

# Competencies for the Extended Osteopathic Scope of Practice for Western Medical Acupuncture

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## **Executive summary – Western Medical Acupuncture project**

### **Background**

During 2008/2009, the Osteopathic Council of New Zealand (OCNZ) undertook a review of the osteopathic scope of practice (SOP); alongside this review was consultation with the profession and other stakeholders (national and international) relating to the possible need for additional scopes of practice. The initial osteopathic SOP is detailed below.

### **Osteopathic Scope of Practice – OCNZ**

This section discusses the provenance of the WMA scope so that the Council understands the long consultation process that took place to develop the scope and then set the prescribed qualification.

**Osteopaths are primary healthcare practitioners.** Central to the competent practice of osteopathy is an understanding of the role of the primary care team and referral routes within the primary care team and to hospital-based services.

**Osteopathy is a person-centred form of manual medicine informed by osteopathic principles.** Osteopathic medicine is not confined to historical osteopathic knowledge; osteopathic philosophies and concepts inform the interpretation and application of interdisciplinary knowledge and the basic medical sciences. Osteopathic medicine is an evolving field of knowledge and incorporates new concepts as our understanding of health and disease progresses.

**Osteopaths treat people and conceptualise health and disease within a broad holistic bio-psycho-social and environmental context.** Osteopaths are particularly interested in conditions of the neuro-musculoskeletal system and pain management. Osteopaths seek to prevent disease and promote health by empowering patients through sharing knowledge of lifestyle choices that improve health outcomes.

**Osteopathic practice may be situated within a continuum of healthcare and wellness,** with osteopaths applying evidence-based approaches to the management of named pathologies and conditions through to promoting wellbeing through supportive treatment.

**The competent practice of osteopathy clearly requires broad diagnostic competencies** and a differential diagnosis is needed to determine whether a structural diagnosis and the use of osteopathic manual treatment (OMT) is

appropriate. Although osteopathic practice is often defined by OMT, the practice of osteopathy is not limited to a structural diagnosis and OMT. Whilst there may well be a somatic component to disease, OMT may not be a suitable or principal modality in every presentation.

**Osteopaths work across the lifespan and may treat individuals from birth to old age** or deliver services in group settings. Professional knowledge may be applied in various settings not limited to clinical practice, such as health promotion, education and research, health policy and healthcare management.

During the consultation process it became clear that the register under the osteopathic SOP was undifferentiated, resulting in a lack of transparency for patients/healthcare practitioners that might wish to seek out osteopaths with specific clinical skills sets and additional training. Also the register did not have any mechanism to ensure osteopaths could make additional qualifications/skills visible to the New Zealand public. Following the various consultations that took place the decision was made by the Council to create two further types of scopes for the profession.

**Vocational Scopes of Practice (VSOP)** – these allow for formal qualifications in specific areas to be acknowledged by the Council and visible on the public register. These vocational scopes are seen as an extension of preregistration training, ensuring an increased skill set in a particular area of practice. The VSOPs are detailed below;

**Gerontology** Under section 12 of the Act, the Council has prescribed the following qualifications for registration in the Gerontology Scope of Practice.

All applicants must:

- (1) be registered in the General Osteopathic Scope of Practice and
- (2) hold one of the following qualifications:

Postgraduate Diploma in Health Science in Older Adult: Health and Wellness, Auckland University of Technology or other courses of study at New Zealand tertiary institutions deemed by Council to be of similar standard and content.

or (in addition to paragraph (1) above)

In accordance with section 15(2) of the Act, satisfy the Council that they hold an overseas qualification that is, in the opinion of the Council, equivalent to, or as satisfactory as, one of the qualifications prescribed in paragraph (2) above. If

necessary in the opinion of the Council, the applicant will be required to complete further training in gerontology.

**Pain Management** Under section 12 of the Act, the Council has prescribed the following qualifications for registration in the Pain Management Scope of Practice.

All applicants must:

- (1) be registered in the General Osteopathic Scope of Practice and
- (2) hold one of the following qualifications:

Postgraduate Diploma in Health Science endorsed in Pain & Pain Management, Department of Musculoskeletal Medicine, Otago University (Christchurch), or other courses of study at New Zealand tertiary institutions deemed by Council to be of similar standard and content.

or (in addition to paragraph (1) above)

In accordance with section 15(2) of the Act, satisfy the Council that they hold an overseas qualification that is, in the opinion of the Council, equivalent to, or as satisfactory as, one of the qualifications prescribed in paragraph (2) above. If necessary in the opinion of the Council, the applicant will be required to complete further training in pain management.

**Child and Adolescent Health** Under section 12 of the Act, the Council has prescribed the following qualification for registration in the vocational scope of practice of Child and Adolescent Health:

Osteopaths who are registered in the vocational scope of practice in Child and Adolescent Health have obtained qualifications, in addition to their general osteopath qualification, that focus on the osteopathic treatment of 0–18 year olds. Applicants for registration in the vocational scope of practice in child and adolescent health must:

- (1) be registered in the General Osteopathic scope of practice; and
- (2) hold a Postgraduate Diploma in Health Science in Child Health awarded by Auckland University of Technology.

or (in addition to paragraph (1) above)

In accordance with section 15(2) of the Act, satisfy the Council that they hold an overseas qualification that is, in the opinion of the Council, equivalent to, or as satisfactory as, one of the qualifications prescribed in paragraph (2) above. If

necessary in the opinion of the Council, the applicant will be required to complete further training in Child and Adolescent Health.

