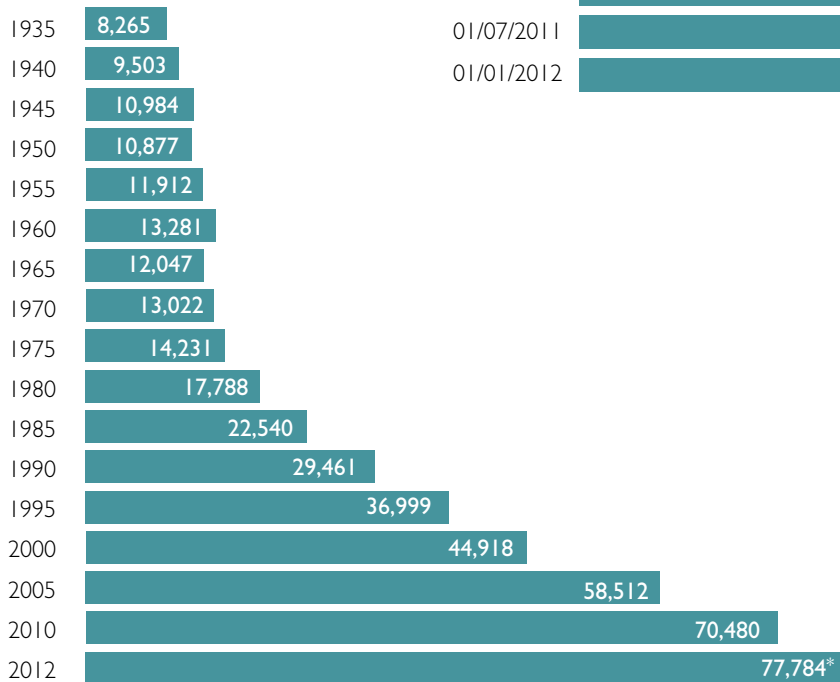
Table 2.1 Number of osteopathic practitioners by country

Country	Osteopathic physicians	Osteopaths	Total no. of practitioners, per 100,000 of population*	Data sources
Australia		1,725	7.8	Osteopathy Registrant Data at December 2012; Osteopathy Board of Australia
Austria	30	c. 500-600	6.1-7.3	Estimated
Belgium		1,539	14.7	Social Security Instances
Brazil		47	0.02	Registro Brasileiro dos Osteopatas
Canada	20	c. 1,500	2.4	COA membership; estimated
Croatia		c. 16	0.4	Estimated
Cyprus		c. 11	1.0	Estimated
Denmark	15	40	0.7	Estimated; Danish Association of Osteopaths
Egypt		c. 35	0.04	Estimated
Finland		c. 300	5.7	National Authority for Medicolegal Affairs
France	1,600	17,460	28.9	Directorate for Research, Studies, Assessment, and Statistics (DREES), September 2012 data
Germany	2,300	c. 5,000-7,000	9.0-11.5	BDOÄ; DAAO; VOD; BVO estimated
Greece		30	0.3	Greek Osteopathic Association
Ireland		120	2.5	OCI
Israel		c. 75	1.0	Estimated
Italy	50	c. 5,000-6,000	8.1-9.8	Estimated
Japan		275	0.2	Japan Osteopathic Federation
Luxembourg		Over 40	7.8	ALDO
Malta		1	0.2	Personal communication
Namibia		1	0.05	Personal communication
Netherlands		630	3.7	Dutch Register
New Zealand		c. 400	9.2	Registration data
Norway		250	5.3	NOF and estimates
Poland		30	0.1	Osteon Polish Academy of Osteopathy
Portugal		c. 400	3.7	Estimated
Russia	c. 1,300		0.9	Estimated
Singapore	26		0.5	Personal communication
Spain		c. 600-800	1.3-1.7	Estimated
South Africa		49	0.1	Registration data
Sweden	1	c. 200	2.2	Swedish Osteopathic Association and estimate
Switzerland	38	c. 850	10.6	SAGOM and estimated; FSO-SVO, CDS
UK	Unknown small number	4,211	6.6	GOSC Register (only those resident in UK)
US	82,500		24.6	AOA Osteopathic Medical Profession Report 2012. (31 May 2012). This includes an estimated 4,773 osteopathic medical school graduates in 2012.

* Population data taken from the CIA World Factbook

Figure 2.1 Number of Osteopathic Physicians in the US (1935-2012)

Data at 31 May 2012 (Source: American Osteopathic Association)²⁸



*The number does not include the 2012 osteopathic medical school graduates. Including an estimated 4773 graduates, there are more than 82,500 DOs in the United States

Figure 2.2 Number of osteopaths in France (2000-2012)

(Source: Direction de la recherche, des études, de l'évaluation et des statistiques (DREES))

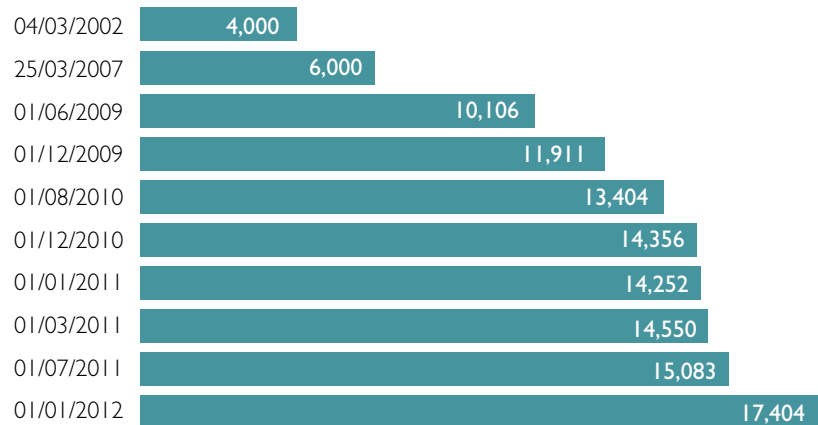
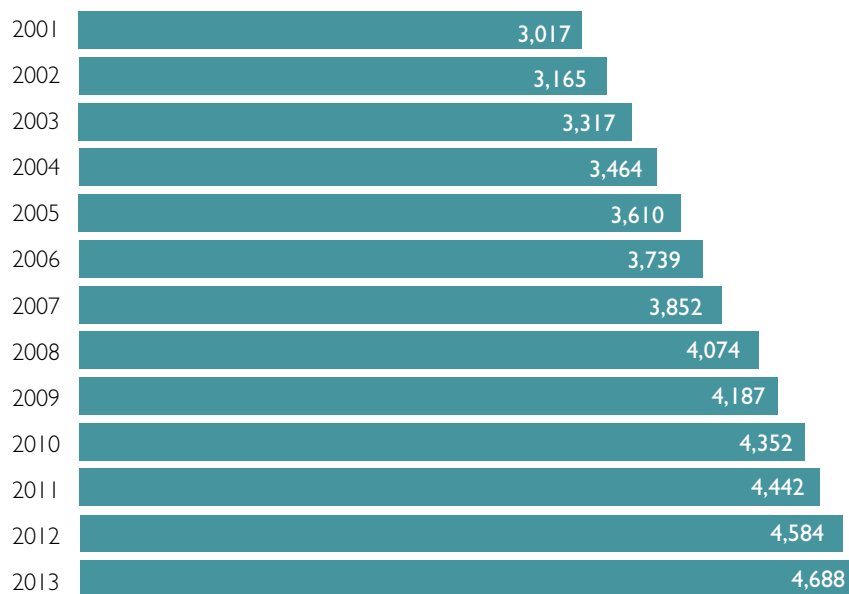


Figure 2.3: Number of UK registered osteopaths (2001-2013)

(Source: General Osteopathic Council, UK)



Until robust aggregated global data are available, specific national examples provide the best detailed accurate evidence of the growing scale of osteopathic medicine and osteopathy. Figure 2.1 shows how osteopathic physicians have been one of the fastest growing groups of healthcare professionals in the US since the mid-1970s. In 2012 osteopathic physicians accounted for 7.2% of the total actively licensed US physician population²⁹ By 2020, more than 100,000 osteopathic physicians are expected to be in medical practice in the US.

In France, the number of osteopaths more than quadrupled between 2000 and 2012 (Figure 2.2). Turning points were in 2002 when the Kouchner law recognised the profession of osteopathy, and in 2007 when decrees were passed to regulate osteopathic practice.

In the UK, the number of registered osteopaths has risen from around 3,000 at the beginning of 2001 (when the Register had completed its start-up phase) to 4,670 osteopaths in mid-2013 (Figure 2.3).³⁰

Unlike the figure in Table 2.1, this number includes General Osteopathic Council (GOsC) registrants who are resident outside the UK. These are often (but not exclusively) people who have trained in the UK and then gone to practise abroad mostly in unregulated countries where they use their UK registration as a 'quality mark'. The GOsC registrant number compares with over 250,000 doctors registered with the UK's General Medical Council in 2013.

In Australia, the osteopathic profession is the fastest growing allied health profession: the number of registered osteopaths has increased from 257³¹ in 1996 to 1,725³² at the end of 2012 (excluding those who have not renewed their registration).

The osteopathic student population

Today's student osteopathic physicians and osteopaths are the next generation of osteopathic healthcare professionals so data on the student population provide a guide to how the size and profile of the profession will continue to evolve.

The OIA 2013 survey asked about the number of schools of osteopathic healthcare in each country and, where applicable, the current number of students.

Student and graduate osteopathic physicians

Countries have their own traditions of higher education leading to practise as physicians in osteopathic medicine. In US, the pathway is a degree in osteopathic medicine; elsewhere a physician with an MD will undertake postgraduate training in osteopathy before qualifying or working as an osteopathic physician. Some countries, such as Canada and Switzerland, recognise osteopathic physicians but have no schools or universities for this branch of the profession, so individuals seeking to enter the profession must train abroad.

In the US, there are currently 29 osteopathic medical schools that will be operating at 37 sites across 28 states during the 2013-14 academic year.³³ Demand for places at US osteopathic medical schools is strong: for 2012 entry, applications to osteopathic medical schools were 6.3%³⁴ higher than the previous year; compared with a 3.1%³⁵ increase for MD programme applicants. Entry requirements in terms of grades are the same for both types of programme.

The total number of students enrolled (across all student years) at US osteopathic medical schools has risen from 14,409 in 2006-7 to 21,741 in 2012-13.^{36,37}

As a result, the number of osteopathic physicians graduating from university has seen its fastest ever growth in recent years (Figure 2.4). Following a steady increase over the past 50 years, women currently account for 46% of the total number of students at US osteopathic medical schools, although there has been gradual decline from the peak of just over 50% in 2006/7 (see 'profession demographics' page 53).

According to the OIA 2013 survey, there are around 2,500 osteopathic physician students in France, attending 51 private schools and 14 universities. In Germany, there are around 1,500 medical doctors in osteopathic training, most of whom attend the five pure osteopathic physician schools, while fewer than 200 receive training at osteopathy schools.

The different models for osteopathic physician education and training are discussed in detail in Chapter 3.

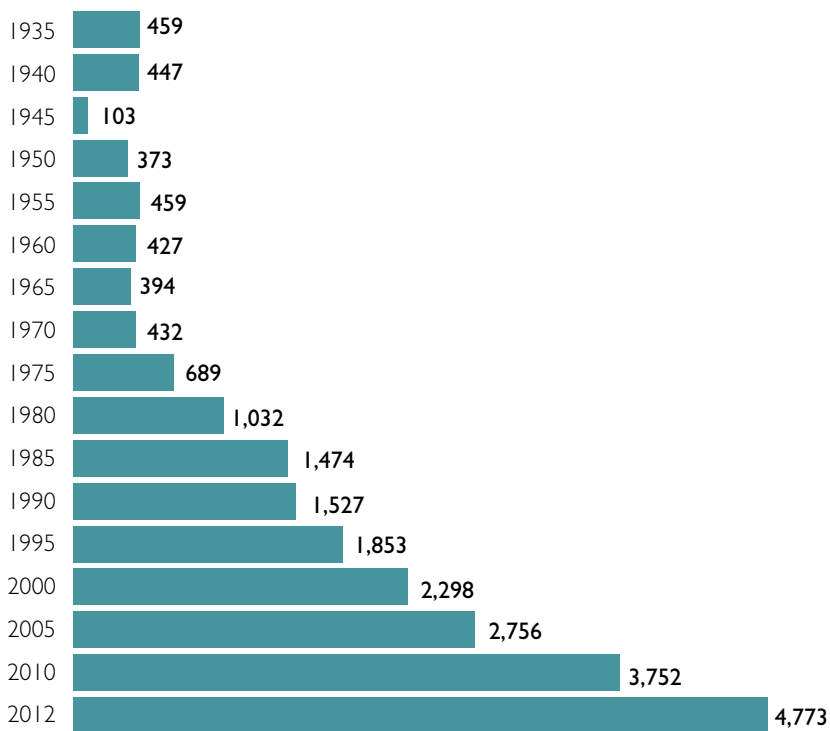
Student osteopaths

The OIA 2013 survey counted 25 countries with osteopathy training schools or universities. Not all countries provided student numbers but data from those that did showed around 14,750 currently enrolled osteopathy students, of whom around 10,000 were in France.

A number of countries, including some that recognise osteopathy, do not currently have training courses so students have to go abroad to study. In South Africa, for instance, where osteopaths are regulated by the Allied Health Professions Council on a model similar to UK/Australia/New Zealand, there are 49 osteopaths; as there is no school, this would imply they trained elsewhere and then returned to South Africa to set up practice.

Figure 2.4 Total US osteopathic medical school graduates per year (1935-2012)

(Source: American Osteopathic Association³⁸)



Entry level qualifications

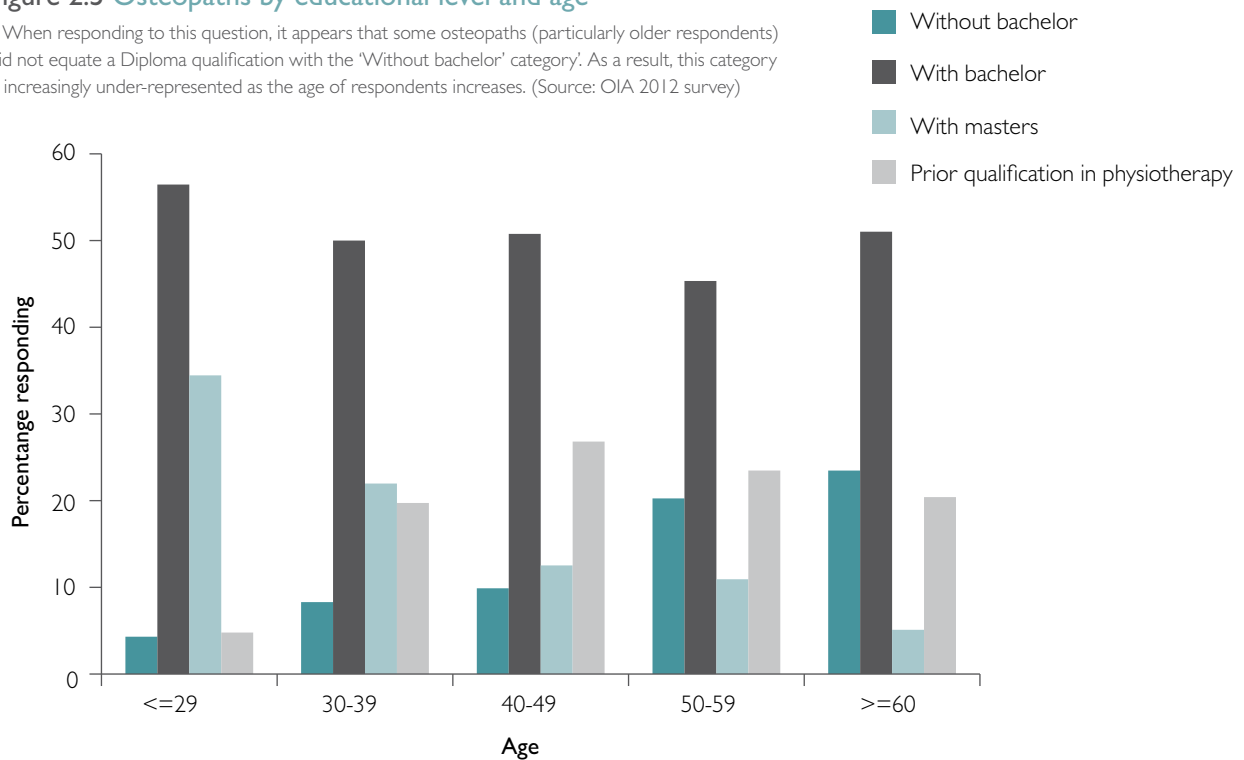
All osteopathic physicians must complete undergraduate and postgraduate medical studies. As mentioned earlier, in the US the pathway is a degree in osteopathic medicine; elsewhere a physician with an MD will undertake postgraduate training in osteopathy before qualifying or working as an osteopathic physician.

For osteopaths, the required education and training varies between different countries, depending on the regulatory regimes, but some overall trends are clear:

- Osteopaths are being educated to a higher academic level than in previous decades. Data from the OIA 2012 survey (see page 25 for details of this survey) reflects how a majority of younger respondents are now graduates or postgraduates; nearly 90% of those under the age of 30 fall into this group (Figure 2.5). This is less true for older osteopaths; among those aged 60 and over, around 55% had a Bachelor or Master's degree. In some countries, entrants to osteopathy are now required to have a degree qualification (see Chapter 3).

Figure 2.5 Osteopaths by educational level and age*

* When responding to this question, it appears that some osteopaths (particularly older respondents) did not equate a Diploma qualification with the 'Without bachelor' category'. As a result, this category is increasingly under-represented as the age of respondents increases. (Source: OIA 2012 survey)



- Figure 2.5 also demonstrates how over the past 20 years or so it has become far less common for physiotherapy to be a route into osteopathy. For many years this was the traditional pathway into osteopathy in much of Europe, but it began to decline around 1990 when some schools in France, Italy and Switzerland began full-time osteopathy programmes for students with no previous healthcare training. In the OIA 2012 survey, the 'post-

physiotherapy' route was taken by less than 5% of the responding osteopaths under the age of 30, a lower proportion than for the older generation of osteopaths who trained in an era when osteopathy was less widely recognised as an independent profession. However, it should be noted that this 'post-physiotherapy' route has never been a significant contributor in countries like Australia, New Zealand or the United Kingdom.

While these trends in osteopathic education are clear, the OIA 2012 survey data as a whole also suggest that an osteopath's approach to practice, the patients treated and treatment outcomes do not vary much with educational level.

The different models for osteopathy education and training are discussed in detail in Chapter 3.

Osteopathic patient care

The most extensive data on osteopathic care patients come from the OIA 2012 survey carried out for Stage 2 of the OIA's Status Report on Osteopathy. The survey was drawn up in collaboration with the World Health Organization (WHO) and its results were presented and discussed at an OIA-WHO Working Meeting in Paris in September 2012.

This survey aimed to create a 'snapshot of the practice of the profession',³⁹ with questions that asked practitioners about their most recent 10 patients (or 20, for some question topics). Overall there were 1,821 responses worldwide from osteopathic physicians (333) and osteopaths (1,488), covering 18,210 patients in detail, making it the largest survey to date on osteopathic care patients.* This chapter reports the OIA 2012 survey results as well as examples of other available national data.

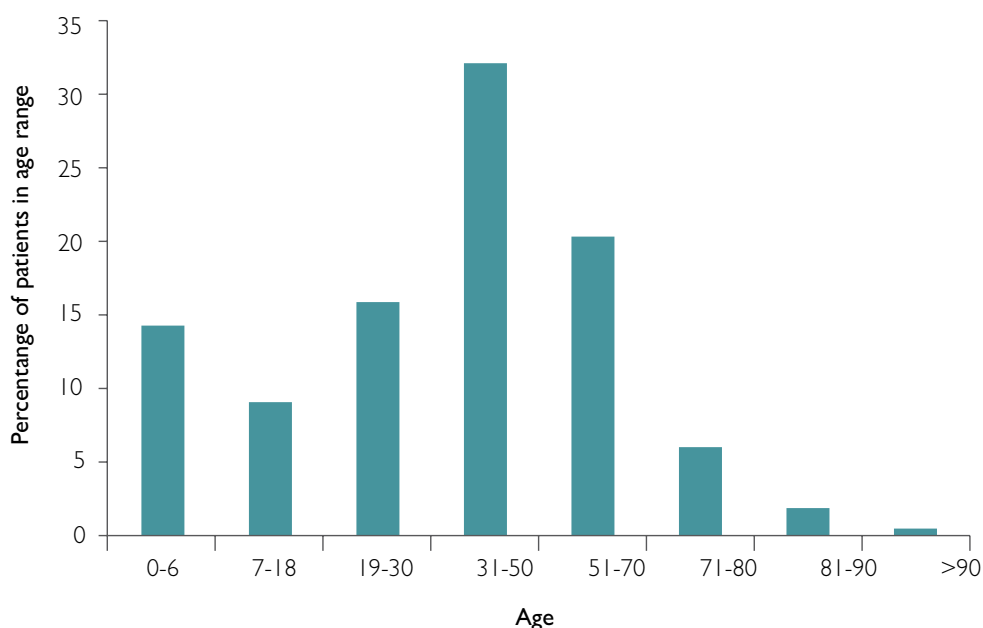
Age and gender of patients

Osteopathic practitioners treat patients of all ages, from birth to very old age. The OIA 2012 survey illustrates the spread of patients by age (Figure 2.6). In this sample, nearly a quarter (23.4%) of patients were aged 18 and younger, including 8.7% below the age of two years (i.e. 0-1 years). Around one-third of all patients were between 31 and 50 years old. Patients of osteopathic physicians and osteopaths had similar age profiles (Figure 2.6 shows the data for the combined population).

Figure 2.6 Age of osteopathic care patients (10 most recent patients)[†]

[†]The 31-50 year old age range could not be split due to categories used in the original data collection.