**Extended Scope of Practice (ESOP) Western Medical Acupuncture and Related Needling Techniques (WMA)** – this scope was specifically designed to ensure public safety by setting educational standards that osteopaths must hold in order to use ‘dry needling’ techniques within their clinical practice. The use of ‘dry needling’ techniques prior to the ESOP being gazetted was relatively common within the osteopathic community, and the training was highly variable. Some osteopaths had completed formal tertiary qualifications in the area and others had completed a weekend seminar. This particular scope was seen to be outside of, and not an extension, of pre-registration training, hence the differentiation between the extended and vocational scopes. Initially, some training was provided for osteopaths who were currently using WMA techniques in order to be ‘grandfathered’ into the ESOP. This training was completed in 2011/2012, the details relating to this ESOP are detailed below.

### **Scope of Practice: Western Medical Acupuncture and Related Needling Techniques**

Pursuant to section 12 of the Act, the Council has prescribed the following qualifications for registration in the Scope of Practice: Western Medical Acupuncture and Related Needling Techniques.

All applicants must:

(1) hold one of the qualifications prescribed for registration in the Scope of Practice – Osteopath and

(2) hold one of the following qualifications:

- Post Graduate Certificate in Western Acupuncture, Auckland University of Technology
- Post Graduate Certificate in Western Medical Acupuncture, University of Hertfordshire (United Kingdom).

or (in addition to paragraph [ 1 ] above

(3) in accordance with section 15(2) of the Act, satisfy the Council that they hold an overseas qualification that is, in the opinion of the Council, equivalent to, or as satisfactory as, one of the qualifications prescribed in paragraph [ 2 ] above. If necessary in the opinion of the Council, the applicant will be required to complete further training in Western medical acupuncture.

## **2009-2010 OCNZ Annual Report (p4)**

The comments included in the report that arise from the OCNZ annual reports are to provide background information to the current council members about the development of the extended scope of practice in Western Medical Acupuncture and Related Needling Techniques.

*'Council has been managing a wide-ranging review of the scope of practice. In September 2009 after extensive consultation a second scope of practice was gazetted; Scope of Practice - Osteopath Using Western Medical Acupuncture and Related Needling Techniques.*

*Previously Council had issued guidance that needling techniques were not part of the osteopathic scope of practice as the accredited preregistration qualification did not prepare osteopaths for competent practice in this area. The development of this extended scope of practice for acupuncture and related needling techniques provides a mechanism for osteopaths to incorporate these techniques into their personal scope of practice whilst affording public protection by the development of a code of practice and prescribing minimum qualifications. The scope was developed in co-operation with the Health Sciences Department of AUT University in Auckland, the Physiotherapy Acupuncture Association of New Zealand and the British Medical Acupuncture Society.*

*In November 2009 Council held a symposium in Wellington on reform of the osteopathic scope of practice within the context of the New Zealand regulatory framework with representation of professional bodies from New Zealand, Australia and the U.K., N.Z. Ministry of Health, osteopathic educators and senior students and along with regulators from Australia. The meeting report was widely circulated.*

*The consensus position of the meeting was a need to reform the (general) osteopathic scope of practice to produce a statement that more closely reflects the comprehensive nature of osteopathic practice and the creation of a number of additional scopes of practice to allow individuals practitioners to be able develop their skills and clinical interests. The restricted view of practice given by the wording of the current scope may unwittingly be placing practitioner outside the scope where that was not the intention.*

*It is important that the scopes of practice are developed to reflect the reality of professional life. There needs to be mechanisms for skills and knowledge acquired in practice through post graduate study to be incorporated into one's personal / professional scope'.*

## **2010-2011 OCNZ Annual Report (p1)**

*'An important milestone for the profession was the implementation of a second scope of practice, Scope of Practice for Osteopaths using Western Medical Acupuncture (WMA) and Related Needling Techniques. The WMA scope, with the associated clinical code of practice, will help*

*ensure that patients can have confidence in the competence of those that are registered in the scope to incorporate needling techniques into their practice. Eligible registrants completed the 'grandfathering' process and a number of other registrants have already obtained the prescribed qualification from AUT University in Auckland, the Post Graduate Certificate in Western Acupuncture'.*

Feedback from the profession to the OCNZ over a number of years prompted a review and setting of the competencies a New Zealand registered osteopath should fulfil to ensure safe, professional and therapeutic use of WMA needling techniques. In mid-2023 a project was approved by OCNZ to research with the profession what the competencies for this ESOP might be. A mixed qualitative and quantitative method was used to determine the competencies from the perspectives of osteopaths, both using WMA and not using WMA. The framework for the project was set alongside the revised (2023) Competencies for Osteopathic Practice from the OCNZ. The OCNZ has organised the competencies into five domains;

1. Te Tiriti o Waitangi partnership responsibilities
2. Communication and patient partnership
3. Knowledge, skills and performance
4. Safety and quality in practice
5. Professionalism

### **Project specifications from the OCNZ**

The Council developed the Western Medical Acupuncture (WMA) and Related Needling Techniques Scope of Practice (the WMA scope) in 2009 to help ensure registrants using such techniques were competent and fit to practice using this modality.