(Source: OIA 2012 survey)



* Survey respondents were in North America, South America, Europe (including Russia), Australasia, and Japan.

A number of national surveys of osteopathy patients have found similar age and gender profiles (Figures 2.7a-c). Overall, the data show there are more female than male patients and, while working age adults account for the majority of patients, a significant patient group is infants under the age of one year.

- In the UK, around 30,000 people currently consult osteopaths every working day.⁴⁰ A UK survey in 2009 of 1,630 patients reported 56% per
- cent were female and 43% male, with the majority between 30 and 59 years of age. Almost two-thirds of the child patients aged 0-9 years were babies of 0-12 months (Figure 2.7a).⁴¹
- A 2004 Australian survey of 2,238 patients (published in 2009) similarly found 63% of patients were female, and 46% were aged 30-49, with an overall age range from birth to over 80 years old (Figure 2.7b).⁴²
- A survey of 1,556 French patients found almost two-thirds (61.5%) were female and that 12% of women patients of childbearing age were pregnant; overall the age profile of the French sample was very similar to other studies, but with a more pronounced peak for young babies (Figure 2.7c).⁴³
- A survey of 241 osteopathic practitioners in Quebec, Canada looked at all patients over a two-week period: 62.4% were women, 27.3% men, and 10.3% children (no further breakdown was given).⁴⁴

Figure 2.7a UK osteopathy patients

(Source: Fawkes C, Leach J, Mathias S, Moore A (2010) The Standardised Data Collection Project – Standardised data collection within osteopathic practice in the UK: development and first use of a tool to profile osteopathic care in 2009. London: National Council for Osteopathic Research.)

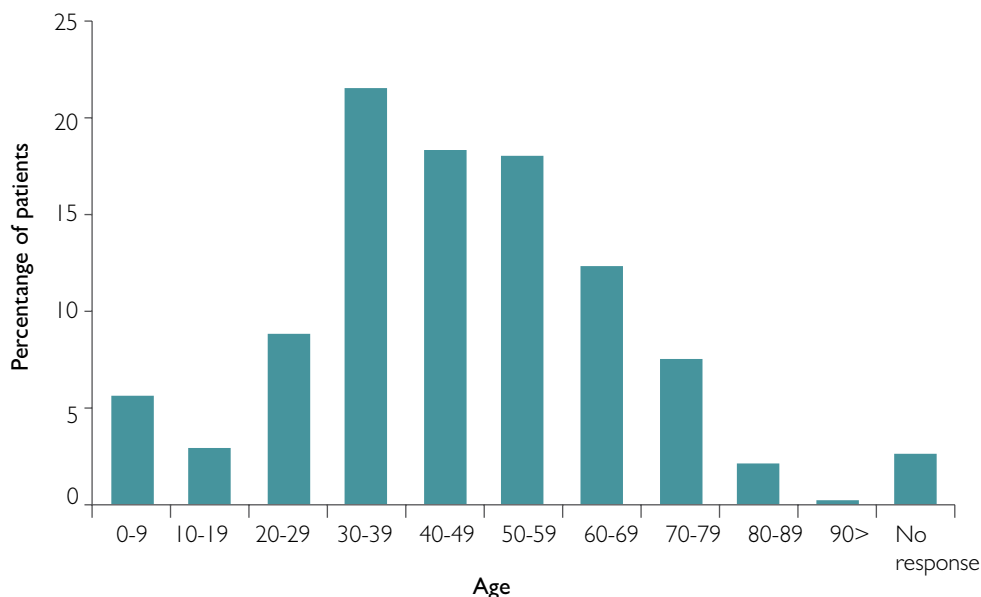


Figure 2.7b Australian osteopathy patients

(Source: Orrock P (2009) Profile of members of the Australian Osteopathic Association: Part 2 – The patients. International Journal of Osteopathic Medicine.)

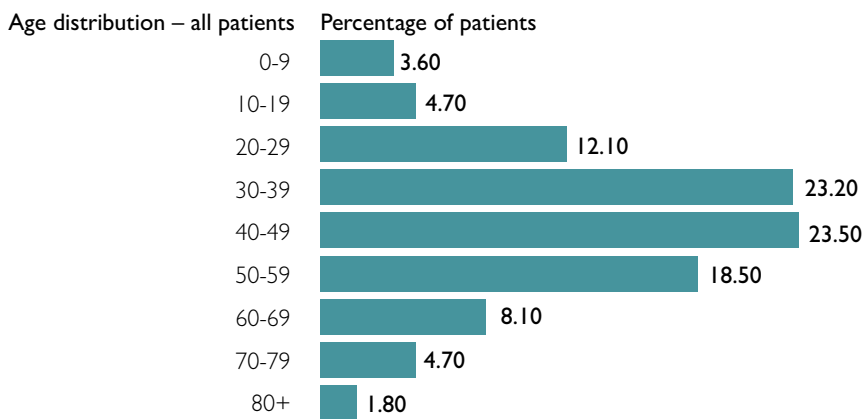
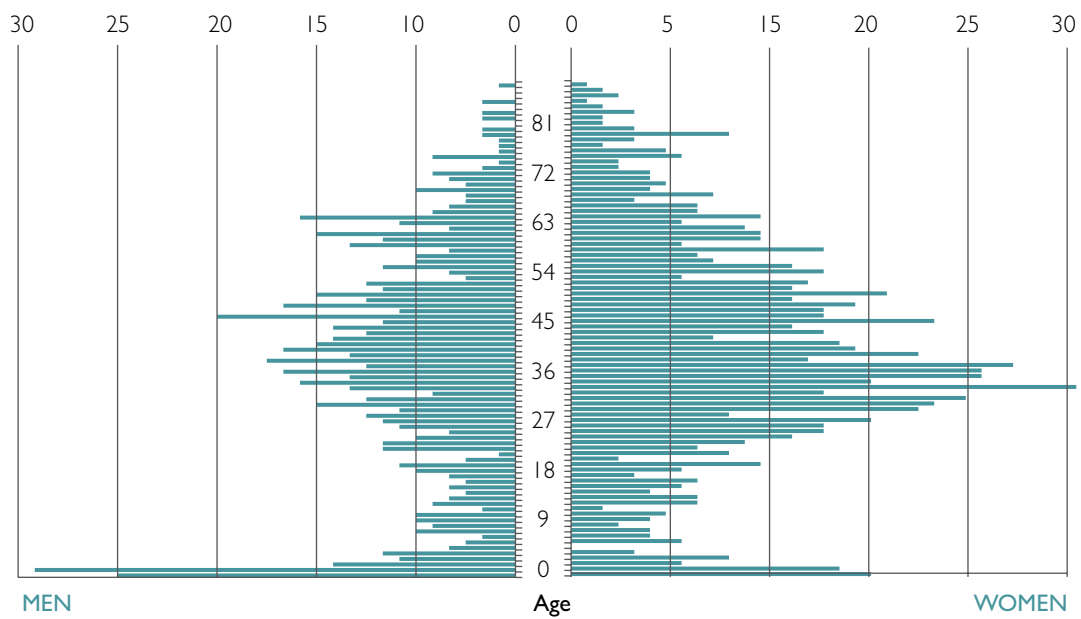


Figure 2.7c French osteopathy patients (survey of 1556 patients)

(Source: T. Dubois, J. Berthiller, J. Nourry, G. Landurier, F. Briere, S. Chardigny, et al. Douleurs en cabinet d'ostéopathie : étude prospective descriptive des motifs de consultations des patients consultant en cabinet d'ostéopathie. Douleur. 2012; Volume 13; Pages A59-A60.)



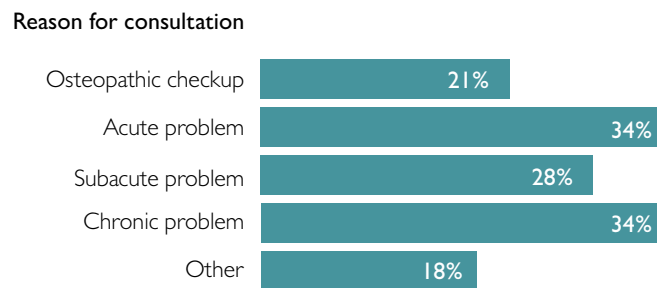
Patients' reasons for seeking osteopathic care

Recent, medium and long-term health problems are all important when deciding on treatment. According to the OIA 2012 survey, acute, sub-acute and chronic conditions were all cited by similar proportions of patients as their reason for seeking osteopathic treatment; in addition, around one in five patients attended for a general osteopathic check-up (Figure 2.8). There was little difference between responses from patients of osteopathic physicians and those of osteopaths.

While not inconsistent with the OIA results, two national surveys from Europe covering osteopathy patients both found a higher proportion (around half) of patients seeking treatment had acute conditions. In the UK, acute onset conditions accounted for 37% of patients, with a further 14% of patients suffering an acute traumatic onset.⁴⁵ In France, acute onset accounted for 26% of patients and acute post-traumatic for 20%; sub-acute conditions (24%), chronic (20%) and general check-ups (9%) accounted for the remainder of the French patients.⁴⁶

Figure 2.8 Overall patient reason for consulting an osteopathic practitioner (10 most recent patients)

(Source: OIA 2012 survey)



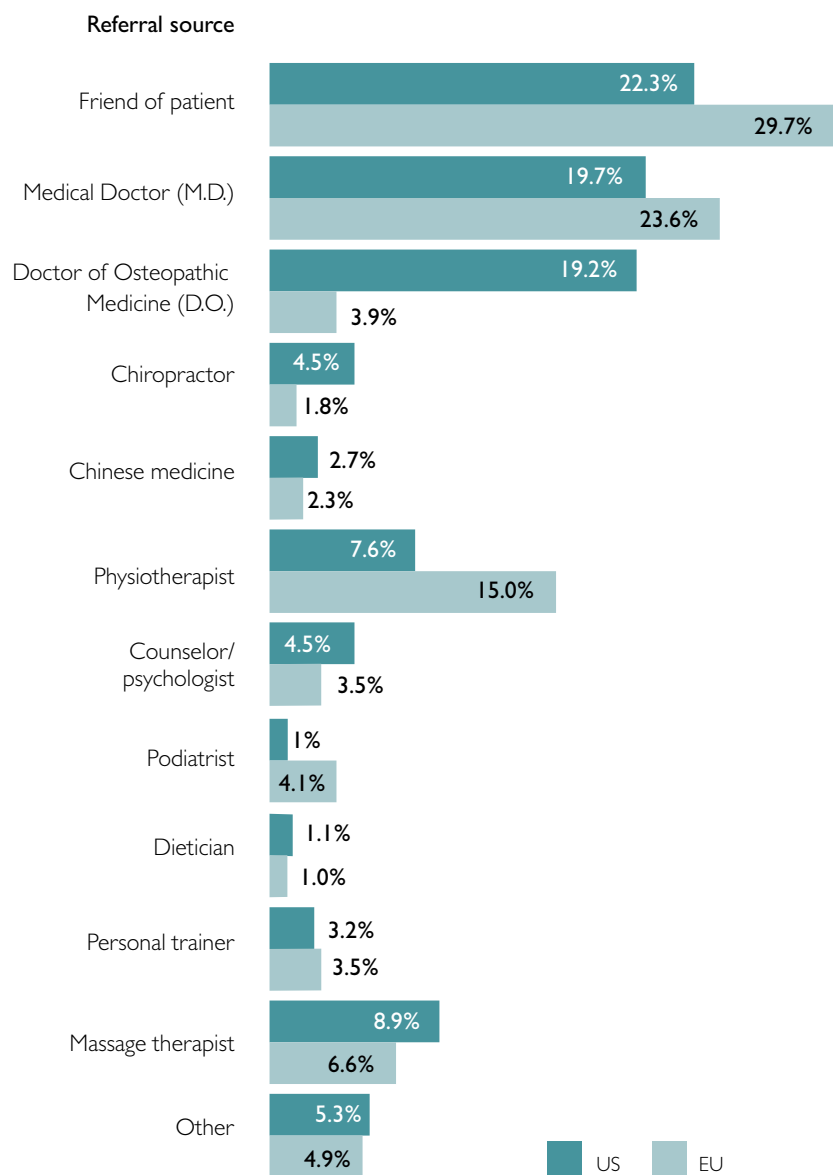
Patient pathways to osteopathic care

The various routes that lead patients to osteopathic healthcare demonstrate its place within the network of healthcare disciplines. The OIA's 2012 survey of osteopathic practitioners recorded who had referred or recommended patients for osteopathic treatment.

For patients of US and European osteopathic physicians, referrals were mainly through friends or other physicians (in the US a relatively large number of referrals came from other osteopathic physicians (DOs)). A wide range of non-physician healthcare and health-related practitioners accounted for other channels of access (Figure 2.9).

Figure 2.9 Recommendations and referrals to osteopathic physicians in the US and Europe (10 most recent patients)

(Source: OIA 2012 survey)

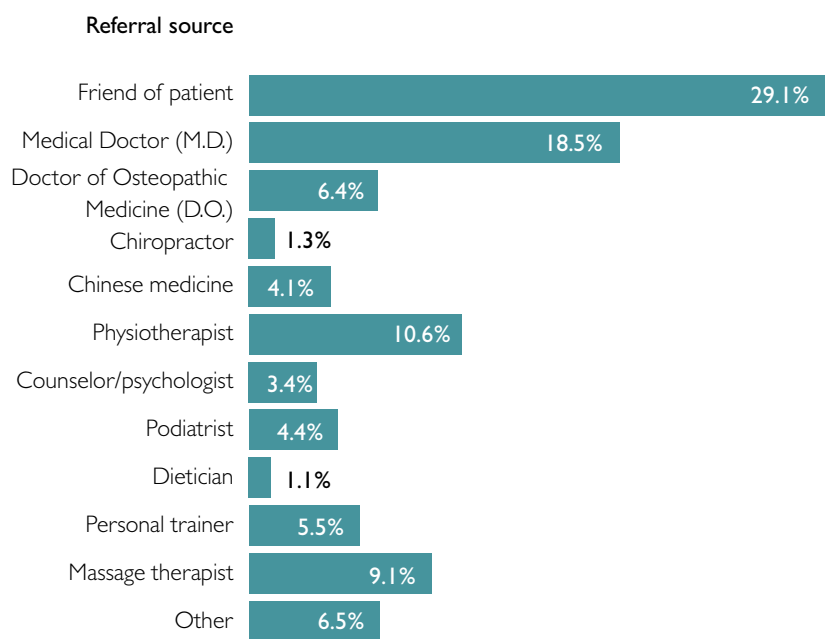


A similar pattern was found for patients visiting osteopaths, except for a lower overall level of referrals from osteopathic physicians (DO), largely due to their smaller number outside the US (Figure 2.10). Again the OIA 2012 survey data appear to confirm that osteopaths are well embedded in the broader community of healthcare and health-related professionals across a wide range of countries.

A separate national survey of patients in the UK found that almost 80% had self-referred themselves to the osteopath, but a significant minority overall had been referred by other health professionals including general practitioners (6.3%), NHS consultants (0.2%) and other healthcare practitioners (5.5%).⁴⁷ In this study, referral by family and friends accounted for just 2.4%, suggesting that the interpretation of what was meant by 'referral source' may have been different to the OIA 2012 survey. Australian Osteopathic Association membership survey data from 2009 and 2012 consistently showed around 90% of patients had self-referred themselves to an osteopath.⁴⁸

Figure 2.10 Recommendations and referrals to osteopaths (10 most recent patients)

(Source: OIA 2012 survey)

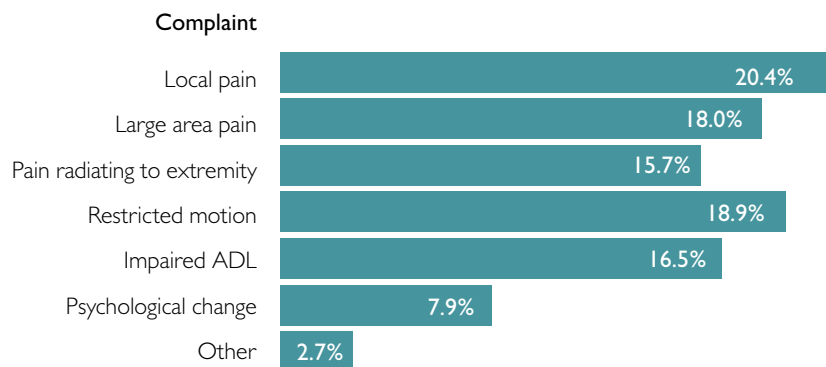


Patients' general health complaints when seeking osteopathic treatment

Responses to the OIA 2012 survey's query about the general type of complaint presented by patients were similar across osteopathic physicians and osteopaths and are illustrated for all respondents in Figure 2.11, covering patients with both acute and sub-acute/chronic conditions. More than half of patients were seeking help for pain. Acute patients most commonly presented with problems due to local pain and restricted motion. The pattern differed slightly for chronic patients in that their pain was more likely to be over a larger area.

Figure 2.11 General health complaints of most recent 10 acute and 10 sub-acute/chronic patients

(Source: OIA 2012 survey)



Physical location of presenting health complaints

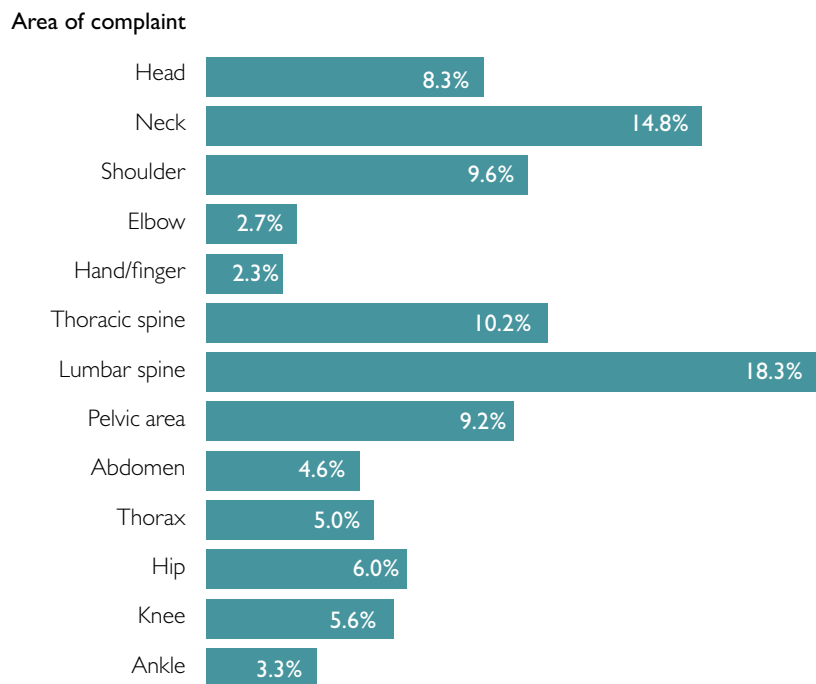
There have been a number of studies into the specific anatomical location of the health condition that leads patients to seek osteopathic care. The range of presenting symptoms is very diverse, but all surveys indicate that musculoskeletal back pain is the most common condition among osteopathic patients.

The OIA 2012 survey found a similar profile of complaints across osteopathic physicians and osteopaths, and for acute and chronic condition patients (Figure 2.12). For both acute and chronic patient groups, the lumbar spine, neck, thoracic spine, thorax, and pelvic area were the most frequent areas with problems.

Data from national osteopathy patient surveys in the UK, France, Australia and Canada show similar overall results to each other. Patients present with a wide range of symptom areas but practitioners predominantly treat musculoskeletal conditions, with the lumbar spine and neck (cervical spine) the most common area of symptoms.

Figure 2.12 Anatomical area of complaints of most recent 10 acute and 10 sub-acute/chronic patients

(Source: OIA 2012 survey)



- In the **UK**, the lumbar spine accounted for 36% of presenting symptoms, with the neck, sacroiliac/pelvis/groin, shoulder and thoracic spine comprising a further 36% of the conditions treated by osteopaths.⁴⁹
- In **France**, musculoskeletal pain accounted for 62% of consultations, with 43% of patients suffering from lumbar, cervical, dorsal spine/thorax, sacroiliac/gluteal or general spinal pain.⁵⁰
- In the 2004 patient survey in **Australia**, the most common first presenting symptoms (patients could list up to three symptoms) were lumbar spine pain (27%); neck pain (25%); and headaches (10%). The majority of patients had two presenting symptoms, usually a mixture of pain in the low back and neck, with a smaller presence of thoracic spine pain and immobility as well as headaches.⁵¹
- A patient survey in **Quebec, Canada**, also found 70% of patients consulted an osteopath because of musculoskeletal pain, in particular lumbar and cervical. In addition, functional problems (digestive in adults and children, headaches and migraines, fatigue, chronic pain) were also represented.⁵²

Osteopathic care of children

Children, particularly young babies, make up a distinct proportion of osteopathic patients, as detailed in the section on 'Age and gender' page 25. One study has looked in detail at the characteristics of patients under 18 years and their use of osteopathic manipulative treatment in the US.⁵³

A total of 407 patients and 1,500 clinic visits were included and the age profile showed that almost half (46%) of the children were under five years. Diagnoses covered a wide range of common paediatric conditions; overall, 43.5% of visits covered non-musculoskeletal diagnoses (Table 2.2).

Table 2.2 Age at first visit of children seen in US osteopathic manipulative medicine clinics

Patient Age Group	% of child patients	Percentage of all clinic visits for each age group with non-musculoskeletal diagnoses (%) [*]
Infant, 0-11 months	15.2%	33.7%
Preschool, 1-4 years	30.7%	64.0%
School, 5-12 years	31.2%	48.8%
Adolescent, >12 years	22.9%	17.9%

^{*} Data include only clinic visits with diagnoses other than somatic dysfunction (Source: Lund G, Carreiro J (2010) Characteristics of Pediatric Patients Seen in Medical School-Based Osteopathic Manipulative Medicine Clinics. *Journal of the American Osteopathic Association*. 110(7):376-380.)