The Council wishes develop a competency framework for needling practice for the New Zealand osteopathic profession. This framework would describe the required standards of competence necessary for safe practise and could be utilised to inform the appropriate level and content for prescribed qualifications for the scope (either existing or new). As osteopaths holding this extended scope would also be registered in the general osteopathic scope of practice, the WMA competency framework should be developed as an extension of, and work in conjunction with, the current Osteopathic Practice Competencies.

The Council is looking for providers who can lead development of this competency framework and conduct the necessary research to ensure these are underpinned by current literature and osteopathic practise in New Zealand.

There is an existing community of practice of osteopaths that currently hold the WMA scope and utilise these techniques in practice. These practitioners include those who registered in the scope through a 'grandfathering' process and those who have completed the current prescribed Tertiary qualification. We expect engagement with this community will be a core activity in developing these standards.

As a regulatory authority independent from the Crown, we have a responsibility to work with iwi and Māori to give effect to and realise the promise of Te Tiriti o Waitangi. We would expect that this work would include appropriate consideration of the principles of Te Tiriti o Waitangi as described in the Osteopathic Council Code of Conduct.

## **Literature Review**

In this literature review we use these definitions

Competencies: competencies are the integrated knowledge, skills, judgment, and attributes that enable a health professional to perform safely and effectively (Eccles et al. 2012). In the context of acupuncture, competencies should encompass both technical skills and theoretical knowledge (World Health Organization, 1999).

Western Medical Acupuncture (WMA): Building on the earlier definition, WMA is “a therapeutic modality involving the insertion of fine needles; it is an adaptation of Chinese acupuncture using current knowledge of anatomy, physiology and pathology, and the principles of evidence-based medicine” (White & Editorial Board of Acupuncture in Medicine, 2009). It’s important to note that WMA practitioners often conceptualise their needling activities biomedically rather than using Traditional Chinese Medicine (TCM) concepts (Ijaz & Boon, 2019).

The following literature is focussed on scholarly articles and international reports that speak directly to the development of a competency framework for needling practice for the New Zealand osteopathic profession, including the required standards of competence necessary for safe practise.

## **Introduction**

As osteopaths in New Zealand consider incorporating needling techniques into their practice, it’s crucial to understand the competencies required for safe and effective use. This review examines the international literature on competencies for needling practice, with a focus on informing a potential framework for osteopathic practice in New Zealand in relation to the use of needling techniques.

## **Core Competencies**

The literature suggests several core competencies for safe needling practice:

### **1. Anatomical Knowledge**

A thorough understanding of anatomy is consistently emphasised as crucial for safe needling practice. Wheway et al. (2012) note that inadequate anatomical knowledge can lead to serious adverse events such as pneumothorax. The Federation of State Boards of Physical Therapy in the United States asserts that physical therapists already possess much of the necessary anatomical knowledge from their base training (Ijaz & Boon, 2019). However, this claim is contested by other professional groups who argue that additional specialised training is necessary.

Peuker et al. (1999), as cited in Witt et al. (2009), emphasise that “traumatic complications of acupuncture are mainly caused by insufficient anatomical knowledge”. This underscores the importance of detailed anatomical understanding, particularly in relation to high-risk areas such as the thoracic region.

## 2. Clean Needle Technique

Proper hygiene and infection control procedures are essential. Witt et al. (2009) found that 97.7% of acupuncture training programs included instruction in clean needle techniques. This competency is critical for preventing infections and other complications.

White et al. (2001), as referenced in Witt et al. (2009), report that adherence to basic hygiene procedures can significantly reduce the risk of infections. This includes proper hand washing, skin disinfection, and use of sterile single-use needles.

## 3. Point Location and Needling Technique

Accurate point location and proper needling technique are fundamental. The RIGHT for Acupuncture guidelines emphasise the importance of detailing the “selection of points, operation, treatment procedures and auxiliary intervention measures” in acupuncture practice guidelines (Tang et al. 2021).

Zhang et al. (2022) highlight the importance of consistent terminology and clear descriptions of needling techniques in clinical practice guidelines; including specifying the style of acupuncture (e.g., manual, electroacupuncture), details of treatment procedures, and practitioner background.

## 4. Safety and Contraindications

Understanding safety principles and contraindications is crucial. Witt et al. (2009) reported adverse event rates of 8.6% in their large-scale study, highlighting the importance of this competency. Practitioners must be able to identify situations where needling is contraindicated and manage potential adverse events.

Brady et al. (2014), as cited in Ijaz et al. (2022), found an adverse event rate of 19.18% in a study of physiotherapist-delivered dry needling, further emphasising the need for robust safety training.

## 5. Theoretical Framework

While there is debate about the necessary theoretical underpinnings for needling practice, most sources agree on the importance of a coherent framework. The

framework may be based on traditional Chinese medicine concepts, Western biomedical principles, or a combination (Hobbs, 2019).

White and Editorial Board of Acupuncture in Medicine (2009) define Western medical acupuncture as “a therapeutic modality involving the insertion of fine needles; it is an adaptation of Chinese acupuncture using current knowledge of anatomy, physiology and pathology, and the principles of evidence-based medicine.” This definition highlights the integration of traditional techniques with modern biomedical understanding.

## 6. Evidence-Based Practice

The ability to interpret and apply current research evidence is increasingly emphasised. Hobbs (2019) argues for the importance of understanding the scientific basis of acupuncture effects and integrating this knowledge into practice.

Zhang et al. (2022) stress the need for acupuncture guidelines to be based on systematic reviews of the best available evidence, including assessment of the certainty of evidence and strength of recommendations.

## 7. Clinical Reasoning

The capacity to make informed decisions about when and how to apply needling techniques is crucial. This includes selecting appropriate treatment approaches based on patient presentation and integrating needling with other therapeutic modalities.

Ijaz et al. (2022) found that physiotherapists with more extensive acupuncture training reported better clinical outcomes, suggesting that enhanced clinical reasoning skills may develop with more comprehensive education.

## **Training Requirements**

The literature reveals significant variation in training requirements across jurisdictions and professions. The World Health Organization recommends a minimum of 200 hours of training for physicians to practice acupuncture as an adjunct therapy (Ijaz & Boon, 2019). However, requirements for allied health professionals vary widely:

- In New Zealand, the Physiotherapy Acupuncture Association recommends 150 hours of training (Kohut et al. 2011).

- In the U.K. voluntary certification bodies for acupuncture-practicing physiotherapists such as the Acupuncture Association of Chartered Physiotherapists, require 300 hours (Ijaz & Boon, 2019).
- Some U.S. states allow physical therapists to practice “dry needling” with as little as 21 hours of training. Required training hours for physiotherapists practising dry needling range from no specific requirements in 22 states to over 200 hours in Maine. Some states require physiotherapists to complete full acupuncture training programs (Ijaz & Boon, 2019).
- In Canada, some provinces require over 200 hours of training for physiotherapists practising acupuncture, while others have no specific requirements. Ontario, for example, leaves the determination of sufficient training to individual physiotherapist’s discretion (Ijaz et al. 2022). A survey of Ontario physiotherapists found that those with over 100 hours of acupuncture training reported better clinical and professional outcomes than those with less training (Ijaz et al., 2022). Many respondents felt minimum requirements should be increased to at least 100-200 hours.
- In Australia, the Australian Society of Acupuncture Physiotherapists recommends 80 hours for traditional acupuncture and only 16 hours for “dry needling” (Ijaz & Boon, 2019). There are no statutory training requirements for physiotherapists or chiropractors practising dry needling. However, the use of the title “acupuncturist” is restricted to those who have completed approved training programs (Ijaz & Boon, 2019).

### **Assessment of Competence**

The literature suggests various methods for assessing competence in needling practice:

#### 1. Theoretical Examinations

Many training programs include formal examinations to assess knowledge of anatomy, safety principles, and theoretical frameworks (Witt et al. 2009).

#### 2. Practical Skills Assessment

Hands-on assessment of needling technique is commonly recommended. The RIGHT for Acupuncture guidelines suggest that practice guidelines should specify whether a practical examination is required (Tang et al. 2021).

### 3. Clinical Supervision

Supervised clinical practice is often included in training programs to ensure competence in real-world settings (Witt et al. 2009). Ijaz et al. (2022) found that some physiotherapists emphasised the importance of clinical supervision in their training.

### 4. Continuing Education

Given the evolving nature of evidence in this field, many sources emphasise the importance of ongoing education to maintain competence (Hobbs, 2019).

## **Challenges and Considerations**

Several challenges emerge from the literature that are relevant to developing a competency framework:

#### 1. Terminology and Scope

There is ongoing debate about the distinction between “acupuncture” and “dry needling,” with implications for training requirements and scope of practice (Ijaz & Boon, 2019). Any competency framework will need to define its scope and terminology clearly.

Janz and Adams (2011), as cited in Ijaz and Boon (2019), note that in Australia, the term “dry needling” came into widespread use after statutory title protection was implemented for acupuncturists, highlighting the regulatory implications of terminology.

#### 2. Integration with Existing Practice

Consideration must be given to how needling competencies integrate with existing osteopathic practice. The literature suggests that while some baseline competencies may transfer, specific training in needling techniques is still necessary (Ijaz et al. 2022).

#### 3. Cultural Considerations

The relationship between Western needling practices and traditional Chinese acupuncture raises questions of cultural appropriation and respect for traditional knowledge (Ijaz & Boon, 2019).

#### 4. Evolving Evidence Base

As research in this field continues to develop, competency frameworks will need to be flexible enough to incorporate new evidence (Hobbs, 2019). Zhang et al. (2022)

emphasise the need for ongoing research and the periodic review of acupuncture guidelines.