The profile of paediatric conditions varied for each age group. For instance, for babies under the age of one, more than two-thirds of clinic visits were for the musculoskeletal diagnoses of torticollis or skull/face deformity, whereas for children aged 1-4 years the most common condition was otitis media, and for older children headache, scoliosis and lumbar back pain were the most prominent (Table 2.3). Overall, the profile of diagnosed conditions, particularly for children up to the age of 12, was distinct from that for adults.

Table 2.3 Diagnoses for children seen in US osteopathic manipulative medicine clinics, by age group

Diagnoses for patients aged 0 to 11 months (n=196)*

Diagnosis	Visit count, no. (%)
Most frequent non-musculoskeletal diagnoses	
Otitis media	24 (12.2)
Feeding problem	11 (5.6)
Gastroesophageal reflux disease	9 (4.6)
Fussy infant/baby	7 (3.6)
Abdominal pain	5 (2.6)
Most frequent musculoskeletal diagnoses	
Torticollis	74 (37.8)
Skull or face deformity	61 (31.1)
Muscle spasm	9 (4.6)
Abnormality of gait	2 (1.0)
Cervicalgia, dislocated elbow or myalgia	1 (0.5) each

Diagnoses for patients aged 1 to 4 years (n=433)*

Diagnosis	Visit count, no. (%)
Most frequent non-musculoskeletal diagnoses	
Otitis media	149 (34.4)
Upper respiratory infection	24 (5.5)
Behavioural problems	15 (3.5)
Sleep disturbance	14 (3.2)
Asthma	9 (2.1)
Most frequent musculoskeletal diagnoses	
Skull or face deformity	68 (15.7)
Torticollis	33 (7.6)
Head injury	11 (2.5)
Muscle spasm	11 (2.5)
Abnormality of gait	7 (1.6)

* Data include only clinic visits with diagnoses other than somatic dysfunction

Table 2.3 Diagnoses for children seen in US osteopathic manipulative medicine clinics, by age group (continued)

Diagnosis For Patients Aged 5-18 (n=742)*

Diagnosis	Visit count, no. (%)
Most Frequent Non-musculoskeletal Diagnosis	
Headache	106 (14%)
Otitis Media	66 (8%)
Behavioral issues	58 (7.8%)
Asthma	18 (2.4%)
Celiac disease	12 (1.6%)
Most Frequent Musculoskeletal Diagnosis	
Scoliosis	108 (14.5%)
Lumbar Back Pain	91 (12%)
Neck Pain	85 (11.4%)
Thoracic Back Pain	68 (9.2%)
Unequal leg Length	42 (5.7%)

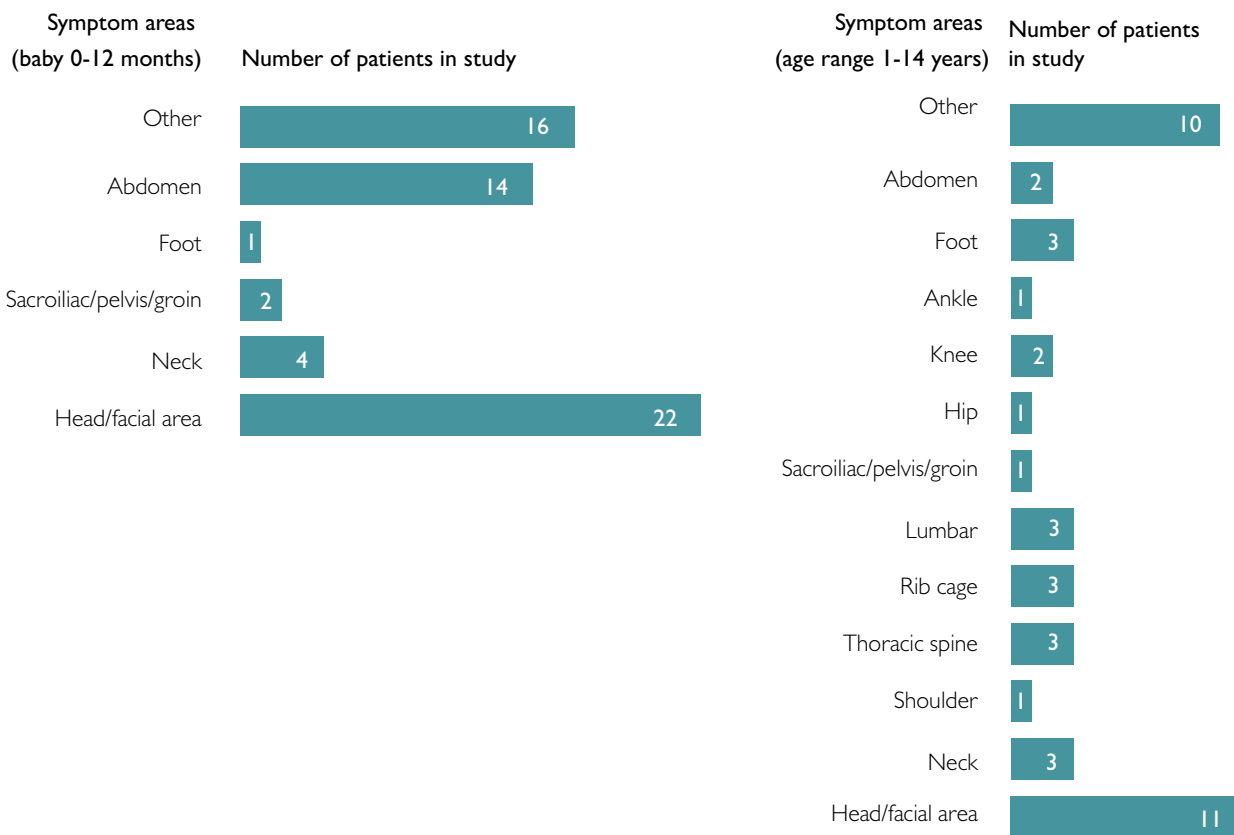
* Data include only clinic visits with diagnoses other than somatic dysfunction

(Source: Lund G, Carreiro J (2010) Characteristics of Pediatric Patients Seen in Medical School-Based Osteopathic Manipulative Medicine Clinics. *Journal of the American Osteopathic Association*. 110(7):376-380.)

In the UK, the NCOR survey similarly looked at symptoms and treatment for babies and children up to the age of 14 years, although the numbers were relatively small.⁵⁴ The older teenagers 15-19 had a more 'adult profile' of symptoms so were not included. Again, the head/facial area was the most common symptom area, although abdomen was also prominent for young babies (Figure 2.13). Symptoms under 'other' included feeding disorders, sleep disturbance, colic symptoms, and continuous crying.

Figure 2.13 Symptom areas of UK osteopathy patients under the age of 15

(Source: Fawkes C, Leach J, Mathias S, Moore A (2010) The Standardised Data Collection Project – Standardised data collection within osteopathic practice in the UK: development and first use of a tool to profile osteopathic care in 2009. London: National Council for Osteopathic Research.)



How much is spent?

There is only very limited national data on actual total annual expenditure on osteopathic healthcare.

A detailed recent analysis in Australia of the economic importance of the osteopathy profession estimated that Australian patients in 2011-12 spent around A\$210m (US\$216m)* on osteopathic services, based on an estimated 2.34 million patient visits over the year. Given the variations, for instance in fees charged, the total actual amount is likely to be in the range of A\$180m (US\$185m) to A\$247m (US\$254m).⁵⁵

This gross figure is unadjusted for any amounts subsequently refunded by government and insurance schemes (see next section) and compares with more than A\$124bn for total (government and non-government, not including capital expenditure) recurrent health expenditure in 2010-11. In terms of privately funded health services in Australia, osteopathic services, on the basis of net expenditure by individuals treated, are estimated in 2011-12 to have made up about 1% of total recurrent health expenditure by individuals.⁵⁶

In the UK, KPMG in 2013 estimated the size of the UK osteopathy market at £288m to £487m, depending on assumptions about the average number of hours worked per week.⁵⁷

Who pays, and does health insurance cover osteopathic healthcare?

Healthcare funding regimes vary significantly between countries, as does the extent to which private health insurance plays a role in the healthcare market. These differences feed through to the way osteopathic care is funded. In countries that do not have a tradition of private health insurance, most osteopathy is self-funded by patients.

United States

Treatment by osteopathic physicians in the US is covered by private health insurance schemes and government health schemes, with parity with other doctors. Thus, in addition to private insurance companies, osteopathic physicians are eligible for participation and reimbursement from managed care companies and all state and federal government agencies, such as Medicare and Medicaid. In 2011, Medicare payments for all physician services totalled \$97.9 billion.⁵⁸ The proportion relating to services provided by osteopathic physicians was not itemised, but osteopathic physicians made up 7.2%⁵⁹ of the physician population in the US in 2012.

Australia

In Australia, individual patients may be able to reclaim the cost of osteopathy through the Chronic Disease Management (CDM) programme introduced in 2004 by Medicare (the country's government funded public health scheme); or through private medical or other insurance; or have their fees paid under government programmes such as that for retired military personnel. The principal sources of funding are: private health insurance Medicare rebates; claims under workers' compensation programmes; compulsory third party (motor vehicle) insurance claims and; payments by the Department of Veterans Affairs.⁶⁰

A Medicare claim requires a referral from a general practitioner prior to the initial consultation and covers up to five individual osteopathic services per year. Once referred the osteopath manages the osteopathic care plan. The value of osteopathy claims has risen sharply since the CDM programme was introduced. In recent years, claims/benefits paid have risen by around 20% a year. In 2011-12 there were 86,359 claims for osteopathy and benefits paid out totalled A\$4.5m.⁶¹

* Using April 2013 exchange rates.

All major private health insurers in Australia will cover part of the cost of osteopathic treatment, although the level of coverage varies between companies. The value of claims has increased since the mid-1990s, with a big jump since mid-2007 as a result of a policy change by a major private insurer. In 2011-12, claims for osteopathic services to private health insurers totalled nearly 750,000, with associated benefits of A\$24m paid out for claims.⁶² Around 43% of the fees paid by patients with private health insurance were recovered as insurance benefits.

Overall, however, despite Medicare and private health insurance payments, it is estimated that Australian patients privately funded around 85% of total expenditure on osteopathy in 2011-12.⁶³

New Zealand

In New Zealand some private insurance companies do reimburse policyholders for the cost of osteopathic treatment, but this is not universal and is often cash-limited on an annual basis. In addition, the state run Accident Compensation Corporation (ACC) subsidises the cost of treatment for all injuries suffered as the result of accidents, wherever suffered. Osteopathic treatment is dealt with on the same basis as similar professions and is subject to the same outcome measures and financial metrics. An analysis showed that for the years 2003-4 to 2007-8, charges by osteopaths accounted for 8% of the gross amount paid under all claims by the ACC.⁶⁴

UK

In the UK, some private health insurance policies will cover osteopathy but less than 11% of the population has private health insurance.⁶⁵ As a result, the majority of osteopathic treatment is paid for directly by patients. A non-representative survey in 2009 covering 1,630 patients found that 89% of patients self-funded the cost of initial appointments.⁶⁶ Private health insurance covered the cost of osteopathy for less than 7% of the surveyed patients. Less than 1% of patients in the survey had been referred to osteopaths by their National Health Service doctors.

France

In France, in contrast, where more than 90% of patients have private health insurance to supplement the national health system, the situation is very different. A non-representative survey of more than 1,550 osteopathy patients found that 61% were reimbursed by private insurance for their osteopathic care.⁶⁷

Other European countries

Coverage by state and private health insurance schemes varies across other European countries. For example, national health insurance cover is also available in Austria, Finland and Germany. Private health insurance cover is also available in Austria, Belgium, Finland, Germany, Ireland, Italy, Malta, Norway, Portugal and Sweden. In both instances the level of cover varies in terms of the cost of each treatment and the total number of treatment sessions.

A profile of osteopathic practice

Practice setting and time worked

Overall, according to the OIA 2012 survey data, the most common work environment for both osteopathic physicians and osteopaths is private practice, with or without partners.

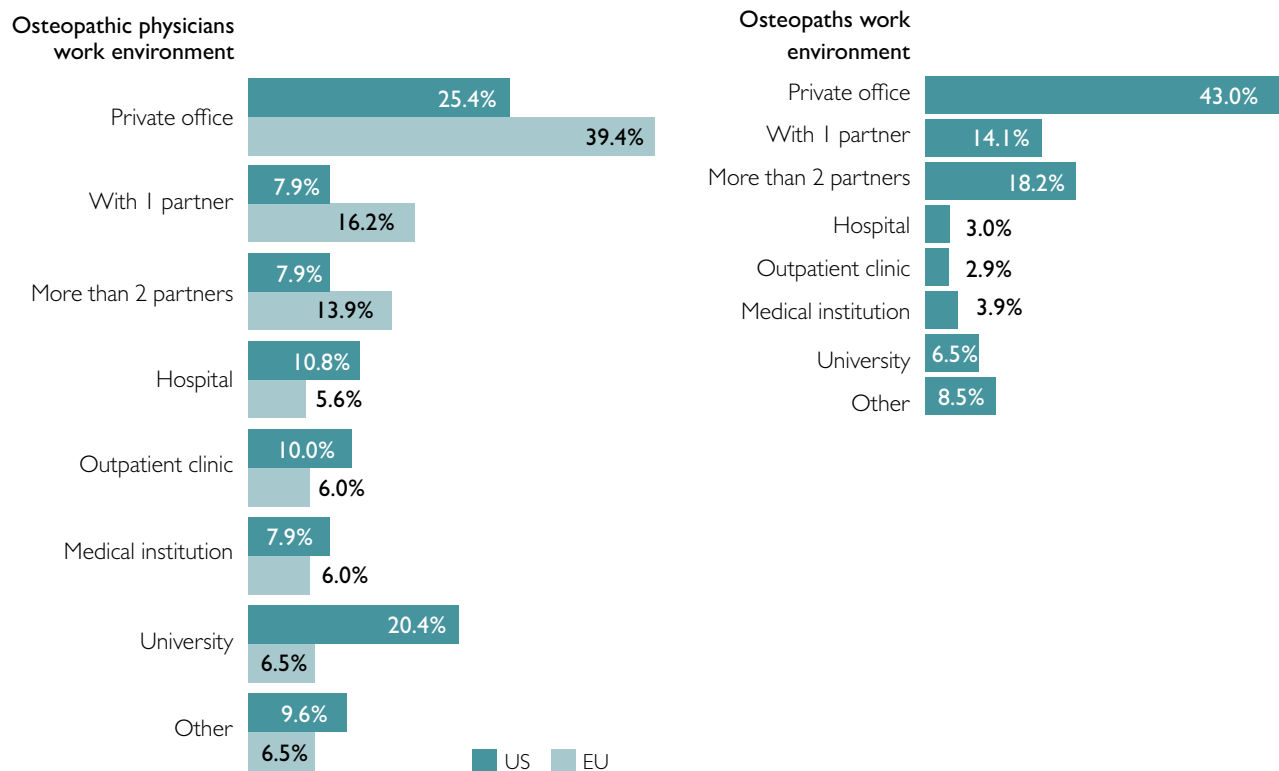
However, US osteopathic physicians are more likely than other groups to work in hospitals, outpatient clinics, universities and medical institutions (Figure 2.14).

The OIA 2012 survey data suggests that about half of all osteopathic practitioners work at least seven hours a day.

In both professional streams, part-time working is common, with a larger proportion of osteopathic physicians than osteopaths working less than three hours a day.

Figure 2.14 Work environments for US/EU osteopathic physicians and worldwide osteopaths

(Source: OIA 2012 survey)

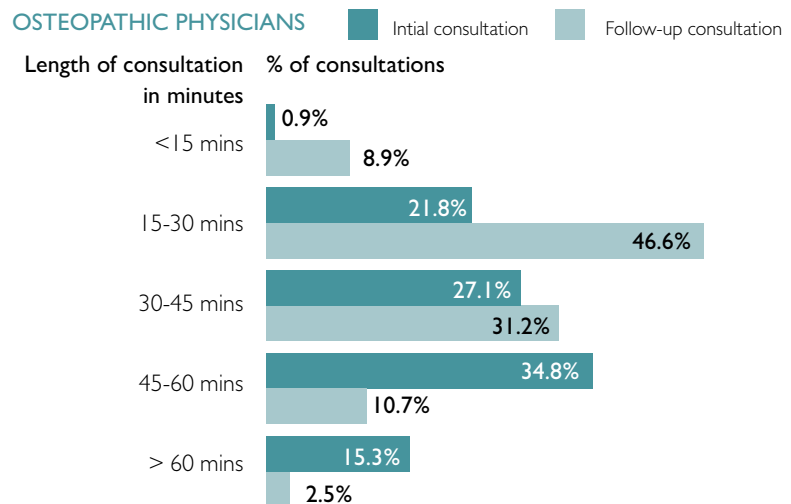


Length of patient consultations

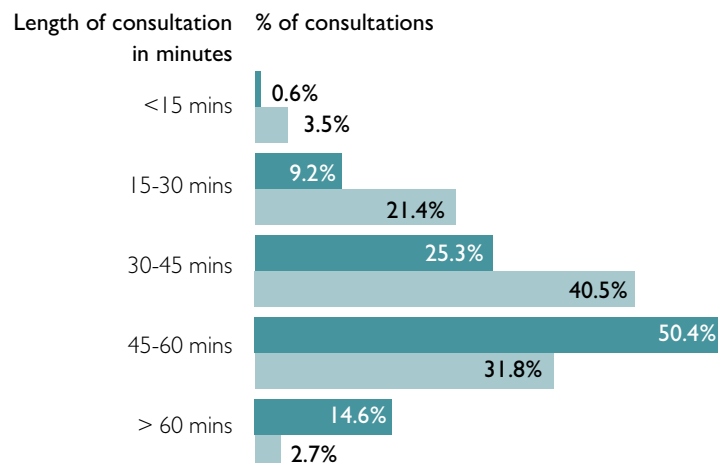
Data from the OIA 2012 survey indicate that osteopaths on average spend longer with patients than osteopathic physicians, both for initial and follow-ups (Figure 2.15). Specifically, osteopaths are more likely to spend longer than 30 minutes on average with a patient. This is particularly true with respect to initial consultations, during which osteopaths spend additional time conducting diagnostic procedures – some of which would be categorised as standard healthcare. This is also borne out by data from individual countries: the survey of osteopaths in Quebec, Canada found an average consultation time of 55 minutes,⁶⁸ while for France the available data found it was 45 minutes.⁶⁹

Figure 2.15 Length of average consultation

(Source: OIA 2012 survey)



OSTEOPATHS



Areas of specialty practice

The majority of practitioners work as primary care physicians or generalist osteopaths.

In the US, around 60% of practising osteopathic physicians work in the primary care specialties of family medicine, general internal medicine, paediatrics, and obstetrics and gynaecology.⁷⁰ Many fill a critical need for physicians by practising in rural and other medically underserved communities. However, Table 2.4 illustrates a shift in recent years away from family practice and towards the other primary care specialties. At the same time, more than one-third of osteopathic physicians now work in specialties outside primary care, compared with less than a quarter 30 years ago.

Table 2.4 US osteopathic physicians: self-identified practice specialties* (1984-2012)

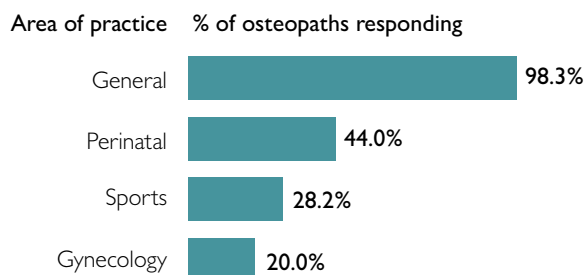
Year	Family and general (%)	General internal medicine (%)	Paediatric and adolescent medicine (%)	Obstetrics (%)	Osteopathic manipulative medicine or osteopathic manipulative treatment specialties (%)	Other specialty practice (%)
2012	37.9%	12.9%	5.7%	4.6%	1.6%	37.3%
2004	45.5%	8.1%	3.1%	3.8%	1.2%	35.5%
1994	44.8%	6.6%	2.5%	3.3%	3.3%	35.5%
1984	56.4%	4.7%	1.8%	2.8%	0.5%	23.7%

* The table includes only osteopathic physicians in active practice and out of postdoctoral training.
(Source: AOA Osteopathic Medical Profession Report 2012.)

Figure 2.16 Osteopaths in Quebec, Canada: areas of practice*

* The same osteopath can have more than one type of practice

Source: Morin C and Aubin A (2012) Survey on osteopathic practices in Quebec: most common reasons for consultation (Powerpoint presentation.) Quebec: Centre Ostéopathique du Québec and the Registre des Ostéopathes du Québec.



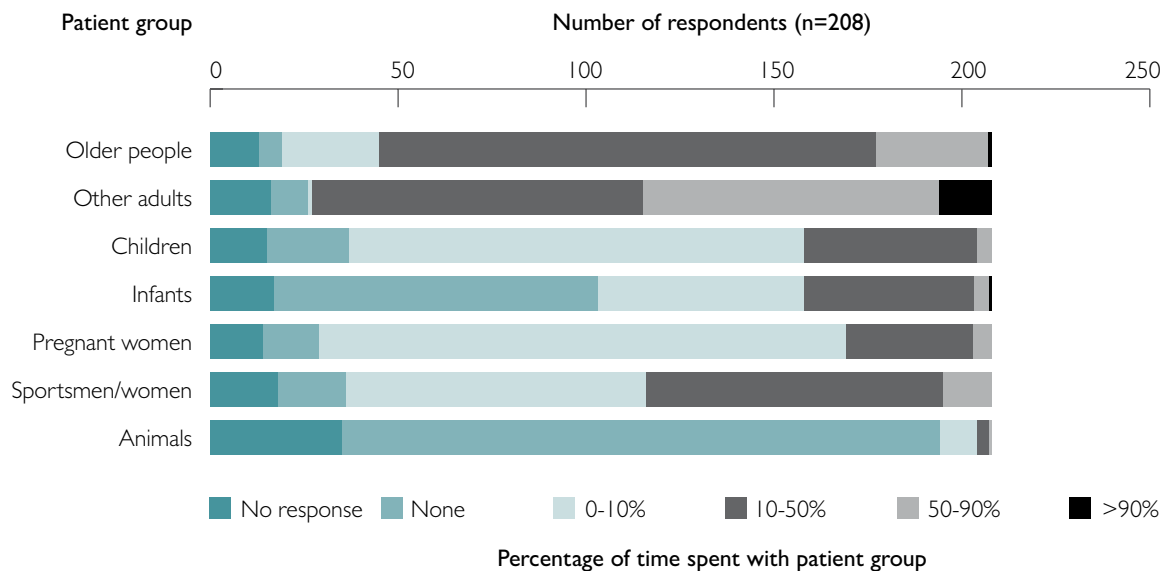
There is less data regarding the extent to which osteopaths specialise, and the information that is available suggests that most osteopaths, even if they have an area of particular interest, treat a wide range of patients and conditions. For example, the survey in Quebec, Canada illustrates how almost all osteopaths with a particular area of practice also offer general practice (Figure 2.16).

A KPMG survey of UK osteopaths looked at the amount of time spent focussing on particular patient groups (Figure 2.17). It identified a very small number of osteopaths who practised almost exclusively on older people or infants, and a minority who focused primarily on a specialist group but also saw other types of patients as well.

Osteopathic treatment is also used for some very specific groups of patients. These areas of practice include pre-operative patients before surgery,⁷¹ Osteopathic treatments can also be used as part of end-of-life care, for instance for the management of pain and to improve respiratory function in patients receiving palliative care.⁷²

Figure 2.17 UK osteopaths: percentage of osteopathic practice time spent on particular groups in a normal week

(Source: KPMG 'Report A – How do osteopaths practice?', survey commissioned by the General Osteopathic Council)



Time spent on osteopathic manipulative treatment (OMT)

Osteopathic manipulative treatment (OMT) is a core activity for both osteopathic physicians and osteopaths.

Not surprisingly, given their broader scope of practice, osteopathic physicians spend less of their time providing osteopathic manipulative treatment (OMT) than osteopaths, and more time delivering other aspects of healthcare. Yet OMT still takes a central role in many osteopathic physicians' practice.

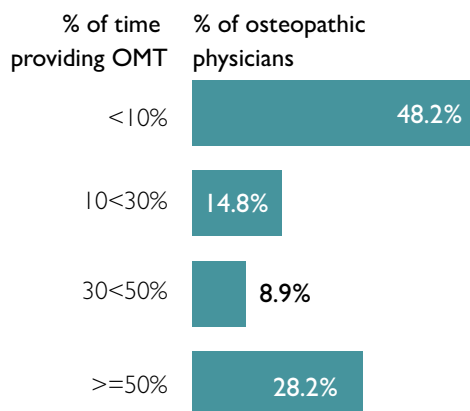
According to the OIA 2012 survey, more than a quarter of US and EU osteopathic physicians said they spent more than half their work time delivering OMT (Figure 2.18), although almost half said it represented less than 10% of their work.

In the US, almost half of osteopathic physicians in the OIA 2012 survey said they had delivered OMT to all their patients over the previous three days; among European osteopathic physicians, this proportion was lower at just under 25%, but nearly 60% said they delivered OMT to more than half their patients. An academic study into the use of osteopathic manipulative treatment by US osteopathic physicians in family practice found it was commonly used in one quarter of patient consultations; this was consistent with the 31% of patients in the study who were diagnosed with a (somatic) dysfunction of the body framework.⁷³

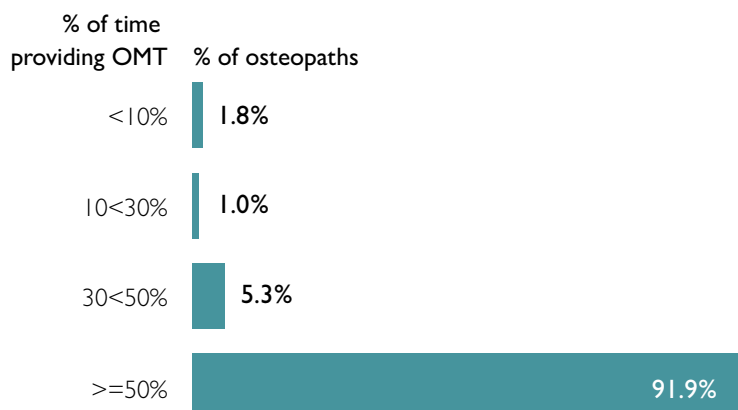
Figure 2.18 Time spent delivering osteopathic manipulative treatment (OMT)

(Source: OIA 2012 survey)

Osteopathic physicians practising OMT



Osteopaths practising OMT



Among osteopaths, the OIA 2012 survey found that more than 90% spent more than half their time delivering OMT (Figure 2.18). Standard healthcare also featured in the practitioner-reported distribution of work time, and this is likely to include broader health activities, such as checking or monitoring blood pressure, discussing how to manage conditions (e.g. diabetes) and providing advice on preventative health measures.

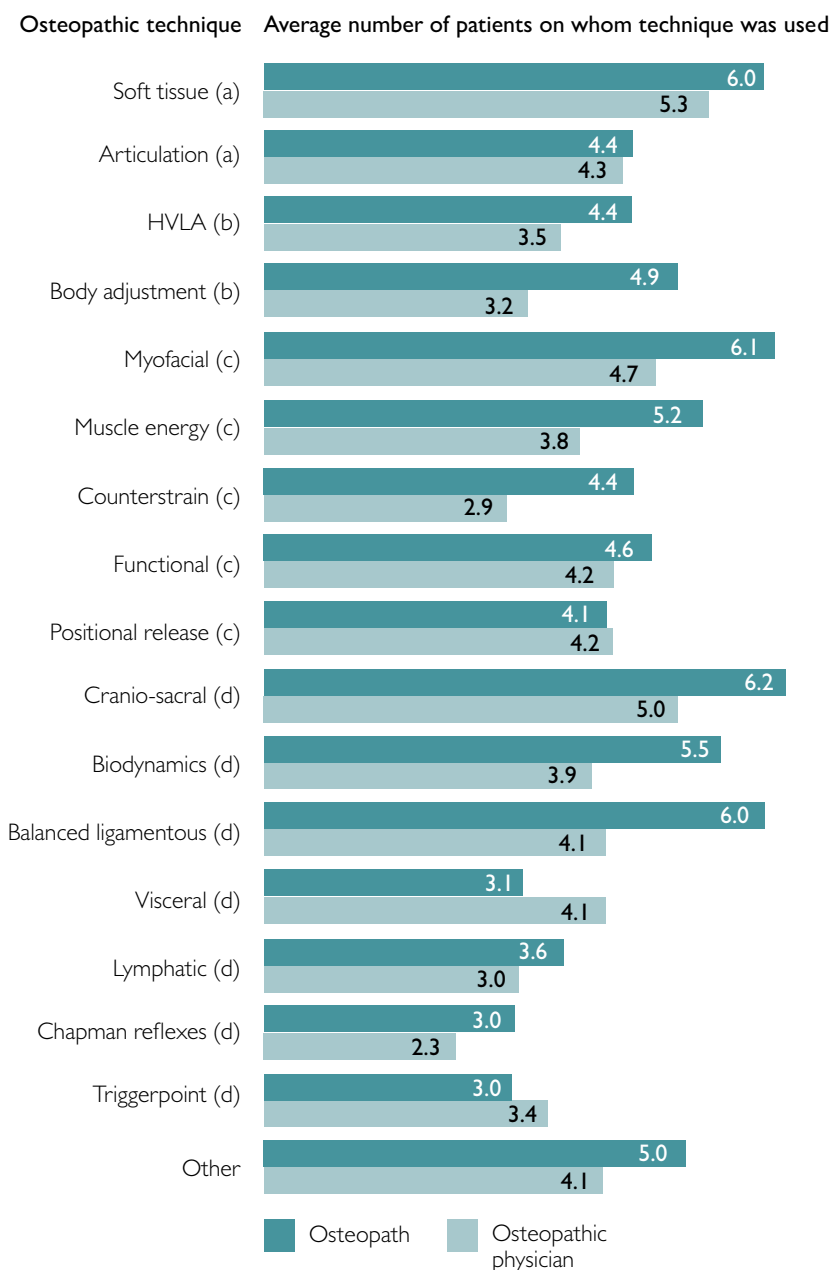
Osteopathic techniques used in treatment

The OIA 2012 survey data showed that several different osteopathic techniques were commonly used on a single patient. As mentioned above, osteopathic manipulative treatment (OMT) is a core activity for both osteopathic physicians and osteopaths. OMT employs an array of approaches that can be broadly categorised as:

- rhythmic techniques (a)
- short precise impulses (b)
- joint positioning techniques (c)
- very gentle specifically applied pressures (d).

Figure 2.19 Osteopathic manipulative treatment (OMT) methods used by osteopathic physicians and osteopaths on their most recent 10 patients

(Source: OIA 2012 survey)



The OIA 2012 survey illustrated how both osteopathic physicians and osteopaths utilise a wide range of these techniques in their practice (Figure 2.19). In the graphic, the techniques are arranged according to this broad classification. The data confirms that each patient receives a number of different types of OMT.

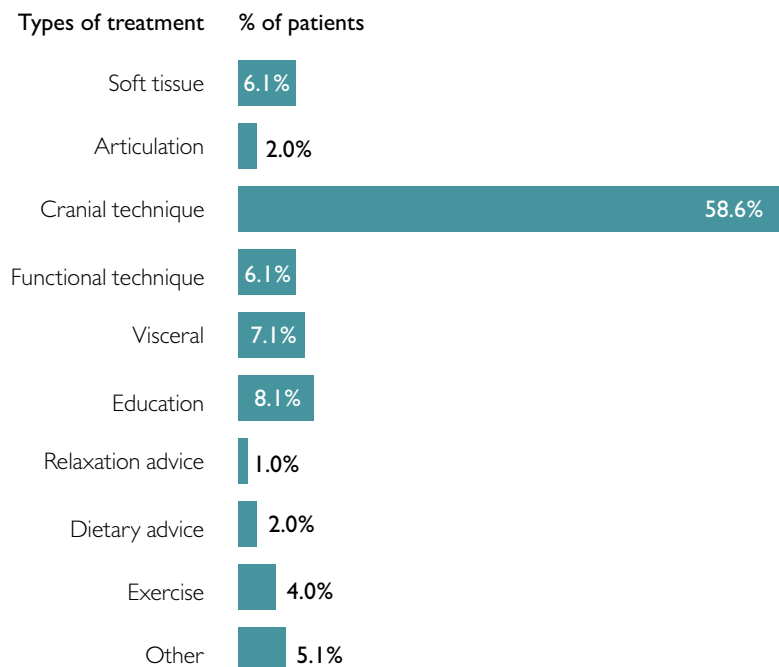
The OIA 2012 survey illustrated some differences in the detail of what techniques are used: data on the most recent 10 patients showed that osteopaths made greater use than osteopathic physicians of soft tissue techniques and articulation, while osteopathic physicians put more emphasis than osteopaths on cranio-sacral, myofascial and balanced ligamentous tension.

Another study in the UK looked specifically at the types of osteopathic treatment provided to babies and children (Figure 2.20). This demonstrated that cranial techniques were dominant for children below the age of 10, and particular for young babies.

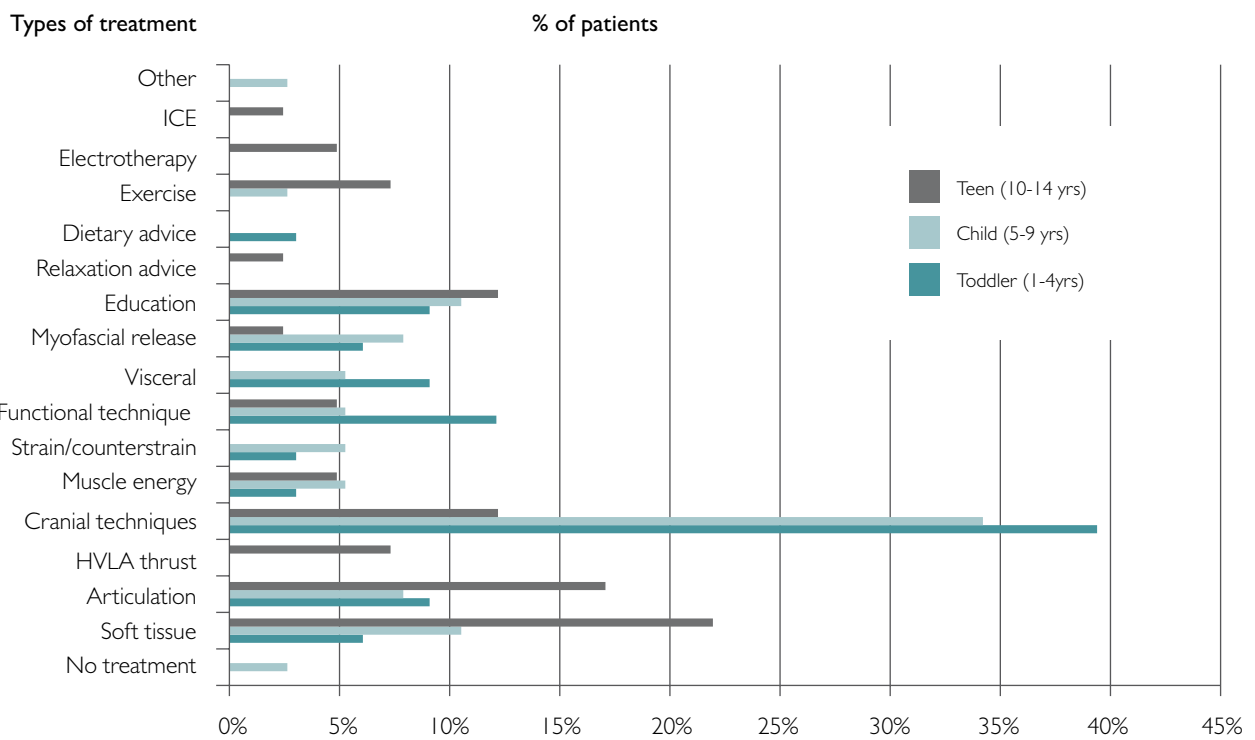
Figure 2.20 UK osteopathy patients under the age of 15 – treatments given at first appointment

(Source: Fawkes C, Leach J, Mathias S, Moore A (2010) The Standardised Data Collection Project – Standardised data collection within osteopathic practice in the UK: development and first use of a tool to profile osteopathic care in 2009. London: National Council for Osteopathic Research.)

Treatments given at first appointment (Baby 0-12 months)



Treatment for children at first appointment



Integrating manipulative therapy with other treatments

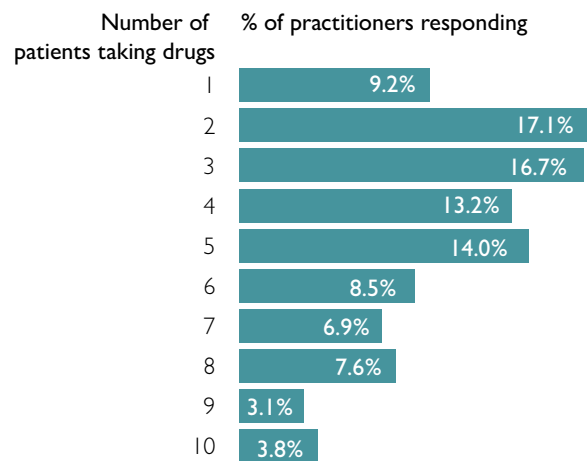
Osteopathic practitioners commonly integrate osteopathic techniques with other healthcare treatments such as pain medication, standard healthcare and complementary therapies.

The OIA 2012 survey found that around 39% of the most recent 10 acute patients were taking medication for pain in addition to osteopathic treatment, while 42% of the last 10 chronic patients were doing so (Figure 2.21).

A study into osteopathic manipulative treatment (OMT) in US family practice found that patients were more likely to receive manipulative therapy if they were taking painkillers, non-steroidal anti-inflammatory agents, or muscle relaxants. The authors suggested this could indicate osteopathic physicians in US family practice may be more likely to use OMT to complement medication rather than as an alternative to it. However, the study cautioned that the comparison group may not have been appropriate and pointed to a clinical trial of OMT in patients with sub-acute low back pain that had concluded the osteopathic treatment group used less medication than the standard care group (see Chapter 4 for a review of the evidence on osteopathic treatment of pain).⁷⁴

Figure 2.21 Number of patients (acute and sub-acute/chronic conditions) taking drugs for pain management in addition to osteopathic treatment (most recent 10 patients)

(Source: OIA 2012 survey)



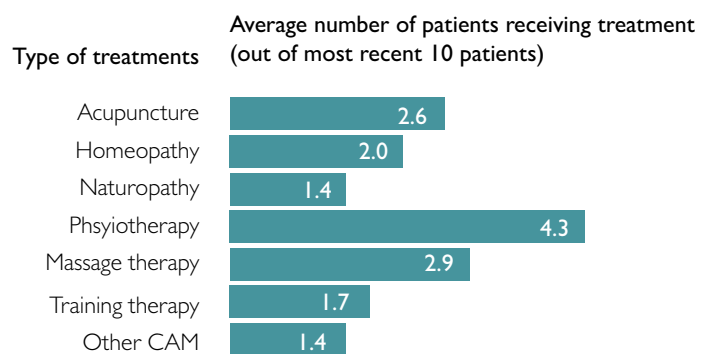
In the OIA 2012 survey, for US/EU osteopathic physicians, 48% of acute and 53% of chronic patients received standard healthcare in addition to osteopathic treatment; for osteopaths, 33% of acute and 39% of chronic patients received standard healthcare in addition to osteopathic treatment. As mentioned in Chapter 1, a core aspect of the osteopathic philosophy includes the elements of standard healthcare that encourage patients to develop attitudes and lifestyles that are not only curative but also help to prevent disease.

In the UK NCOR survey, the majority of osteopath consultations included education (73%) and information-giving (84%), such as advice on self-management strategies (88%), with many patients being given more than one strategy to try.⁷⁵

The OIA 2012 survey also illustrated the types of non-osteopathic additional treatments delivered by osteopathic physicians and osteopaths to their most recent 10 patients. Physiotherapy, massage and a range of complementary medicine techniques were commonly provided in addition to osteopathic manipulation, both for acute and chronic conditions (Figure 2.22). Around 27% of patients had received at least one additional treatment.

Figure 2.22 Number of patients receiving additional treatments in addition to osteopathic care (most recent 10 patients)

(Source: OIA 2012 survey)



The relationship between osteopathic healthcare and national health systems

Traditional, complementary and alternative therapies are increasingly formally used within existing healthcare systems around the world.⁷⁶ As well as examples of formal integration of osteopathic healthcare within national healthcare systems, there is also evidence of osteopaths working constructively in parallel and in communication with physicians and other healthcare professionals. However, in any country, the relationship of osteopathic healthcare with the national health system is usually influenced – and often constrained – by its level of recognition and regulation (see Chapter 3).

Formal integration

Osteopathic physicians are fully licensed to practise the full range of medical care and, in the countries where osteopathic medicine is prevalent they are fully integrated into the national medical system. In the US, for instance, osteopathic physicians specialise in all areas of medicine and their status has parity with medical physicians. US-trained osteopathic physicians are accorded the same unlimited scope of practice as their MD counterparts, which includes prescribing rights, managed care contracts, surgery, and the ability to employ the latest medical technologies and to obtain staff privileges at hospitals.

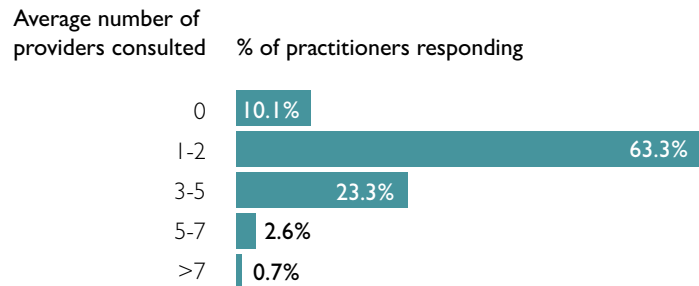
In contrast, the degree of osteopathy's integration (or non-integration) with the national healthcare system varies considerably between different countries.

- The **UK** illustrates one model of integration whereby the state-funded National Health Service is allowed to offer and pay for osteopathy, but the decision whether to do so is made locally. As a result, osteopathy is only available on the NHS in some areas of the UK. Where osteopathy is available within the NHS, a referral by a primary care general practitioner doctor is necessary unless it is integrated into a primary or secondary care service. In England, Department of Health guidance to the NHS on musculoskeletal services includes developing capacity in primary care by offering a wider range of non-surgical alternatives (including osteopathy), and a role for osteopaths in multidisciplinary Clinical Assessment and Treatment Services.⁷⁷ However, most osteopathic healthcare in the UK is still accessed privately and operates outside the NHS.
- In **Australia**, formal referral arrangements exist for osteopathic services within the public healthcare system and patients are eligible for a government subsidy under the Chronic Disease Management Plan when referred to an osteopath by a medical practitioner (see insurance section page 38). A national survey in 2005 found that around 16% of osteopathic patients presented via referral from a conventional medical practitioner.⁷⁸ A recent study into referrals by 585 rural and regional Australian general practitioners in New South Wales found the majority (64.1%) referred to a chiropractor or osteopath at least a few times per year, while 21.7% said they would not refer to a chiropractor or osteopath under any circumstances (no separate data were published specifically for osteopathic referrals).⁷⁹ Most GPs were aware of local chiropractors and osteopaths in their area, but only 6% had a personal professional relationship with a specific individual osteopath. The overall results were in line with an earlier national survey that had found 44% of Australian general practitioners rated osteopathy as moderately or highly effective, 23% regularly referred to osteopaths, but 21% would actively discourage patient use of osteopathy.⁸⁰

- In **New Zealand**, osteopaths are a part of the formal referral system, and have their treatments subsidised under the state-funded Accident Compensation Corporation scheme for patients whose conditions arise from an event or accident, whether at home or at work. A number of osteopaths also hold state-funded contracts for various specialist provision schemes within which they manage rehabilitation pain management and return to work schemes.