## 5. Safety Monitoring

Wheway et al. (2012) highlight the importance of ongoing safety monitoring and reporting adverse events. Any competency framework should include skills in recognising, managing, and reporting adverse events.

## Conclusion

The international literature suggests a range of competencies necessary for safe and effective needling practice, including anatomical knowledge, clean needle technique, point location and needling skills, safety awareness, theoretical understanding, evidence-based practice, and clinical reasoning. Training requirements vary widely, but there is a trend towards more comprehensive education programs.

This review suggests the need for a robust competency framework that addresses these core areas for New Zealand osteopaths considering incorporating needling techniques. Such a framework should be informed by international best practices while being tailored to the specific context of osteopathic practice in New Zealand. It should also be flexible enough to evolve with the emerging evidence base in this field.

The development of such a framework presents an opportunity to establish high standards for needling practice within osteopathy, potentially setting a benchmark for other professions. However, it also requires careful consideration of regulatory, ethical, and cultural implications, as well as an ongoing commitment to evidence-based practice and safety monitoring.

The obvious departure point for competencies in the WMA extended scope for osteopaths in New Zealand is the work of WHO that has taken place over the years since the release of the initial release of their *Guidelines on basic training and safety in acupuncture* (World Health Organization, 1999). They have recently released their *Benchmarks for the Training of Acupuncture* (World Health Organization, 2020). This latter publication includes a large section on “Training for people with a conventional medical background”, and sets out competencies that map well onto the OCNZ competencies for practice.

Key competency areas identified by the WHO are mapped below onto the OCNZ capabilities:

OCNZ competencies	WHO competencies in Acupuncture (1999) <sup>1</sup>	WHO benchmarks for the training of acupuncture (2020) <sup>2</sup>
<b>Knowledge, skills and performance</b>	1. Brief history of acupuncture 2. Basic Theory	1. Basic theory, including both TCM concepts and modern scientific explanations
<b>Safety and quality in practice</b>	3. Knowledge of acupuncture points 4. Diagnosis  5. Treatment (as permitted by national laws and health service regulations) (including Principles, Guidelines on safety in acupuncture & Treatment techniques)	2. Diagnosis in acupuncture and point location  3. Treatment techniques 4. Indications and contraindications
<b>Te Tiriti o Waitangi partnership responsibilities</b>		5. Ethical and Professional Practice:
<b>Communication and patient partnership</b>		6. Communication Skills

<sup>1</sup> World Health Organization. (1999). Guidelines on basic training and safety in acupuncture. WHO.

<sup>2</sup> World Health Organization. (2020). WHO Benchmarks for the Training of Acupuncture. WHO.

## **Consultation with Osteopathic Experts in WMA (Qualitative Interviews)**

For the qualitative interviews, we recruited through our teams' connections to get the broadest possible participant variation across the structured interviews with osteopaths that currently hold the WMA scope of practice. Of those interviewed, some were trained in England and some had completed the OCNZ prescribed qualification. In terms of duration of practice under WMA, one person had registered with the scope less than one year ago, and several osteopaths had been using WMA for several decades, before the WMA scope and since the WMA scope. From those interviews and the literature review, we gathered a number of possible statements. We then workshopped those within the research team, and the results are the proposed WMA competency statements used in the Q-sort.

### Interview questions

#### **1. Te Tiriti o Waitangi partnership responsibilities**

1.1 How do you see your responsibilities in relation to tangata whenua and tangata Tiriti under te Tiriti o Waitangi in the provision of WMA?

1.2 What do you see as possible alignments between WMA approaches to health care and Māori models of health?

1.3 Do you have any specific cultural considerations in relation to the use of WMA techniques for Māori patients?

#### **2. Communication and patient partnership**

2.1 What skills do you feel are important when you are using WMA in regard to the following.

2.1.1 Socio-cultural factors.

2.1.2 Diversity and ensuring inclusive practice.

2.1.3 Cultural safety.

2.2 How do you explain WMA to patients and ensure patient and/or caregiver understanding?

2.3 How do you ensure that informed consent is gained for the provision of WMA to a patient?

2.4 How do you ensure you are working in partnership with patients and that their goals and concerns are identified and integrated into the clinical analysis and treatment plan specifically in relation to WMA?

### **3. Knowledge, skills and performance**

3.1 How do you ensure you work within the WMA extended scope of practice?

3.2 What skills (in addition to those required to practice osteopathy) do you think are required to safely and competently use WMA in practice?

3.3 What diagnostic processes do you use when deciding to offer WMA to a patient and how does this affect patient management and prognosis?

3.4 What information do you record in patient notes in relation to the provision of WMA?

3.5 What is your understanding of the evidence that supports the use of WMA in practice?

3.6 Are there certain clinical presentations or conditions that rule out the use of WMA?

### **4. Safety and quality in practice**

4.1 How do you ensure the provision of WMA occurs in a safe, legal, ethical, sustainable and safe manner?

4.2 How do you ensure your physical environment allows for the safe provision of WMA in relation to patient privacy, comfort, and confidentiality?

4.3 How do you ensure appropriate care of yourself and your patients when providing WMA?

4.4 In relation to the provision of WMA how do you manage risk/adverse reactions effectively and responsibly?

4.5 How do you ensure your WMA skills maintain currency in regard to ongoing learning?

## **5. Professionalism**

5.1 Do you interact with other WMA providers to ensure the provision of the best patient care?

5.2 How do you perceive WMA fits within general healthcare systems?

5.3 How do you maintain an awareness of, and adherence to, regulatory and legal requirements when practising WMA?

Finally, we asked: Are there any other comments you would like to make in relation to the possible competencies for registered osteopaths using WMA in practice?

### **Findings from thematic analysis**

- Participants were generally unable to articulate a clear set of skills/competencies required, no doubt due to the lack of specified competencies in the literature or from accrediting bodies.
- Treaty and Māori knowledge in relation to WMA, and treatment more generally was woeful. However, it is clear that many appreciate the overlap between Māori models of health and osteopathic ideas and practice.
- Most discussions of skills required and competencies suggested that the great majority of skills required for practising WMA were acquired during osteopathic training – e.g., anatomy, physiology, communication with patients, consenting...
- All participants continually stressed the importance of communication with patients.
- All participants repeatedly stressed that they were working in partnership with the patients and informed consent was always sought.

### **Extra skills or competencies were:**

- Needle safety

- Explaining WMA in a way that led to informed consent (so knowing the evidence base, and how to communicate that)
- Proper understanding of needle use and disposal given a variety of cultural concerns
- Avoiding adverse events from needles (most particularly Pneumothorax)



Word cloud of key concepts



## **Consultation with the wider osteopathic profession on WMA competencies (Q method interviews)**

The research team workshoped the qualitative interview results and produced a set of statements on the issue (in this case, 24 statements, based on interviews with experts on WMA and osteopathy). Those statements of competency were

- Knowledge of diverse health models, including those specific to Māori.
- Te Tiriti (Treaty of Waitangi) informed WMA practice.
- Culturally-safe WMA practice specifically in relation to Māori patients.
- Socially-inclusive WMA practice (i.e. serving diverse populations' needs).
- Informed consent specifically in relation to WMA practice.
- Communication to patients of clinical reasoning to use or not use WMA.
- Clear communication to patients and whanau in relation to WMA practice.
- Explicit communication relating to the use of WMA around sensitive areas, (following guidance from the OCNZ detailing examination and treatment of/around such areas).
- WMA-specific clinical skills (i.e. beyond osteopathic training).
- WMA-specific clinical reasoning (i.e. beyond osteopathic training)
- WMA-specific knowledge of contra-indications.
- Accurate recording of WMA treatment in clinical notes.
- Evidence-based/informed WMA practice.
- Competent integration of WMA into osteopathic practice.
- Safe needle use.
- Safe needle disposal.
- Ability to manage a range of adverse reactions.
- Knowledge of regulatory and legislative responsibilities (e.g. Privacy Act, Health Professionals Competency Assurance Act , WMA scope of practice regulations OCNZ, Health and Safety at Work Act).
- Effective ongoing competency in WMA through completing WMA specific continuing professional development (CPD).
- Ensuring clinic environment meets health and safety requirements.
- Ensuring clinical environment supports safe practice.
- Ensuring practitioner is fit to practice using WMA.
- Competent use of WMA alongside other clinical interventions in the broader health system.
- Participation in WMA-specific peer group.

These statements were created to enable the team to perform a Q methodology study to gauge the level of consensus, and various viewpoints about the competencies, and osteopaths' views of the relative priority of these competencies.

Q method is good for developing such ideas as it allows researchers to study people's subjectivity on an issue, i.e. to understand their viewpoint on a topic. In this case, the competencies were for WMA practice as an osteopath.

To check the veracity of, and attitudes toward, the proposed competency statements we created a qmethod survey, using the statements (from the interviews) as the cards to be sorted by participants. For the Q sort survey we recruited via emails sent to registered osteopaths. The emails were gathered from the public information on the OCNZ website. People who had received the email could then log anonymously onto the site (qmethodsoftware.com). Sixteen scope holders and fifteen non-scope holders completed the card sort, for a total of 31 Q sort participants. Ten identified themselves as female, 18 as male, and one person did not answer. Fourteen were 30-50 years old, 12 were 51 or older, and one was younger than 30; two did not fill out their age. Eight lived in the South Island, eight in the Auckland Region, nine in the North Island but outside the Auckland region, and two did not answer.

As noted, the Q sorts were online. The statements were each placed on a separate card, and each participant was asked to rank them in a forced normal distribution, like the figure below.



Osteopaths were in this case asked to place the statements onto a normal distribution grid from “least like how they think (-4)” to “most like how they think (+4).”

Factor analysis is used to analyse the data. Q methodology looks for correlations between where each participant placed each statement relative to all the other statements (the math is the same as that used in quantum mechanics i.e. it compares the whole sort of a participant, in relation to where other participants are. It does not compare each variable. The factors produced are each a composite q-sort of those participants who sorted like each other. These are used to produce the stories or narratives for each factor.