Figure 2.23 Average number of doctors or other healthcare providers that patients consulted before seeking osteopathic treatment (most recent 10 patients)

(Source: OIA 2012 survey)



Prior consultations with other healthcare professions

One question is the extent to which patients seek out osteopathic practitioners because other types of healthcare providers have not fully addressed their health conditions and/or concerns. This is a separate issue to that of how patients accessed, or were referred for, osteopathic treatment which is considered in the section on patient pathways above.

The OIA's 2012 survey found that a majority of patients had attended consultations with medical doctors or other healthcare providers before presenting for osteopathic treatment. This was true both for patients of osteopathic physicians and of osteopaths (Figure 2.23).

Referrals by osteopaths to other health services

While the section on 'patient pathways' (see page 30) looked at routes from the wider healthcare system into osteopathic treatment, some data is also available on how osteopaths refer patients onward to other medical professionals.

Respondents to the 2004 survey of Australian osteopaths estimated their referral patterns. Notable referrals outward were to GPs (68.5% 'occasionally' and 19.2% 'frequently'), masseurs (48.2% 'occasionally' and 19.3% 'frequently'), naturopaths/herbalists (43.4% 'occasionally' and 12.0% 'frequently'), podiatrists (47.5% 'occasionally' and 9.8% 'frequently') and medical specialists (48.2% 'occasionally' and 5.2% 'frequently').⁸¹

Survey data in the UK also demonstrate how osteopaths interact with medical physicians and diagnostic services, as well as with other healthcare providers and health-related practitioners. Osteopaths made contact with a patient's general practitioner during the course of treatment in just over 10% of surveyed cases; for 6.4% of patients this was to a request further information or investigation or to request other treatment.⁸²

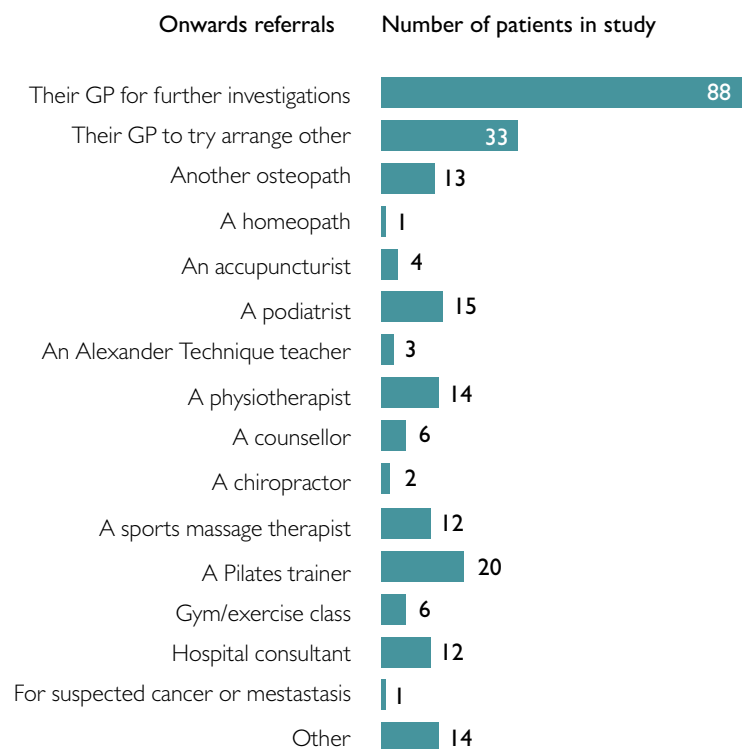
A total of 13% of UK patients overall were referred on by their osteopath to other support or care. This could be at the end of a course of osteopathic treatment or for additional, parallel treatment from another practitioner.

The majority of onward referrals were to a patient's general practitioner for further investigation, but there were also referrals to complementary practitioners and exercise specialists (Figure 2.24).⁸³

Figure 2.24 Destinations for UK patients referred onwards by osteopaths

(Source: Fawkes C, Leach J, Mathias S, Moore A (2010) The Standardised Data Collection Project – Standardised data collection within osteopathic practice in the UK: development and first use of a tool to profile osteopathic care in 2009. London: National Council for Osteopathic Research.)

If the patient was referred on, where was the patient referred to?



Profession demographics

Age distribution

The osteopathic profession is relatively 'youthful'. In the US, for example, 58% of osteopathic physicians are under the age of 45 (Figure 2.25).

Data on osteopaths from the 2012 OIA survey found that around one-third were below the age of 40. However, national data show there is considerable variation between individual countries. For example, age data covering all UK osteopaths show 35% under the age of 40 (Figure 2.26), whereas Australian osteopaths have a markedly 'younger' profile, with almost two-thirds (63%) of the profession under 40 (Figure 2.27).

Data for 'time out of training' provides additional information on how much experience practitioners have in their discipline. As expected, this mirrors the 'young' age profile of the profession. For osteopathic physicians in the US, more than 40% of those in active practice graduated less than 10 years ago.⁸⁵ UK data provide a similar pattern with 43% of the profession qualifying within the past 10 years.⁸⁶ In a survey of osteopaths in Quebec, Canada, the profile was even more pronounced, with more than half having 10 years' or less experience.⁸⁷

Figure 2.25 Age distribution of US osteopathic physicians

(Source: American Osteopathic Association)⁸⁴

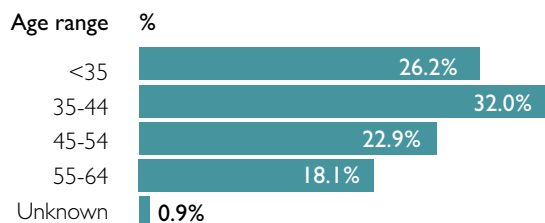


Figure 2.26 UK osteopaths by age group

(Source: GOsC registration data, 2013)

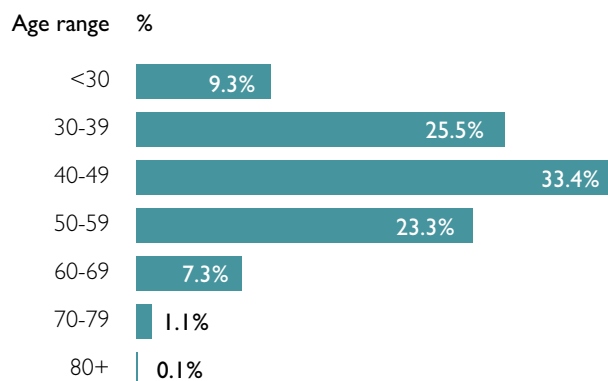
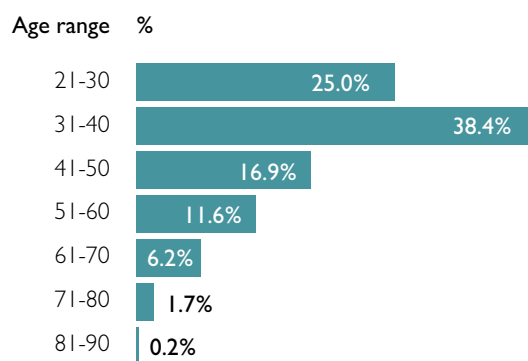


Figure 2.27 Australian osteopaths by age group

(Source: Osteopathy Registrant Data: December 2012, Osteopathy Board of Australia)



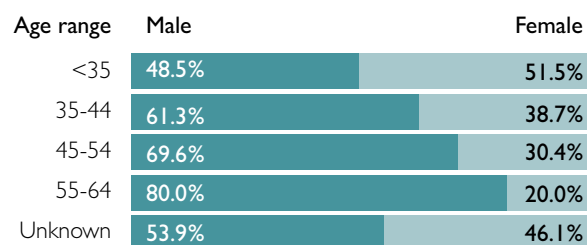
Gender split of practitioners

In the countries for which there is reliable data, the proportion of female practitioners has increased over recent decades. This is against a background of higher female participation in the general workforce and an increased representation of women in other areas of healthcare, including as doctors.

In the US, women now account for more than a third of all osteopathic physicians, compared with 10% in 1985 (Figure 2.28). In the under-35 age group, women outnumber men as a result of the increase in female entrants to osteopathic medical school over the past two decades.

Figure 2.28 Age and gender distribution of US osteopathic physicians

(Source: American Osteopathic Association)⁸⁸



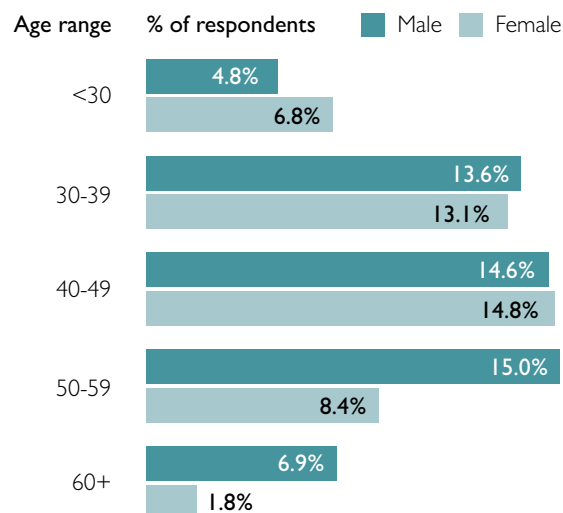
However, this trend may now be levelling off; following a steady increase over the past 50 years, more recently there has been gradual decline in the proportion of female students at US osteopathic medical schools, falling from just over 50% in 2006-7 to 46% in 2011-12.⁸⁹ The 'feminisation' of osteopathic medicine is broadly in line with what has happened at MD medical schools in the US; in 2012 48%⁹⁰ of students graduating as MDs from medical school were female, compared with 23% of the class of 1980.⁹¹

Data from the OIA 2012 survey found that 48.7% of responding osteopaths were female and 51.3% male. As with US osteopathic physicians, the osteopathy profession is becoming increasingly 'female' as a result of the growing number of women entering osteopathic training. Men are now the minority among osteopaths below the age of 30 (Figure 2.29).

National data for osteopaths most commonly show a higher proportion of female practitioners than in US osteopathic medicine. In the UK, registration data for 31 March 2013 showed almost half (49.6%) of osteopaths were female.⁹²

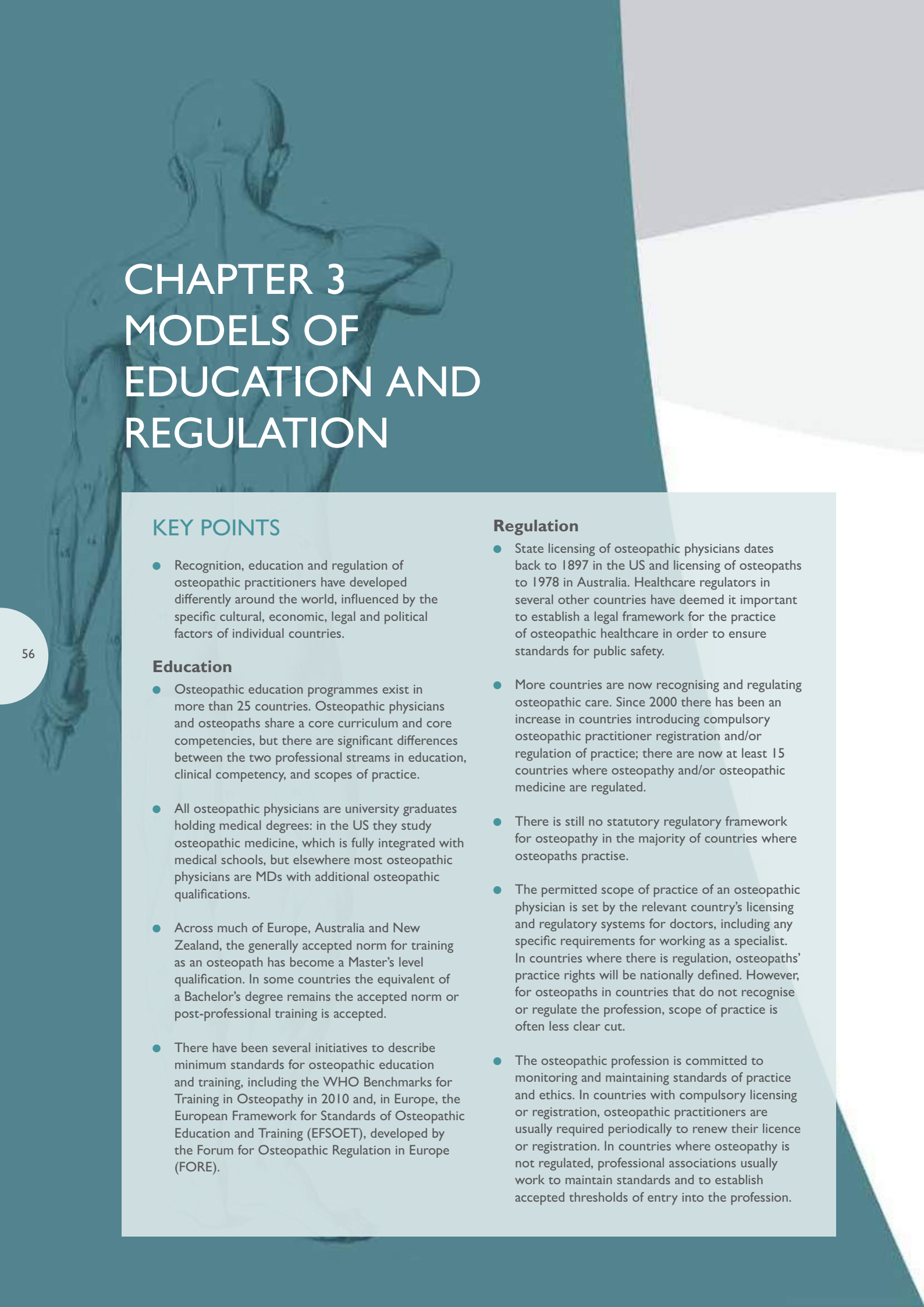
Figure 2.29 Age and gender distribution of osteopaths

(Source: OIA 2012 survey)



The registration data for Australia for the end of 2012 showed 33.6% of osteopaths are female and 35.6% male, but 30.8% preferred not to state their gender.⁹³ (In contrast, the 2004 survey of Australian Osteopathy Association members in 2004 found 59% female and 41% male.⁹⁴)

A non-representative survey of 241 osteopaths in Quebec, Canada found two-thirds were female, and one-third male, while a similar survey of 98 French osteopaths found 35% female and 65% male.⁹⁵



CHAPTER 3 MODELS OF EDUCATION AND REGULATION

KEY POINTS

- Recognition, education and regulation of osteopathic practitioners have developed differently around the world, influenced by the specific cultural, economic, legal and political factors of individual countries.

Education

- Osteopathic education programmes exist in more than 25 countries. Osteopathic physicians and osteopaths share a core curriculum and core competencies, but there are significant differences between the two professional streams in education, clinical competency, and scopes of practice.
- All osteopathic physicians are university graduates holding medical degrees: in the US they study osteopathic medicine, which is fully integrated with medical schools, but elsewhere most osteopathic physicians are MDs with additional osteopathic qualifications.
- Across much of Europe, Australia and New Zealand, the generally accepted norm for training as an osteopath has become a Master's level qualification. In some countries the equivalent of a Bachelor's degree remains the accepted norm or post-professional training is accepted.
- There have been several initiatives to describe minimum standards for osteopathic education and training, including the WHO Benchmarks for Training in Osteopathy in 2010 and, in Europe, the European Framework for Standards of Osteopathic Education and Training (EFSOET), developed by the Forum for Osteopathic Regulation in Europe (FORE).

Regulation

- State licensing of osteopathic physicians dates back to 1897 in the US and licensing of osteopaths to 1978 in Australia. Healthcare regulators in several other countries have deemed it important to establish a legal framework for the practice of osteopathic healthcare in order to ensure standards for public safety.
- More countries are now recognising and regulating osteopathic care. Since 2000 there has been an increase in countries introducing compulsory osteopathic practitioner registration and/or regulation of practice; there are now at least 15 countries where osteopathy and/or osteopathic medicine are regulated.
- There is still no statutory regulatory framework for osteopathy in the majority of countries where osteopaths practise.
- The permitted scope of practice of an osteopathic physician is set by the relevant country's licensing and regulatory systems for doctors, including any specific requirements for working as a specialist. In countries where there is regulation, osteopaths' practice rights will be nationally defined. However, for osteopaths in countries that do not recognise or regulate the profession, scope of practice is often less clear cut.
- The osteopathic profession is committed to monitoring and maintaining standards of practice and ethics. In countries with compulsory licensing or registration, osteopathic practitioners are usually required periodically to renew their licence or registration. In countries where osteopathy is not regulated, professional associations usually work to maintain standards and to establish accepted thresholds of entry into the profession.

Globally there are two recognised professional streams of osteopathic training and practice, as outlined in Chapter 1. Both models deliver patient-centred, evidence-informed care incorporating the principles of osteopathic philosophy, which includes the use of osteopathic manipulative treatment and viewing the patient using the biopsychosocial approach.

The training pathways and regulatory structures differ for the two professional streams and also significantly within the training of osteopaths. The overall picture is complex because within each stream there are also varying models of education and regulation in different countries. Recognition, education and regulation of osteopathic practitioners have developed in different ways and at different speeds, influenced by the specific cultural, economic, legal and political factors of individual countries.⁹⁶

Historically, this development has generally followed a common pattern:

- As described in Chapter 1, in the US, schools for osteopathic physicians developed in parallel with established medical schools from the late 19th century onwards, and regulation of practitioners started as early as 1897.
- In most other countries, osteopathic care has usually been introduced by practitioners who have returned home after training abroad. As the number of osteopathic practitioners in any country has grown, they have often come together to form professional associations.
- Similarly, the first osteopathic schools within a country have usually been set up by early practitioners, initially offering part-time training in osteopathic philosophy and techniques.
- Over time, the training of osteopathic practitioners within a country generally becomes more formalised, with osteopathic schools achieving external quality assurance and countries establishing national academic standards. This has often led to university-validated degrees and postgraduate qualifications in osteopathic care.
- Given a growing number of practitioners and formalised training courses, pressure then tends to build for greater recognition of the osteopathic profession within the healthcare and legal systems.
- This, in turn, can drive the development of a statutory regulatory structure for the profession as part of a framework that sets and maintains standards of practice. Regulation comes in various forms, usually shaped by wider legal and medical regulatory structures that already exist within a country. For instance, regulation may be through the protection of title (e.g. restrictions on who can call themselves an osteopath) or through protection of practice (e.g. restrictions on who can use osteopathic techniques). Often the process of introducing regulation can itself force educators and professional associations to work more closely together.
- As part of a regulatory structure, some countries define specific scopes of practice, either to constrain how osteopaths can practise (for instance, whether they can diagnose) or, less commonly, to detail what treatments practitioners can provide to various types of patients (as is currently being introduced in New Zealand, see section on 'Scope of practice' page 67).

Today, different countries have reached different stages in this pattern of evolution. This chapter aims to provide a high-level summary of the models currently utilised by the osteopathic profession worldwide for the training, regulation and maintenance of good practice.

Osteopathic education and course accreditation

The OIA 2013 survey demonstrated that osteopathic education programmes exist in more than 25 countries (see Chapter 2). Although osteopathic physicians and osteopaths share a core curriculum and core competencies (Box 3.1), there are significant differences between the two professional streams in education, clinical competency, and scope of practice.⁹⁷

The educational pathways into the two professional streams broadly reflect these differences, but within each stream there are also different pathways to qualification.

BOX 3.1 CORE COMPETENCIES OF OSTEOPATHS AND OSTEOPATHIC PHYSICIANS

Osteopathic practitioners share a set of core competencies that guide them in the diagnosis, management and treatment of their patients and form the foundation for the osteopathic approach to healthcare. The following are essential competencies for osteopathic practice in all training programmes:

- *A strong foundation in osteopathic history, philosophy, and approach to healthcare.*
- *An understanding of the basic sciences within the context of the philosophy of osteopathy and the five models of structure-function. Specifically, this should include the role of vascular, neurological, lymphatic and biomechanical factors in the maintenance of normal and adaptive biochemical, cellular and gross anatomical functions in states of health and disease.*
- *An ability to form an appropriate differential diagnosis and treatment plan.*
- *An understanding of the mechanisms of action of manual therapeutic interventions and the biochemical, cellular and gross anatomical response to therapy.*
- *An ability to appraise medical and scientific literature critically and incorporate relevant information into clinical practice.*
- *Competency in the palpatory and clinical skills necessary to diagnose dysfunction in the aforementioned systems and tissues of the body, with an emphasis on osteopathic diagnosis.*
- *Competency in a broad range of skills of osteopathic manipulative treatment.*
- *Proficiency in physical examination and the interpretation of relevant tests and data, including diagnostic imaging and laboratory results.*
- *An understanding of the biomechanics of the human body including, but not limited to, the articular, fascial, muscular and fluid systems of the extremities, spine, head, pelvis, abdomen and torso.*
- *Expertise in the diagnosis and osteopathic manipulative treatment of neuromusculoskeletal disorders.*
- *Thorough knowledge of the indications for, and contraindications to, osteopathic treatment.*
- *A basic knowledge of commonly used traditional medicine and complementary/alternative medicine techniques.*

(World Health Organization (2010) Benchmarks for Training in Osteopathy)

Qualifications of an osteopathic physician

All osteopathic physicians are university graduates holding medical degrees.