A crib sheet is developed for each viewpoint, highlighting the statements at either end of the distribution and those ranked lower or higher compared to other factors.

In the analysis below, we list the number of the statement, the statement itself, and then where it was ranked in brackets (from -4 to +4).

Defining Q sorts are identified for each Q sort.

There is a summary of where there is consensus and agreement across all the viewpoints or factors.

The factor analysis produced three factors or composite viewpoints.

The factors or composite viewpoint can be compared by listing them from +4 to -4. The reader is encouraged not to read a q method ranking as a Likert scale. Instead, it is the relative rank of each statement in relation to the other statements in the factor, and the way that groups of statements hold together differently across the viewpoints that are of interest.

Ranking	Factor 1	Factor 2	Factor 3
+4	Ensuring practitioner is fit to practice using WMA.	Safe needle use.	Informed consent specifically in relation to WMA practice.
+3	WMA-specific knowledge of contra-indications.	Ensuring practitioner is fit to practice using WMA.	WMA-specific clinical reasoning (i.e. beyond osteopathic training)
+3	Safe needle use.	Safe needle disposal.	WMA-specific clinical skills (i.e. beyond osteopathic training).
+2	Informed consent specifically in relation to WMA practice.	Competent use of WMA alongside other clinical interventions in the broader health system.	Evidence-based/informed WMA practice.
+2	Explicit communication relating to the use of WMA around sensitive areas, (following guidance from the OCNZ detailing examination and treatment of/around such areas).	Ability to manage a range of adverse reactions.	Accurate recording of WMA treatment in clinical notes.

+2	Ability to manage a range of adverse reactions.	Ensuring clinical environment supports safe practice.	Explicit communication relating to the use of WMA around sensitive areas, (following guidance from the OCNZ detailing examination and treatment of/around such areas).
+1	Safe needle disposal.	Evidence-based/informed WMA practice.	Clear communication to patients and whanau in relation to WMA practice.
+1	Clear communication to patients and whanau in relation to WMA practice.	Effective ongoing competency in WMA through completing WMA specific continuing professional development (CPD).	Effective ongoing competency in WMA through completing WMA specific continuing professional development (CPD).
+1	Ensuring clinic environment meets health and safety requirements.	Ensuring clinic environment meets health and safety requirements.	Communication to patients of clinical reasoning to use or not use WMA.
+1	Accurate recording of WMA treatment in clinical notes.	Knowledge of regulatory and legislative responsibilities (e.g. Privacy Act, Health Professionals Competency Assurance Act , WMA scope of practice regulations OCNZ, Health and Safety at Work Act).	Safe needle use.
0	Ensuring clinical environment supports safe practice.	WMA-specific knowledge of contra-indications.	Ensuring practitioner is fit to practice using WMA.
0	Communication to patients of clinical reasoning to use or not use WMA.	Competent integration of WMA into osteopathic practice.	Safe needle disposal.
0	Evidence-based/informed WMA practice.	WMA-specific clinical reasoning (i.e. beyond osteopathic training)	Knowledge of regulatory and legislative responsibilities (e.g. Privacy Act, Health Professionals Competency Assurance Act , WMA scope of practice regulations OCNZ, Health and Safety at Work Act).
0	WMA-specific clinical skills (i.e. beyond osteopathic training).	WMA-specific clinical skills (i.e. beyond osteopathic training).	Ability to manage a range of adverse reactions.
-1	WMA-specific clinical reasoning (i.e. beyond osteopathic training)	Informed consent specifically in relation to WMA practice.	Competent integration of WMA into osteopathic practice.
-1	Competent integration of WMA into osteopathic practice.	Accurate recording of WMA treatment in clinical notes.	WMA-specific knowledge of contra-indications.

-1	Effective ongoing competency in WMA through completing WMA specific continuing professional development (CPD).	Clear communication to patients and whanau in relation to WMA practice.	Te Tiriti (Treaty of Waitangi) informed WMA practice.
-1	Competent use of WMA alongside other clinical interventions in the broader health system.	Communication to patients of clinical reasoning to use or not use WMA.	Participation in WMA-specific peer group.
-2	Culturally-safe WMA practice specifically in relation to Māori patients.	Explicit communication relating to the use of WMA around sensitive areas, (following guidance from the OCNZ detailing examination and treatment of/around such areas).	Ensuring clinical environment supports safe practice.
-2	Knowledge of regulatory and legislative responsibilities (e.g. Privacy Act, Health Professionals Competency Assurance Act , WMA scope of practice regulations {OCNZ} Health and Safety at Work Act).	Participation in WMA-specific peer group.	Culturally-safe WMA practice specifically in relation to Māori patients.
-2	Socially-inclusive WMA practice (i.e. serving diverse populations' needs).	Socially-inclusive WMA practice (i.e. serving diverse populations' needs).	Socially-inclusive WMA practice (i.e. serving diverse populations' needs).
-3	Participation in WMA-specific peer group.	Knowledge of diverse health models, including those specific to Māori.	Ensuring clinic environment meets health and safety requirements.
-3	Knowledge of diverse health models, including those specific to Māori.	Culturally-safe WMA practice specifically in relation to Māori patients.	Knowledge of diverse health models, including those specific to Māori.
-4	Te Tiriti (Treaty of Waitangi) informed WMA practice.	Te Tiriti (Treaty of Waitangi) informed WMA practice.	Competent use of WMA alongside other clinical interventions in the broader health system.