United States

In the US over the past century, schools of osteopathic medicine have developed in parallel with medical schools that offer a Doctor of Medicine (MD) qualification. The educational model for osteopathic physicians is a postgraduate doctoral degree, leading to licensure as a Doctor of Osteopathic Medicine (DO). There are currently 29 osteopathic medical schools that will be operating at 37 sites across 28 states during the 2013-14 academic year.⁹⁸ The National Board of Osteopathic Medical Examiners oversees the exam, called COMLEX-USA.⁹⁹ DO students can also sit for the United States Medical Licensing Examination (run by the National Board of Medical Examiners), which is the MD counterpart exam.¹⁰⁰ Following successful completion of the DO degree, graduates follow a structured programme of postgraduate training, during which they can opt to specialise in any area of medicine (including surgery). Osteopathic physicians then go on to practise in their chosen area in a manner that incorporates osteopathic principles.

Training as an osteopathic physician includes comparable hospital rotations and internships to those that are undertaken by MD graduates. Specifically, DO

graduates can pursue specialty training in any residency programme, regardless of whether it is accredited by the American Osteopathic Association, the Accreditation Council for Graduate Medical Education (which is responsible for post-MD medical training programmes) or dually-accredited.

Europe

In several European countries (such as the UK, France, Germany, Austria, Belgium and Switzerland), the educational pathway to recognition as an osteopathic physician is through a first qualification as a MD, followed by additional osteopathic training. In the UK, for instance, registered medical practitioners wishing to practise osteopathy can take a specially designed recognised study programme to achieve qualification as an osteopath. These types of 'conversion' programmes are considerably shorter than osteopathy courses for individuals with no prior healthcare education. The European Register for Osteopathic Physicians, for instance, requires MDs to attend an osteopathic training programme of at least 700 hours over a minimum period of 4 years.¹⁰¹ In Europe, osteopathic physicians commonly hold two separate qualifications, first a MD and then a further osteopathy diploma or postgraduate degree.

In Russia, to date, all osteopathic practitioners are osteopathic physicians who have completed postgraduate osteopathic training following an MD

medical degree. However, a new course was due to commence in 2013 at Novgorod State University that will issue a double degree in medicine and osteopathy.

Qualifications of an osteopath

The emerging educational model for osteopaths is a Master's degree, whether or not preceded by a separate Bachelor's qualification.

Students of osteopathy receive advanced training in detailed examination and diagnosis of body structure and biomechanics. At a minimum, they study anatomy, physiology, pathology, orthopaedics, radiology, differential diagnosis and interpersonal communication, plus intensive training in Osteopathic Manipulative Treatment (OMT).

University-validated courses

Practice as an osteopath now requires a relevant university degree in all of the countries in which it is regulated by law,¹⁰² although not all these countries offer degree courses (for instance South Africa regulates the profession but currently does not offer training courses). Similarly, in some of the countries that do offer degree courses, osteopathy is still unregulated.

In the OIA's 2012 survey of the profession, a majority of osteopaths were university graduates, increasingly at Master's level (see Chapter 2).

Various university-validated degrees in osteopathy are available, for example in the UK, Australia, New Zealand, France, and Switzerland, for students with no prior healthcare education. In addition, several countries (such as Austria and the UK) offer university-validated postgraduate courses where graduate professionals from other non-physician healthcare backgrounds, particularly those with a prior degree or qualification in physiotherapy, can undertake postgraduate training which qualifies them to practise as osteopaths.

University osteopathic courses are either delivered within state-funded universities or institutes of technology, or by specialist independent colleges that receive quality assurance from a validating university.¹⁰³ Over the past decade there has been a significant increase in the number of universities and colleges offering or validating osteopathy training.

Examples of countries with university-validated osteopathic education models include:

- **Australia:** entry level to practise as an osteopath is a Bachelor of Applied Science plus a Master's degree in osteopathy, typically requiring five years' full-time study, including a

significant clinical component. Three universities offer courses.

- **New Zealand:** entry level to practise as an osteopath is a Bachelor of Applied Science plus a Master's degree in osteopathy, typically requiring five years' full-time study, including a significant clinical component. Osteopathy is taught at one institute of technology.
- **United Kingdom:** osteopathic students in the UK follow a four or five-year degree course combining academic and clinical work, with training available at 11 osteopathic educational institutions (including three public universities). Qualifications include a Bachelor's degree in osteopathy – BSc (Hons), BOst or BOstMed – but the standard nowadays is a Master's degree in osteopathy (MOst).
- **Switzerland:** since 2007, osteopaths must qualify for the Inter-Cantonal Osteopathy Diploma which requires 5 years of full-time study, commonly to Master's level, and a 2-year full-time internship.

Non-validated courses

In several countries where osteopathy is not yet regulated, private schools and colleges offer courses and postgraduate training programmes. Some examples are:

- **Brazil:** private colleges offer postgraduate training, based on the WHO's Benchmarks for Training in Osteopathy, available to graduates with a prior health science degree.
- **Croatia:** there is one school of osteopathy, the Akademija Osteopatije, but no legal recognition of osteopathy and (as of May 2013) no legal recognition of osteopathic education by the Ministry of Education.
- **Belgium:** there are degree courses in the Walloon region that are not accredited or quality assured (and some of these are not recognised in the Flanders region of the country).¹⁰⁴
- **Austria:** there are a number of basic and advanced training courses but no state 'regimentation'.¹⁰⁵ Only certain courses are accepted for membership of the osteopathy lobby group, the Österreichische Gesellschaft für Osteopathie (OEGO).

Trends in osteopathic education

There has been a large increase in the number of osteopathy schools in recent years, with a growing proportion of students enrolled on university-validated courses. This 'mainstreaming' of osteopathic education has raised and formalised the level of entry qualification into the profession in many countries. For example, in Australia a five-year training programme has been in place for over 20 years.

In the UK, while prior to statutory regulation most registered osteopaths held a diploma level qualification in osteopathy, now the majority of new entrants have university validated Master's degrees. Across Europe and in Australia and New Zealand, the generally accepted norm for osteopathic training has become a Master's level qualification.

Standardisation and accreditation in osteopathic education

There are a number of initiatives to standardise osteopathic education and training.

In 2010, the WHO published its Benchmarks for Training in Osteopathy, one of a series of publications on selected types of Traditional Medicine and Complementary and Alternative Medicine. The benchmarks aimed to reflect "what the community of practitioners in each of these disciplines considers to be reasonable practice in training professionals to practise the respective discipline, considering consumer protection and patient safety as core to professional practice".¹⁰⁶ They were designed to help implement an earlier WHO resolution which in 2009 had urged Member States "to assist ... practitioners to upgrade their knowledge and skill in collaboration with relevant health providers".¹⁰⁷

In Europe there have also been various moves to set common standards for osteopathic education against the background of the 1999 Declaration of Bologna on harmonisation of higher education qualifications across member states and the European Qualifications Framework, each of which require equivalence to be recognised. The Forum for Osteopathic Regulation in Europe (FORE) has developed a series of voluntary standards, of which the European Framework for Standards of Osteopathic Education and Training (EFSOET)¹⁰⁸ specifically relates to education. EFSOET sets out the threshold standards necessary for graduates in osteopathic practice. This framework has also been ratified by the European Federation of Osteopaths (EFO).

Currently, accreditation of osteopathic educational courses takes place at a national level.

In the US, the American Osteopathic Association's (AOA) Commission on Osteopathic College Accreditation (COCA) is the professional education accreditation authority as deemed by the US Department of Education, and accredits all medical schools granting the Doctor of Osteopathic Medicine (DO) degree. Accreditation signifies that a college or school of osteopathic medicine has met or exceeded the AOA standards for educational quality with respect to

mission, goals, and objectives; governance, administration and finance; facilities, equipment, and resources; faculty; student admissions, performance and evaluation; preclinical and clinical curriculum; and research and scholarly activity.¹⁰⁹ The AOA is also the only accrediting agency for osteopathic graduate medical education, and must approve all postdoctoral training programmes.*

In most countries where osteopathy is a regulated profession, a national system of accreditation is in place, with the professional regulator working alongside existing institutional and national educational quality assurance mechanisms. In the UK, for instance, the General Osteopathic Council (GOsC) scrutinises all courses to ensure standards of education and training are maintained, working closely with the independent Quality Assurance Agency for Higher Education (QAA). In Australasia, the Australian and New Zealand Osteopathic Council (ANZOC) is the delegated accreditation authority under law.

In countries without regulation for osteopathy, educational training institutions can seek validation for degree courses through universities.

* Details of the Osteopathic Postdoctoral Training Structure in the US are available at <http://www.osteopathic.org/inside-aoa/accreditation/postdoctoral-training-approval/Documents/osteopathic-postdoctoral-training-structure.pdf>.

Recognition, regulation and registration

Licensing of osteopathic physicians dates back to 1897 in the US and licensing of osteopaths to 1978 in Australia. More recently, healthcare regulators in many other countries have deemed it important to establish a legal framework for the practice of osteopathic healthcare in order to set standards and safeguard patients. Since 2000 there has been an increase in the number of countries introducing compulsory osteopathic practitioner registration and/or regulation of practice. Information held by the OIA and data collected in the OIA 2013 survey suggests that there are now at least 15 countries where osteopathy and/or osteopathic medicine are regulated.

Currently, various regulatory arrangements exist, shaped by each country's wider legal and medical regulatory frameworks. The profession may be recognised and regulated; recognised but not regulated; or unrecognised. As mentioned in Chapter 1, the countries in which osteopathic practice is regulated have implemented legislation in different ways, for example through protection of title or protection of practice. Osteopathic healthcare manages to function well within very different types of legal environments.

Recognition and regulation of osteopathic physicians

The practice of osteopathic medicine is regulated in the US at the state level. All osteopathic physicians must be licensed by the state licensing board in order to practise in that state. Those boards may be combined (DO and MD) or separate, depending on the state. US-trained osteopathic physicians are licensed to practise the unlimited scope of medicine, which includes prescribing all controlled substances as designated by the US Drug Enforcement Administration in its relevant schedules.

In Canada, each Province or Territory governs the registration of medical professionals. Regulation and registration is carried out by the provincial College of Physicians and Surgeons and only graduates of accredited American colleges of osteopathic medicine (DO) are eligible to register as osteopathic physicians. There is a national standard of medical practice that allows for reciprocity among the provinces and territories.¹¹⁰ In Alberta, British Columbia and Ontario, only a registered DO is entitled to use the designations 'osteopath', 'osteopathic physician' or DO. However, in some states, such as Nova Scotia, legislation states that 'no person' shall use the title 'Doctor of Osteopathy' or 'Osteopathic Physician'.¹¹¹

Osteopathic physicians trained in Europe are qualified doctors (MDs) with postgraduate training and education in osteopathic medicine. Governmental regulatory systems for osteopathic physicians exist only in the UK and France; in all other countries regulation and licensure as physicians is part of the general medical councils.¹¹² In most EU countries these medical councils recognise that MDs with postgraduate qualifications in osteopathy practise osteopathic medicine as a branch of complementary medicine.

Recognition and regulation of osteopaths

The variation in national legal constraints and freedoms for the osteopathic profession has meant that many different models of recognition and regulation have had to evolve across different countries. This report uses four categories to describe these approaches:

- Statutory recognition, regulation and registration.
- Recognised without regulation.
- Unrecognised and unregulated, but free to practise.
- Practice limited to physicians.

Statutory recognition, regulation and registration

Osteopathy is regulated by law in a growing number of countries including the UK, Australia, New Zealand, France, Finland, Malta, Switzerland, Iceland and South Africa. Only individuals registered with the relevant authority may use the title 'osteopath' and/or practise osteopathy in these countries. Most countries have a single regulatory body, but there are exceptions (e.g. France). Eligibility for registration commonly includes minimum training and qualification requirements, professional indemnity insurance, sound physical and mental health and good character.

Examples of the legislative models for osteopathy are:

- **United Kingdom:** osteopathy is a primary contact profession regulated by the Osteopaths Act 1993.¹¹³ UK standards of osteopathic training and practice are set, maintained and developed by the profession's statutory regulator, the General Osteopathic Council (GOsC),¹¹⁴ which holds the Register. The title 'Osteopath' is protected by law, and only those included on the Register are entitled to practise as osteopaths; unregistered practice is a criminal offence in the UK.
- **Australia:** state-based regulation was introduced in 1978, however since July 2010 a National Registration and Accreditation Scheme for health professions has regulated osteopathy as a primary contact profession under the Health Practitioner Regulation National Law Act. The Australian Health Practitioner Regulation Agency (AHPRA) administers this Act in order to regulate the 14 registered health professions. The Osteopathy Board of Australia (OBA) is the statutory body charged with granting registration to practise as an osteopath.
- **New Zealand:** the osteopathic profession is regulated under the Health Practitioners Competence Assurance Act (2003),¹¹⁵ which provides a consistent regulatory framework for 16 different healthcare professions. The Osteopathic Council of New Zealand is the statutory regulator.
- **France:** since 2002 osteopathy has been a recognised profession, and from 2007 the title 'Ostéopathe' became protected in legislation.¹¹⁶ Currently there is no single regulatory body for osteopathy in France. Instead individual osteopaths have to register to practise with their local ARS (Agence Régionale de Santé).
- **Finland:** the Decree on Healthcare Professionals (564/1994) protects the title 'Osteopat'. Practitioners entitled to use the professional title are entered onto the central Register of healthcare professionals maintained by the National Supervisory Authority for Welfare and Health.¹¹⁷

- **Malta:** osteopathy is a distinct profession, regulated by the Council for Professions Complementary to Medicine that covers a number of professions including physiotherapy and chiropractic. This body was set up to safeguard the health and well-being of the public, by setting and maintaining standards of professional training, performance and conduct.
- **Switzerland:** although many cantons had already recognised its practice of osteopathy, on 1 January 2007 the Swiss Conference of the Cantonal Ministers of Public Health (GDK) published directives to the cantons on the regulation of osteopathy and set up a list of requirements to qualify for the Inter-Cantonal Osteopathy Diploma. The cantonal Health Ministries each hold a register of practising osteopaths who have passed the examination and are therefore entitled to be called 'Ostéopathe/Osteopath/Osteopata'.
- **Iceland:** the osteopathic profession is a recognised health profession set out in regulation 1131/2012, regulated by the Icelandic Ministry of Health. No one can work or call themselves an osteopath ('osteópatá') in Iceland without being registered as such with the Ministry of Health.
- **South Africa:** since 1984, osteopaths have been regulated by the Allied Health Professions Council under the Allied Health Professions Act 1982. The Council administers the registration of osteopaths.

Recognised without regulation

Osteopathy is formally recognised but remains unregulated in a number of countries. For example, Belgium and Italy have passed, but not implemented, legislation; Germany and Portugal have recognition and are considering regulation; while Brazil and Russia have recognition but are not currently regulating. Where regulation does not exist, it is common for professional associations to maintain a voluntary register of practitioners and to set standards of practice and training or to establish an independent register. Such arrangements have no legal backing and are usually viewed as a temporary measure. The holders of informal registers are usually engaged with local governments in pursuit of legal regulation to ensure public safety.

Examples of the countries that recognise but do not yet regulate osteopathy include:

- **Belgium:** the federal government is putting forward proposals to regulate osteopathy (along with other disciplines) – a process which began when legislation was passed in 1999 but never implemented. A Government appointed Chamber and a Joint Commission made up of osteopaths and academics have met on a number of occasions to discuss the definition of osteopathy, whether it should be a distinct primary healthcare profession, and what competency profile and level of education should be specified. An agreement on regulating osteopathy is expected to be reached in 2013.
- **Italy:** osteopathy has recently been recognised as a profession, but not part of healthcare, following the passing of legislation in December 2012.
- **Portugal:** osteopathy is a recognised profession. It is not yet regulated but the Government has established a health commission which is proposing a law to regulate osteopathy (along with other disciplines) which was approved by the Portuguese parliament in summer 2013.

- **Brazil:** the profession 'Osteopath' was included in the Brazilian Classification of Occupation from the Ministry of Labour in 31 March 2012. A list of core competencies, activities and skill levels related to the osteopathic profession was developed and published in the Classification document. As a result, from 2013 osteopathy has been acknowledged as an occupation in the Brazilian labour market.

In Greece there is no regulation but in 2011 the outcomes of several legal proceedings led to four individuals withdrawing from calling themselves osteopaths while not having any relevant certification. In this regard, a form of 'soft law precedent' has been established.¹¹⁸

Unrecognised as a profession and unregulated, but free to practise

There are many other countries where osteopathy is not formally recognised as a profession, but where osteopaths are able to practise. These include Denmark, the Netherlands, Sweden, Ireland, Austria, Cyprus, Spain, Greece, Croatia, Cyprus, Israel and Japan, among others. Again, in these jurisdictions the professional associations may operate voluntary registration lists and attempt to establish standards of training and practice but these are voluntary and have no legal backing.

In some countries, there is no statutory recognition but there are early moves towards regulation. For example:

- **Norway:** osteopathy is not currently recognised or regulated so anyone may call themselves an osteopath and practise as such.¹¹⁹ The profession is applying for 'authorisation' which is the first step towards regulation. A major step forward has been the approval of the Nordic Academy of Osteopathy (Nordisk Akademi for Osteopati) by NOKUT – the Norwegian Agency for Quality Assurance in Education.

- **Ireland:** there is no statutory recognition for osteopathy in Ireland. The Osteopathic Council of Ireland is a limited company operating voluntary regulation of its registrants through its byelaws. Membership is available to those who fulfil the required standards. The Council is lobbying for statutory regulation.
- **Canada:** osteopathy is currently an unrecognised and unregulated profession in Canada. The non-physician manual practice of osteopathy is present in most provinces, but the title 'osteopath' cannot be used by non-physicians in three provinces (Alberta, British Columbia and Ontario), so other terms such as 'osteopathic manual therapist' and 'osteopathic practitioner' are employed. The Canadian Federation of Osteopaths represents five provincial associations and is seeking to establish the manual practice of osteopathy as a regulated profession. Osteopaths in Quebec are able to use the title osteopath freely; the province of Quebec, with over 1,000 practising osteopaths, is engaged with the provincial association in the process of regulation. The province of Nova Scotia is also currently working towards regulation.

- **Germany:** osteopaths work under the legal framework for 'Heilpraktiker', an umbrella Complementary and Alternative Medicine profession recognised by the Government and covering several practice disciplines. Germany is currently in the process of establishing more specific regulations and standards.

Practice limited to physicians

In some countries, for example Bulgaria and the Baltic countries (Latvia, Lithuania and Estonia),¹²⁰ the use of osteopathic techniques is reserved for medical doctors, even though (unlike the US) there is no tradition of osteopathic physicians.

Establishing common practice standards in Europe

Within the European osteopathic community, there are moves to agree common practice standards.

Osteopathic physicians in five European countries collaborate to promote and maintain voluntary standards of osteopathic practice under the umbrella of the European Register for Osteopathic Physicians (EROP). Maintenance of the declared core competencies and osteopathic practice standards plays a central role in the requirements for osteopathic training and the achievement and retention of registration in EROP.¹²¹

For osteopaths, the Forum for Osteopathic Regulation in Europe (FORE) has developed and published the European Framework for Standards of Osteopathic Practice (EFSOP) and the European Framework for Codes of Osteopathic Practice (EFCOP), in addition to its voluntary standards on education and training in osteopathy mentioned earlier (see section on 'standardisation and accreditation', page 61).^{122, 123} These frameworks have been ratified by the European Federation of Osteopaths (EFO). They have no legal basis and are not designed to override national laws, but have been developed to create an agreed standard of practice in Europe and to help the osteopathic profession achieve recognition and regulation where this does not currently exist.

The Frameworks are currently being used to inform the development of a European Committee for Standardisation (Comité Européen de Normalisation (CEN)) European Standard on Osteopathic Healthcare Provision. While this would also be a voluntary standard, it will have greater weight than the existing frameworks and will provide a benchmark for patients and the public on the minimum standards of osteopathic care they should expect in those European countries currently without any regulatory mechanisms for osteopathy.

Scope of practice

Scope of practice defines the procedures and treatments that an osteopathic practitioner is permitted to carry out under a country's relevant laws and regulations.

The permitted scope of practice of an osteopathic physician is set by the relevant country's licensing and regulatory system for medical doctors, including any specific requirements for working as a specialist.

For osteopaths, scope of practice is often less clear cut, especially in countries that do not recognise or regulate the profession. Even in those jurisdictions that do recognise and/or regulate osteopathy, scope of practice – in terms of what an osteopath can and cannot do – is often not explicitly defined, although to some extent it may be implicit in the competencies defined within degree programmes.

The scopes of practice of other medical professions already mean that non-physician osteopaths (like anyone else) are not permitted to carry out activities for which, for example, a physician's licence or midwifery qualification are necessary. So, as mentioned previously, osteopaths are not permitted to prescribe medications, perform surgery or provide obstetric care.

Some countries also use osteopathy-specific scopes of practice to define what osteopaths cannot do. For example, specific restrictions apply to osteopaths in France, including not being permitted to carry out internal or obstetric treatment. In addition, for high velocity thrust (HVT) manipulation of the cervical spine or HVT manipulation of infants under six months, French osteopaths need a certificate of 'non-contraindication' from a medical practitioner before treatment in such cases.¹²⁴

In some jurisdictions scope of practice means that osteopaths are only permitted to practise on patients who have been referred by a doctor. In Iceland, for instance, currently patients seeking care from osteopaths, and other health professionals, should do so in consultation with a doctor; however, this is commonly 'overlooked' and representations are being made to the Government to change this requirement.

The New Zealand approach to scope of practice

One country taking an innovative approach to scope of practice is New Zealand, where the Osteopathic Council of New Zealand (OCNZ) has started to introduce scopes of practice that define specialist areas of practice or particular groups of practitioners. As of January 2013, the main scopes are:¹²⁵

- The general osteopathic scope of practice, covering all registered osteopaths. This scope provides a high level definition of what an osteopath is and does, and endorses a formulation of osteopathic principles.
- Extended scopes of practice, which permit holders of the general osteopathic scope of practice to extend their clinical practice through additional qualifications. Currently one extended scope of practice has been developed, for **Western Medical Acupuncture and Related Needling Techniques**.
- Vocational scopes of practice have been introduced to allow members of the public and referring healthcare professionals to identify osteopaths on the Register "with advanced standing in a sub-domain of practice". Currently vocational scopes of practice exist for **Gerontology** and **Pain Management**.

Maintaining standards and fitness to practise

Monitoring standards of practice

The osteopathic profession is committed to monitoring and maintaining standards of practice and ethics, but the organisations involved in doing this, and the bodies that can impose sanctions, vary depending on the statutory environment in each country.

- In the US, the State Medical Boards are responsible for the licensing of osteopathic physicians and can remove an individual's licence if there is cause, such as poor practice or breach of ethics. Lesser sanctions (such as requiring additional training) can be imposed at various other levels depending on the findings.
- Elsewhere, in countries that regulate osteopathy, the national regulator can set standards or conditions (for instance, requirements for continuous professional development) for continued licensing or registration. Ultimately, where fitness to practise issues are proved, the regulator has the power to remove a practitioner from the Register which means they can no longer legally practice.
- In unregulated countries, codes of practice and continuing professional development requirements may be set by professional associations, which may also maintain a register of practitioners. However, these arrangements are voluntary, and the professional associations do not

have mandatory powers beyond removing an individual's membership of the association. They can report an osteopath to a statutory body (for instance, the police), but they cannot stop an osteopath from practising.

Continuing requirements for licensing or registration

In countries with compulsory licensing or registration, osteopathic practitioners are usually required periodically to renew their licence or registration. This provides a regular mechanism for monitoring and maintaining standards.

In the US, for example, certification is not a requirement to practise a medical specialty, but it demonstrates that an osteopathic physician has met the requirements of one (or more) of the 18 AOA Specialty Certifying Boards of the American Osteopathic Bureau of Osteopathic Specialists.¹²⁶ Since 1939, the American Osteopathic Association has maintained a programme of board certification for physicians who complete residency training in programmes approved by the AOA. At present, the AOA certifies osteopathic physicians in specialties ranging from family medicine and paediatrics to neuropsychiatry, through these 18 specialty certifying Boards. AOA Board certification is based upon completion of approved graduate medical education and passage of a psychometrically-valid rigorous examination process. Recertification is mandatory for those who want to

maintain certification and requires individuals to complete a minimum number of hours of continuing medical education per 3-year cycle. The individual Boards make their own timeline for recertification, ranging from 6 to 10 years.

Among countries where osteopathy is regulated:

- **Australia:** maintaining registration as an osteopath with the Osteopathy Board of Australia requires annual compliance, including compulsory continuing professional development (CPD), recent practice and appropriate insurances.¹²⁷
- **New Zealand:** in order to continue to practise, all registered osteopaths must renew their Annual Practising Certificate (APC). Among the requirements is a CPD form summarising the CPD activities and credits achieved during the previous calendar year. An APC may be investigated by or have conditions placed upon it by the regulator, the Osteopathic Council of New Zealand, if an osteopath has failed to maintain the required standard of competence or has not complied with APC renewal conditions.¹²⁸

- **UK:** the General Osteopathic Council's (GOsC) Osteopathic Practice Standards comprise both the Standard of Proficiency and the Code of Practice for osteopaths.¹²⁹ Maintaining these standards is necessary for the retention of registration. Separately, and in line with all UK healthcare regulators, the GOsC is currently developing a scheme for regular 'revalidation' which will require all registered osteopaths periodically to demonstrate that they are up to date and fit to practise, and meet the relevant professional standards.
- **South Africa:** the regulator, the Allied Health Professions Council, has set guidelines which require registered osteopaths (and other healthcare professionals) from July 2013 onwards to maintain a CPD Activity Record and to accrue the necessary Continuing Education Units every two years.¹³⁰
- **France:** continuing professional development is now mandatory but has not yet been enforced.¹³¹

In countries where osteopathy is not regulated, it is the professional associations or voluntary registers that usually work towards maintaining standards and establishing accepted thresholds of entry into the profession – with only rare examples of mandatory rather than voluntary systems. Some examples include:

- **Ireland:** with no statutory recognition of osteopathy, the Osteopathic Council of Ireland is a professional association set up as a limited company to operate a voluntary register and work for high clinical and professional standards until regulation is introduced.¹³² While it lacks statutory powers, it seeks to govern, regulate and represent the profession, and for continuing membership osteopaths are expected to commit to continuous learning and professional development and subscribe to a code of practice in line with standards set by the Forum for Osteopathic Regulation in Europe (FORE).
- **Netherlands:** with no statutory regulation, the Dutch Register (Nederlands Register) was created following a split from the professional association (Nederlands Vereniging voor Osteopathie) to act as the 'regulator'. As part of this, members of the Register have to fulfil 160 hours continuing professional development over five years.

- **Spain:** the Spanish Register of Osteopaths (Registro de los Osteópatas de España) is a non-profit organisation that attempts to group together those osteopaths in Spain "who, according to their academic level, are up to the European standards established by the European Federation of Osteopaths".¹³³
- **Austria:** the Österreichische Gesellschaft für Osteopathie (OEGO) is the lobby group of Austrian osteopaths. It is campaigning for the accreditation of osteopathy in order to achieve common regulated standards for osteopathic training and practice of the osteopathic profession; its members must have received training accredited by the OEGO.¹³⁴

Inter-country recognition of osteopathic qualifications

The professional right to practise as an osteopathic physician or osteopath outside the country of qualification may be restricted by the destination country.

US-trained osteopathic physicians are currently able to practise with unlimited practice rights in approximately 60 countries, and in a number of other countries with restricted rights, subject to completing the necessary licensing or registration requirements for the specific country. For example, some countries only recognise the osteopath aspect of the osteopathic physician's training and only allow US DOs to practise osteopathic manipulative techniques, rather than the full scope of medicine.

While a physician's licence is mandatory, the requirement for an osteopathic physician to be separately licensed or registered to work as an osteopath varies between countries, as outlined above.

In the UK, for instance, if a US DO wants to work as a doctor and use the word osteopath in their title, they must register with both the General Medical Council and the General Osteopathic Council (GOsC); but if they refer to themselves only as a general practitioner or specialist they do not have to register with the GOsC. Similarly, in Australia US-registered osteopathic physicians may register with the Medical Board of Australia in order to practise medicine, but must also register with the Osteopathy Board of Australia to practise as an osteopath.

From the reverse perspective, only graduates of US colleges of osteopathic medicine are permitted to practise in the US as osteopathic physicians. As the non-physician profession of osteopath is not recognised in the US, osteopaths who have trained outside the US cannot practise as, or call themselves, osteopaths in America. As mentioned earlier, they are only allowed to call themselves massage therapists and can only practise in the state where they are registered as such.

In other countries, the situation for overseas-trained osteopaths depends, firstly, on whether a regulatory or registration system exists at all in the destination country; if osteopathy is not regulated then overseas-trained osteopaths may practise, subject to other laws relating to healthcare or business activities that are relevant.

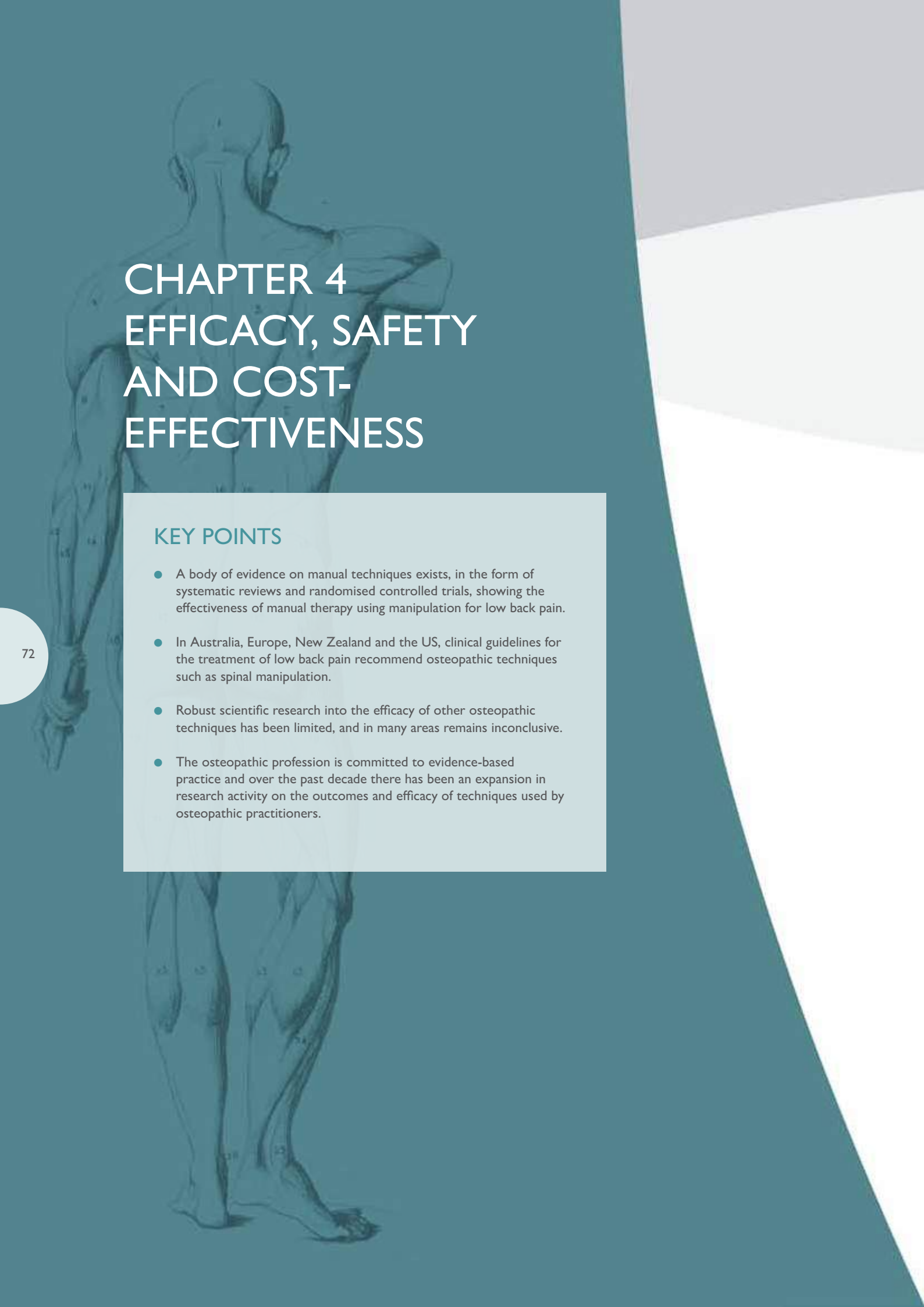
If osteopaths are regulated in the destination country, then the right of an overseas-qualified osteopath to practise will depend on whether their education qualifications and experience are accepted as meeting local requirements. In the UK, for instance, the qualifications and experience of overseas-trained osteopaths will be assessed and further evidence of the level of practice may be required, for example through an Assessment of Clinical Performance. Only those foreign-trained osteopaths who meet the requirements for UK registration are permitted to practise in the UK.

Globally, automatic cross-border recognition of osteopathy qualifications is at an early stage in regulated countries. Osteopaths registered to practise in Australia may also practise in New Zealand and vice versa under the terms of the Trans-Tasman Mutual Recognition Agreement (TTMRA).

In 2010 a Memorandum of Understanding was signed by the Osteopathy Board of Australia, the Osteopathic Council of New Zealand (OCNZ) and the General Osteopathic Council of the United Kingdom, with the commitment that the regulators would work together to agree comparable arrangements for registering osteopaths from all three countries.¹³⁵

The OCNZ opened two routes to registration for UK-trained osteopaths in April 2011, and in early 2013 the Osteopathy Board of Australia carried out a consultation on a draft framework on pathways for registration of overseas-trained osteopaths.

Ahead of the consultation, a report for the Australian and New Zealand Osteopathic Council (ANZOC) had judged that graduates of UK-accredited osteopathy training programmes since 2000 had reached equivalent standards to their Australian and New Zealand counterparts except with regard to the socio-cultural, structural and medico-legal aspects of Australian healthcare delivery and financing – which it said could be addressed in a specially developed module for all internationally qualified osteopaths seeking registration in Australia.¹³⁶



CHAPTER 4 EFFICACY, SAFETY AND COST- EFFECTIVENESS

KEY POINTS

- A body of evidence on manual techniques exists, in the form of systematic reviews and randomised controlled trials, showing the effectiveness of manual therapy using manipulation for low back pain.
- In Australia, Europe, New Zealand and the US, clinical guidelines for the treatment of low back pain recommend osteopathic techniques such as spinal manipulation.
- Robust scientific research into the efficacy of other osteopathic techniques has been limited, and in many areas remains inconclusive.
- The osteopathic profession is committed to evidence-based practice and over the past decade there has been an expansion in research activity on the outcomes and efficacy of techniques used by osteopathic practitioners.

Osteopathic healthcare has been used safely and effectively in a growing number of countries around the world, with benefits to patients and a relatively low risk of harm. This chapter reviews the available research, and points to sources of further information.

To date, robust scientific research into the efficacy of osteopathic techniques has been limited, and in many areas remains inconclusive. Osteopathic healthcare, like a number of other medical and psychotherapy interventions, does not lend itself to the 'gold standard' of double-blinded randomised controlled trials (RCTs) used in pharmaceutical research.

RCTs are where patients are randomly allocated to either the 'intervention' arm (the treatment under investigation) or a 'control' arm which can be usual care, nothing (sometimes in the form of placebo) or a comparative treatment. Placebos are difficult to implement as patients know when they are being touched, and even "sham" therapies have a mechanical input, thus making blinding difficult (in a similar way, it is difficult to "fake" surgery).

Pragmatic trials are a common approach in osteopathic research; these are trials designed to evaluate the effectiveness of interventions in real-life routine practice conditions and allow for some variation in clinical delivery to reflect practice.

The osteopathic profession is committed to evidence-based practice and over the past decade there has been an expansion in research activity. A body of evidence does now exist and, looking ahead, an increasing number of osteopathic practitioners are involved in research that is carried out to standards that are recognised across the healthcare professions.

Some forms of manual techniques, such as spinal manipulation, are used by other professions as well as osteopaths. As a result, much of the currently available research has investigated the outcomes of specific treatment techniques, regardless of the type of healthcare professional (osteopath, osteopathic physician, chiropractor, manual therapist) delivering the treatment. Thus the evidence reviewed below covers manual therapies and techniques of the type used by osteopathic practitioners, rather than the practices of osteopathic physicians or osteopaths per se.

This research into techniques nevertheless provides very relevant and useful evidence that has also been used to provide clinical guidance for national health systems.

Finally, it should be noted that inconclusive (or non-existent) evidence does not equate to negative evidence. Nor should any historic shortcomings in the design of the available research studies reflect on the osteopathic techniques themselves.

Clinical guidelines on low back pain

Guidelines are recommendations to health professionals on the appropriate treatment and care of people with specific diseases and conditions. The guidance is based on the best available evidence on a treatment's efficacy and, increasingly, its cost-effectiveness.

Osteopathic techniques have been mentioned in clinical guidelines for almost 20 years, mostly in relation to the treatment of patients with low back pain. In the UK, the Clinical Standards Advisory Group (CSAG) produced clinical guidelines for the management of acute low back pain in 1994; manipulation was recommended "within the first six weeks of the occurrence of symptoms for patients who need additional help with pain relief or who are failing to return to normal activities".¹³⁷

The European back pain guidelines covered the treatment of acute and chronic back pain. The guidelines for acute non-specific low back pain include "consider (referral for) spinal manipulation for patients who are failing to return to normal activities".¹³⁸ The 2005 guidelines for chronic low back pain recommend, under the heading 'conservative treatments', that "short courses of manipulation/mobilisation can also be considered" for chronic low back pain patients.¹³⁹

In England, the Department of Health's 2006 guidance to the NHS on musculoskeletal services includes developing capacity in primary care by offering a wider range of non-surgical alternatives (including osteopathy), and a role for osteopaths in multidisciplinary Clinical Assessment and Treatment Services.¹⁴⁰ More recently, the National Institute for Health and Clinical Excellence (NICE) in 2009 issued guidance on the early management of persistent non-specific low back pain.¹⁴¹ It covers people who have been in pain longer than six weeks but less than one year, where the pain may be linked to structures in the back such as the joints, muscles and ligaments. The recommendations include offering a course of up to nine sessions of manual therapy over up to 12 weeks, including spinal manipulation, spinal mobilisation and massage, provided by a range of health professionals including osteopaths. (In contrast, NICE does not recommend cranial osteopathy for the management of otitis media with effusion.¹⁴²)

In the US, the American College of Physicians and the American Pain Society in 2007 published a joint clinical practice guideline on the diagnosis and treatment of low back pain. Among its recommendations was that, for patients who do not improve with self-care options, clinicians should consider the addition of non-pharmacologic therapy with proven benefits for acute low back pain, specifically spinal manipulation; for chronic or sub-acute low back pain, spinal manipulation was also included in a list of therapies that should be considered.¹⁴³

Evidence of the outcomes of osteopathic techniques

The most robust research evidence is provided by systematic reviews (studies that analyse data from several trials to produce a combined result) of RCTs and the larger RCTs themselves. This section provides a selection of some of the widely cited research in the field of osteopathic healthcare. It has drawn heavily on a review of the current evidence carried out in the UK by the National Council for Osteopathic Research (NCOR); an overview of the identified research papers and links to more detailed information on the research material are available at <http://www.ncor.org.uk/>.

Musculoskeletal pain

A systematic review looked at 16 RCTs involving the use of osteopathic manipulation/mobilisation for patients with any **musculoskeletal pain** in any anatomical location.¹⁴⁴ Five of the RCTs suggested that osteopathy lead to a significantly stronger reduction of musculoskeletal pain, compared to various control interventions. Eleven RCTs indicated that osteopathy, compared to controls, generated no change in musculoskeletal pain.

The various controls in the studies included: sham ultrasound; placebo/sham manipulation; no intervention; drugs; moist heat; chemonucleolysis; sham treatment plus standard care; chiropractic techniques antiphlogistics and cortisone injections; exercises or manipulative physiotherapy; manual mobilisation; short-wave diathermy and a placebo; and standard care. The review found a lack of independently replicated results and concluded that the available data failed to produce compelling evidence for the effectiveness of osteopathy as a treatment of musculoskeletal pain. It recommended that future studies should be in line with accepted standards of trial design and reporting.

Back pain

The majority of research studies into back pain have looked at the outcomes of osteopathic treatment for **chronic low back pain**. An important systematic review published in 2005 assessed the efficacy of osteopathic manipulative treatment in primary care; unlike many other reviews, eligibility for inclusion was limited to RCTs of interventions performed by osteopaths, osteopathic physicians, or osteopathic trainees that included blinded assessment of low back pain in ambulatory settings.

While some of the review studies covered acute low back pain, the majority looked at chronic low back pain.¹⁴⁵ Overall, the findings demonstrated that osteopathic manipulative treatment significantly reduced low back pain. The level of pain reduction was greater than expected from placebo effects alone, persisted for at least three months, and was found regardless of whether trials were performed in the UK or the US. Significant pain reductions were also observed during short-, intermediate-, and long-term follow up.

In an earlier RCT by the same lead author into **chronic nonspecific low back pain**, the subjects were randomised to osteopathic manipulative treatment, sham manipulation, or a no-intervention control group, and they were allowed to continue their usual care for low back pain. It had found that, compared with the no-intervention control group, patients who received osteopathic manipulative treatment reported greater improvements in back pain, greater satisfaction with back care throughout the trial, better physical functioning and mental health at one month, and fewer co-treatments at six months. However, the subjects who received sham manipulation also reported greater improvements in back pain and physical functioning and greater satisfaction than the control group. There were no significant benefits with osteopathic manipulative treatment, compared with sham manipulation.¹⁴⁶

Most recently, the same lead author studied the efficacy of osteopathic manual treatment and ultrasound therapy for short-term relief of **nonspecific chronic low back pain**. Patients receiving osteopathic manual therapy were more likely than patients receiving sham therapy to achieve moderate and substantial improvements in low back pain at week 12, and also used prescription drugs less frequently. The study found no statistical interaction between osteopathic manual treatment and ultrasound therapy, and that ultrasound therapy was not efficacious.¹⁴⁷

In a review of spinal manipulative therapy for patients with **chronic low back pain**, high quality evidence showed a statistically significant, short-term effect on pain relief and functional status, compared with other interventions. However, these findings were not found to be clinically relevant.¹⁴⁸

A large UK RCT (the BEAM trial) involving 1,334 patients with **low back pain** compared “best care” in general practice alone with the effect of adding exercise classes, spinal manipulation delivered in NHS or private premises, or manipulation followed by exercise. The patients had experienced pain every day for 28 days before randomisation or for 21 out of the 28 days and 21 out of the 28 days before that. All groups improved over time.¹⁴⁹

Relative to “best care” in general practice alone, the addition of manipulation followed by exercise achieved a moderate benefit at three months and a small benefit at 12 months; spinal manipulation achieved a small to moderate benefit at three months and a small benefit at 12 months; and exercise achieved a small benefit at three months but not 12 months. No significant differences in outcome occurred between manipulation in NHS premises and in private premises, and no serious adverse events occurred.

Individual RCTs investigating the use of osteopathic manipulation for **sub-acute pain** have indicated positive results. One study found that the addition of treatment in a primary care osteopathy clinic improved short-term physical and longer-term psychological outcomes for **sub-acute neck or back pain** of 2 to 12 weeks’ duration compared with usual GP care alone.¹⁵⁰ A separate RCT found that osteopathic manual care and standard medical care had similar clinical results in patients suffering from **sub-acute low back pain** for three weeks to six months, but those receiving manual therapy used significantly less medication (analgesics, anti-inflammatory agents, and muscle relaxants) and less physical therapy.¹⁵¹

A recent systematic review of RCTs into the effectiveness of spinal manipulative therapy (spinal manipulation or mobilisation) in adults with **acute low back pain** (pain of less than six weeks’ duration, but excluding sciatica) found it no more effective in participants with acute low back pain than inert interventions, sham therapy, or when added to another intervention.¹⁵² However, the evaluation was limited by the small number of studies per comparison, outcome, and time interval; the authors stated that future research was likely to have an important impact. The paper concluded that the decision to refer patients for spinal manipulative therapy should be based upon costs, preferences of patients and providers, and the relative safety of the intervention compared to other treatment options.

An early open-controlled pilot trial of patients with **nonspecific low back pain** showed that some participants presenting with pain durations of 14 to 28 days responded to osteopathic manipulative treatment. No response was demonstrated in those with shorter episodes at presentation, and the advantage to manipulated patients was maximal between one and two weeks after commencing treatment, but was not discernible after four weeks.¹⁵³

An RCT investigating the effects of osteopathic manipulative treatment for **back pain during pregnancy** found that it slowed or halted the deterioration of back-specific functioning during the third trimester of pregnancy.¹⁵⁴ Effects on back pain were less conclusive; back pain appeared to decrease when osteopathic manipulative treatment was combined with usual obstetrical care (and remained unchanged or increased in comparator groups) but not to the extent that this was statistically significant.

Among other back pain related research is a systematic review of the clinical efficacy of spinal manipulation in the management of disc herniation, relative to published data on harms. The reviewers found some evidence, although weak, suggesting that spinal manipulation may be beneficial in the early stages of **disc herniation**. However, more research is needed to aid practitioners' decision-making on benefits versus harm.¹⁵⁵ Another systematic review concluded that massage might be beneficial for patients with **sub-acute and chronic nonspecific low back pain**, especially when combined with exercises and education;¹⁵⁶ and evidence of "acceptable reliability" of spinal palpation for diagnosis of back and neck pain, with pain provocation tests the most reliable and soft tissue paraspinal palpatory diagnostic tests not reliable.¹⁵⁷

Separately, a systematic review was carried out of all systematic reviews of the effectiveness of spinal manipulation for any medical condition, published between 2000 and May 2005. Overall, the conclusions of the 16 included reviews were largely negative, except for **back pain** where spinal manipulation was considered superior to sham manipulation but not better than conventional treatments.¹⁵⁸ Three systematic reviews on back pain and one on lower back pain and neck pain were included in the review.

Headache and neck pain

There is encouraging, albeit inconclusive, evidence that spinal manipulations are effective in the treatment of **tension-type headaches** (pain or discomfort associated with muscle tightness).¹⁵⁹ Four of the five RCTs included in the review suggested that spinal manipulations were more effective than drug therapy, spinal manipulation plus placebo, sham spinal manipulation plus amitriptyline (a headache medication) or sham spinal manipulation plus placebo, usual care or no intervention. An earlier systematic review also found that spinal manipulative therapy appeared to have an effect on **tension-type headache and migraine headache**.

Effectiveness in treating these types of headache was comparable to commonly used first-line prophylactic prescription medications, but spinal manipulative therapy did not appear to improve outcomes when added to soft-tissue massage for **episodic tension-type headache**.¹⁶⁰

A single-blind, randomised study compared the effects of osteopathic treatment and progressive muscular relaxation exercises on patients with **tension-type headache**. The results showed that participants who did relaxation exercises and received three osteopathy treatments had significantly more days per week without headache than those who did only relaxation exercises.¹⁶¹

For **cervicogenic headaches** (a common type of headache that originates in the neck) the therapeutic value of spinal manipulation remains uncertain due to a lack of rigorous RCTs. However, the findings from many of the RCTs included in systematic reviews have been positive.

One review concluded that cervical spinal manipulation techniques may provide effective treatment,¹⁶² and the majority of RCTs in another systematic review suggested that spinal manipulation was more effective than physical therapy, gentle massage, drug therapy, or no intervention (although these studies did not have adequate controls for placebo effect).¹⁶³ An earlier systematic review found spinal manipulation had a better effect than massage for cervicogenic headache.¹⁶⁴

Manual therapies are often used, either alone or combined with other treatment approaches, to treat neck pain and the evidence is broadly positive. A review of trials covering manipulation, mobilisation and myofascial techniques (but not massage or mechanical traction) concluded that manual therapies contributed to improved pain and function in adults with **nonspecific neck pain**. A moderate level of evidence was found for short-term effects of thoracic manipulation combined with electrothermal therapy and short-, medium- and long-term effects of cervical manipulation. A limited level of evidence was found for chronic neck pain and neck pain of variable duration.

None of the manual therapies used alone or in combination were found to be superior over the others. It was, however, notable that consistently adding exercises to manual therapy produced greater efficacy.¹⁶⁵ The benefit of combining manual therapy with exercise was also identified in another systematic review, which found moderate quality evidence supported manipulation or mobilisation, combined with exercise, for pain reduction and improved quality of life over manual therapy alone for **chronic neck pain**.¹⁶⁶

A systematic review comparing the effects of manipulation and mobilisation found moderate quality evidence showed cervical manipulation and mobilisation produced similar effects on neck pain, function and patient satisfaction at intermediate-term follow-up. Low quality evidence suggested cervical manipulation may provide greater short-term pain relief than a control. Low quality evidence also supported thoracic manipulation for pain reduction and increased function in **acute pain** and immediate pain reduction in **chronic neck pain**.¹⁶⁷

Results relating specifically to manual therapies from the Bone and Joint Decade 2000–2010 Task Force on Neck Pain and Its Associated Disorders found consistent evidence from four RCTs that active therapies involving mobilisation were associated with greater pain reduction in the short-term among persons with **acute whiplash-associated disorders** when compared with usual care, soft collars, passive modalities, or general advice.¹⁶⁸ When looking at the evidence for **sub-acute or chronic nonspecific neck pain**, the results were inconclusive, but appeared stronger for mobilisation (alone or with medication) than for cervical spine manipulation (alone or with advice and home exercises). The task force concluded that therapies involving manual therapy and exercise were more effective than alternative strategies for patients with neck pain.

Miscellaneous

As Chapter 2 illustrated, patients present for osteopathic treatment with a wide range of medical conditions.

A study of children aged between six months and six years old with **recurrent acute otitis media** looked at the effects of osteopathic manipulative treatment as an adjuvant therapy to routine paediatric care compared with routine paediatric care.

Adjusting for baseline frequency of episodes before entry to the study, patients receiving routine care plus osteopathic manipulative treatment had fewer episodes of acute otitis media, fewer surgical procedures, and more mean surgery-free months than those only receiving routine care. Baseline and final tympanograms (graphic representations of the acoustic impedance and air pressure of the middle ear) obtained by an audiologist showed an increased frequency of more normal tympanogram types in the intervention group. No adverse reactions were reported.

Overall, the results of the study suggested a potential benefit of osteopathic manipulative treatment as adjuvant therapy in children with recurrent acute otitis media, and the researchers propose that it may prevent or decrease surgical intervention or antibiotic overuse.¹⁶⁹

The evidence base for less commonly treated conditions is often sparse. A recent systematic review of randomised controlled trials, and pre-and post-designs on manual therapy for **chronic obstructive airways disease** found only one small study with a low risk of bias. In this study, performance based measures of pulmonary function changed minimally following osteopathic manipulative techniques, but patient reported measures for 'improved health' and 'breathing difficulty' did improve compared to the control.¹⁷⁰

A recent RCT to investigate the effect of osteopathic manipulative treatment on self-reported pain and quality of life in an elderly population affected by **osteoporosis** found an increased self-reported quality of life that appeared to be caused by an improvement in psychological factors (i.e mental well-being and health perception) rather than physical factors; the effect on pain perception was less clear.¹⁷¹ An older RCT found a selected osteopathic manipulative treatment protocol did not appear to be efficacious during hospital rehabilitation of patients who had recently undergone surgery for knee or hip osteoarthritis or for a hip fracture.¹⁷²

For many medical conditions that are less commonly treated by osteopathic practitioners, there is insufficient research to form a judgement of the efficacy of osteopathic healthcare. For example, a systematic review found there was not enough high quality evidence to support or refute the use of manual therapy for patients with **bronchial asthma**;¹⁷³ the lack of serious scientific data means no conclusion can be drawn on the efficacy of manual therapy as an efficacious technique for the treatment of **adolescent idiopathic scoliosis** (curvature of the spine);¹⁷⁴ and a qualitative systematic review could only find a single trial of osteopathy and **fibromyalgia** (chronic widespread pain and a heightened response to pressure).¹⁷⁵

A systematic review of the therapeutic effects of cranial osteopathic manipulative techniques found that positive clinical outcomes were reported for **pain reduction**, change in **autonomic nervous system function**, and improvement of **sleeping patterns**.¹⁷⁶ However, the currently available evidence was insufficient to draw definitive conclusions and further research was recommended.

Another systematic review into the clinical benefits of cranio-sacral therapy found positive clinical outcomes were reported for **pain reduction** and improvement in **general well-being** of patients.¹⁷⁷ However, the study revealed a 'paucity' of research in patients with different clinical pathologies, while noting that assessment of the technique would be feasible through RCTs and had the potential to provide valuable outcomes to support clinical decision making. An older systematic review also found that effective research methods had not been used, and that weak study design meant there was no valid scientific evidence of effectiveness.¹⁷⁸

A review of the evidence surrounding the general use of manipulative therapies for **infantile colic** determined that the methodological quality and size of the studies made it impossible to arrive at a definitive conclusion; several studies had a high risk of performance bias (because the parents were not blind to whom had received the intervention) but did appear to indicate that the parents of infants receiving manipulative therapies reported fewer hours crying per day than parents whose infants did not.¹⁷⁹ Again, further, more rigorous research was suggested.

A single RCT has looked at the effect of osteopathic treatment on the general health, well-being and physical functioning of children aged 5 to 12 with cerebral palsy but did not find statistically significant evidence that osteopathy lead to sustained improvement in motor function, pain, sleep or quality of life in the children nor in quality of life of their carers.¹⁸⁰ However, compared with children in the control group, carers of children receiving cranial osteopathy were nearly twice as likely to report that their child's global health had 'improved' at 6 months rather than 'decreased' or 'remained the same'.

Safety of osteopathic practice

A systematic review has explored the incidence of adverse events of different severity and relative risk of different manual therapies.¹⁸¹ It found major adverse events and deaths were rare as a direct consequence of manual therapy; however, minor adverse events were common.¹⁸²

Using data from prospective cohort studies and RCTs, mild adverse events post treatment affected around 40–50% of patients. Major adverse events such as death, vascular insults and major neurological incapacity were “very rare”. The reported incidence of major cerebrovascular insults, incidents or accidents following cervical manipulation ranged from 1: 120,000 to 1: 1,666,666, (median 1: 1,000,000, excluding extreme outliers). One study reported the incidence of lumbar disc herniations following manipulation as, 1:38,013 lumbar manipulations. Incidence for cauda equina syndrome was reported in two studies, data ranged from < 1: 3.7 million to 1:100 million lumbar manipulations. Most adverse events occur within 24 hours of treatment. Most mild to moderate adverse events, such as muscle soreness, aching and headache resolve within 24 hours.¹⁸³

In the RCTs, the rate of adverse events in the manual therapy trial arms, were similar to those in the control arms. For RCTs comparing manual therapy with pharmaceutical agents, adverse events were significantly less likely within manual therapy treatment groups.¹⁸⁴

Being female and ‘patient’s first visit’, were likely risk factors for reporting adverse events. Risk factors most closely associated with major adverse events, occurring after manual therapy were unusual neck pain/stiffness, having an upper cervical manipulation, seeing a clinician in the preceding weeks (indicating patient concern about their condition rather than causality).¹⁸⁵

The Clinical Risk Osteopathy and Management (CROAM) study researched the outcomes of osteopathic manipulation and other treatment reactions.¹⁸⁶ The CROAM study team surveyed UK practising osteopaths and followed up a group of selected osteopaths using in-depth interviews of selected osteopaths. Osteopaths also invited patients to provide information about their experience of osteopathic care and its outcomes.

Patients were surveyed before treatment, one day and two days after treatment and at six weeks. Selected patients were interviewed. 1,082 (27.8%) osteopaths completed the practitioner survey, and 24 osteopaths were interviewed. 2,057 patients were recruited by 212 osteopaths; these patients completed questionnaires before their treatment. 1,387 (77%) patients returned six week follow-up questionnaires. Interviews took place with 19 patients.

Immediate increase in pain/symptom intensity was the most frequent reaction post treatment and occurred in around 20% of patients; these treatment reactions were perceived by patients at interview as acceptable.¹⁸⁷

Four per cent (10) of patients reported temporary incapacity or disability that they attributed to their osteopathic treatment. Two of these patients described experiences characteristic of a major adverse event at interview. There were no reports of life-threatening events, referral to hospital or other permanent disability in the patient sample.¹⁸⁸

Around 12% of osteopaths reported patients experiencing a major adverse event over the span of their career. Four per cent of osteopaths reported such events within the past twelve months. The most conservative estimate of the rate of major adverse events derived from these data was 1 in 36,000; however the margins of error around this estimate are unknown. The study's authors concluded that it was more useful to consider the evidence from the study as suggesting that major events were rare, but do occur and that "osteopathy can be considered a low risk intervention".¹⁸⁹

A recent review of RCTs on the use of manipulation and mobilisation for patients with neck and low back pain also found that reported adverse events were mostly moderate in severity and of transient nature (e.g. increased pain).¹⁹⁰

A systematic review that looked specifically at the risk of stroke from neck manipulation found that the number and quality of relevant studies meant conclusive evidence was lacking for a strong association between neck manipulation and stroke, but was also absent for no association.¹⁹¹

A review of spinal manipulation in patients with disc herniation found evidence for harms was based primarily on case reports: incidences appeared to be rare, though the authors cautioned that underreporting may be a significant problem.¹⁹² The study concluded treatment was "likely to be safe when used by appropriately-trained practitioners", but there was an urgent need for more research in this area in order to help practitioners make decisions on benefit versus harm.

Cost-effectiveness of osteopathic practice

There is a paucity of published well-designed cost-effectiveness studies of osteopathic healthcare techniques.¹⁹³ Robust cost-effectiveness analysis of a treatment looks at whether the difference in cost can be justified in terms of how much someone's life can be extended and/or improved by a new treatment, when compared against existing routine treatment. This type of analysis uses the concept of the QALY (quality-adjusted life year), which is a standard and internationally recognised measure of the impact of a health technology. Cost-effectiveness is assessed by calculating how much the treatment costs per QALY gained and is expressed as, for example, £ per QALY. This is used to produce the incremental cost-effectiveness ratio (ICER), which is the ratio of change in the costs to incremental benefits of a therapeutic intervention. In the UK, the National Institute for Health and Clinical Excellence (NICE) does not set an ICER ceiling, but approved treatments commonly have an ICER below £30,000 per additional QALY gained.

The cost-effectiveness analysis carried out as part of the UK BEAM RCT on a range of physical treatments for low back pain in primary care concluded that spinal manipulation was a cost-effective addition to "best care" for back pain in general practice, and that manipulation alone probably gives better value for money than manipulation followed by exercise.¹⁹⁴

The paper states that in economic terms, "if decision makers value additional QALYs at much less than £3,800, "best care" in general practice is probably the best strategy. If their valuation lies between £3,800 and £8,700, spinal manipulation followed by exercise classes ("combined treatment") is likely to be the best treatment. If their valuation is well above £8,700, manipulation alone is probably the best treatment".

A cost-utility analysis of osteopathy in primary care in the UK looked at a practice-based osteopathy clinic and patients with sub-acute spinal pain of 2 to 12 weeks duration.^{195, 196} Costs were measured from a National Health Service (NHS) perspective. Osteopathy plus usual GP care was found to be more effective clinically than usual GP care alone, but resulted in more healthcare costs. The point estimate of the incremental cost per QALY ratio was £3,560. The author concluded that a primary care osteopathy clinic may be a cost-effective addition to usual GP care, but rigorous multi-centre studies were needed to assess the generalisability of this approach.

A recent systematic review and meta-analysis that considered the cost-effectiveness of various complementary and alternative treatments for neck and low back pain found that the evidence base meant it was not possible to reach clear conclusions about the cost-effectiveness of any of the treatments.¹⁹⁷

For studies that looked at manipulation and low back pain, there were varied results. One found no differences in costs between manual therapy, general practitioner care (rest, sick leave, direct prescription, advice about posture, and information about nature of the pain), and intensive therapy for acute low back pain.¹⁹⁸ In another, costs were higher for manipulation compared with medical care (analgesics or muscle relaxants) without producing better clinical outcomes for patients with mixed duration of low back pain.¹⁹⁹ As mentioned above, in patients with sub-acute and chronic low back pain, spinal manipulation in addition to GP care (recommending active management and the use of the Back Book) was relatively cost-effective compared to GP care alone.^{200, 201} In chronic low back pain patients, there were no differences in costs between physician consultation, spinal manipulation plus stabilising exercises, and physician consultation alone.²⁰² Results were difficult to compare due to differences in healthcare systems, perspectives, interventions, populations, and methods used.

An economic evaluation alongside an RCT evaluated the cost-effectiveness of physiotherapy, manual therapy, and care by a general practitioner for patients with neck pain. The cost-effectiveness ratios and the cost-utility ratios showed that manual therapy (spinal manipulation) was less costly and more effective than physiotherapy or general practitioner care.²⁰³

Development of research

Globally the osteopathic profession has recognised the need for more research and the development of the evidence base for osteopathic healthcare. There is increased collaboration within the profession, nationally and internationally, and with other professions, which will facilitate larger studies with stronger methodological approaches.

In addition, the new paradigms of clinical research and evidence collection may be particularly suited to the evaluation of osteopathic interventions. In all countries with regulation, concerted efforts are being made, particularly with respect to safety monitoring, to observe, assess, and document the efficacy and safety of osteopathic manipulation in order better to inform patients.

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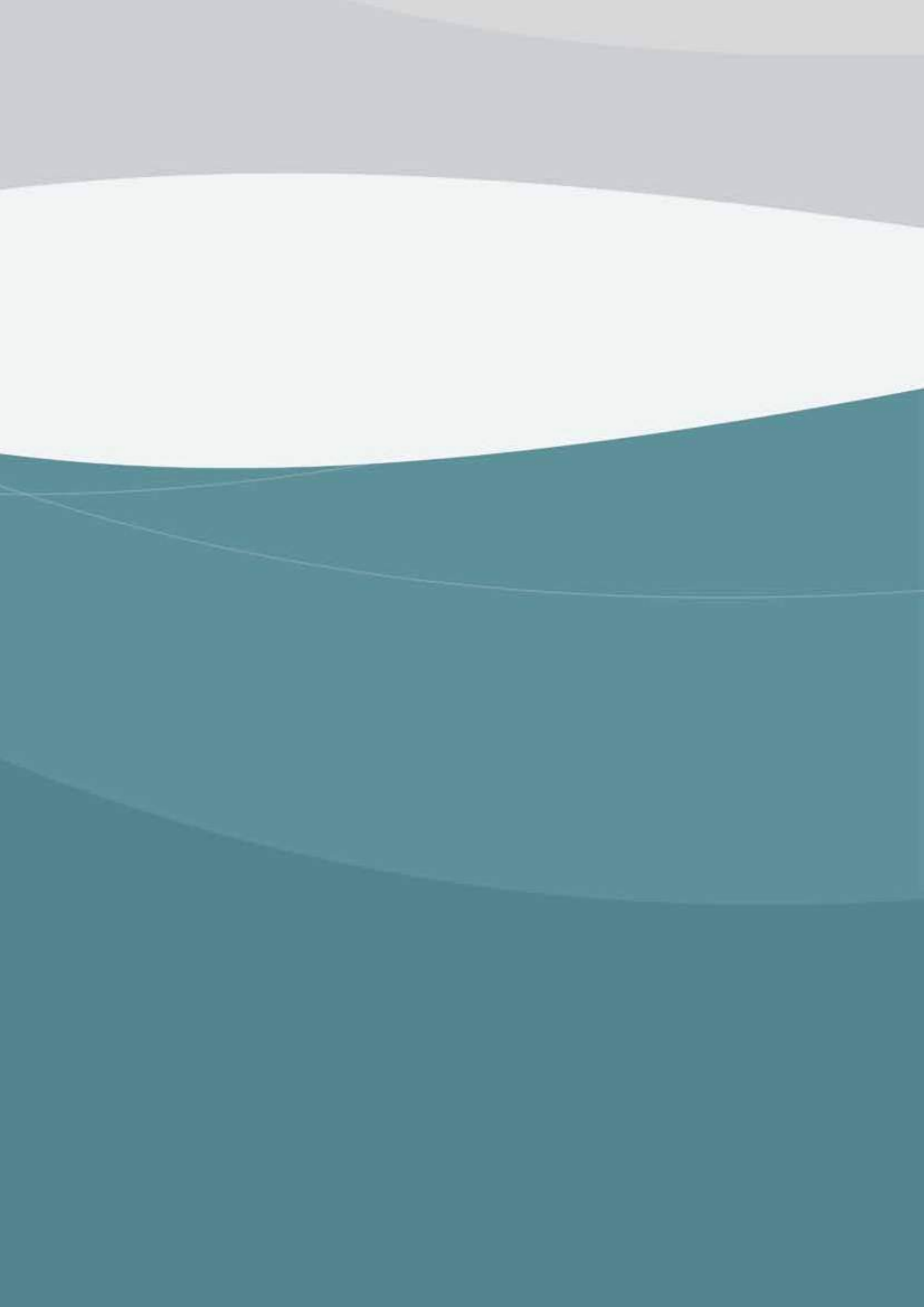
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