## This Q method

As noted above 31 sorts were completed online (16 WMA scope holders) and (15 non-scope holders). Before launching the online sorts, we checked the statements 'made sense' by interviewing 3 experts while they were doing the sort and asked if

there were any other statements to add, or if they had any concerns; no participants asked for additional statements and no concerns were shared with us.

We asked participants to complete a very quick demographic study to see if any trends were revealed. They were not. The demographics received indicated that we had a reasonable spread. Two participants recorded only their length of osteopathic service and that they did not hold a WMA scope i.e., not their age or location. The rest of the demographics were:

- 1 participant was under 30 years old, 14 were 30-50 years old, and 11 were over 50 years old
- 9 were female, the rest were male, with no other genders reported
- 11 had practised for 10-20 years, 12 for longer than 20 years, and 6 had practiced for less than 10 years.

Across the three factors, or composite viewpoints that emerged in the analysis of the q sorts, all three viewpoints were clear and positive that osteopaths who wish to use WMA ought to be competent in

- WMA clinical skills and training (i.e. beyond osteopathic training)
- Managing adverse reactions
- Safe needle use and disposal
- Informed consent specific to WMA
- Creating ongoing learning
- Ensuring their clinical setting supports them
- Knowledge of the broad regulatory regime around WMA

This cohesion of viewpoints was not unexpected and is a tribute to years of work by educators in New Zealand (Unitec) and abroad, the Council, the associations, the health and disability commissioner, the peer groups in emphasising the foundations of good osteopathic practice, and finally, the scope-holders wanting good and safe WMA practice.

We were surprised by the de-prioritisation of socially inclusive practices (and Treaty responsiveness) by all factors. For instance, all factors had *Socially-inclusive WMA practice (i.e. serving diverse populations' needs)*, at -2, and all had *knowledge of diverse health models, including those specific to Māori* at -3. All the factors also had *culturally safe WMA practice, specifically in relation to Māori patients* at -2 or -3. There is work to be done given that osteopaths are a primary healthcare service, and Māori and other otherwise marginalised populations continue to suffer significant health inequalities.

- There were three factors (or narratives or overall stories) that emerged
  - There are different emphases in the stories. Story one and two both prioritise fitness to practice WMA and needle safety and managing adverse reactions.
  - However, there are subtle differences between stories one and two;
    - story one emphasises the importance of competencies in communication, informed consent and clinical notes, while
    - story two emphasises competencies in the broader clinical setting, regulatory regime and ongoing training.
- Story 3 prioritises the need for specific clinical skills and training for WMA (i.e. beyond osteopathic training) and is more concerned with socially inclusive and treaty-informed practice.
- Demographics were insignificant in the analysis: there were no obvious correlations between the stories and particular demographics, length of osteopathic practice, or whether the respondents were WMA scope holders or not.

Below are the initial q sorts, with a table that provides the highlights for each story or composite sorts. Underneath those tables are the codes for the respondents whose sorts were used to make up the stories, with the demographic data they chose to provide (some chose only to provide their age, and not place, some chose to provide no demographics)

### Factor one

Statements ranked at -4 & -3	Some statements that ranked lower in this factor compared to others	Some statements that ranked higher in this factor compared to others	Statements ranked at +3 & +4
24 Participation in WMA-specific peer group. (-3)	13 Evidence-based/informed WMA practice. (0) ***	22 Ensuring practitioner is fit to practice using WMA.(+4)	22 Ensuring practitioner is fit to practice using WMA. (+4)
1 Knowledge of diverse health models, including those specific to Māori. (-3)	10 WMA-specific clinical reasoning (i.e. beyond osteopathic training) (-1) ***	11 WMA-specific knowledge of contra-indications.(+3)***	11 WMA-specific knowledge of contra-indications. (+3)
2 Te Tiriti (Treaty of Waitangi) informed WMA practice. (-4)	19 Effective ongoing competency in WMA through completing WMA specific continuing professional development (CPD). (-1) ***		15 Safe needle use. (+3)

	<p>18 Knowledge of regulatory and legislative responsibilities (e.g. Privacy Act, Health Professionals Competency Assurance Act, WMA scope of practice regulations OCNZ, Health and Safety at Work Act). (-2) ***</p> <p>4 Socially inclusive WMA practice (i.e. serving diverse populations' needs). (-2) ***</p>		
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\*\*\*= very different position than the other composite sorts (\*\*\*) means the statement is positioned at least two rows away from the statement in the other composite sorts, \*\* means the statement is at least one row from the other sorts).

**Distinguishing sorts (years old, gender, North/South Island/Auckland, osteopathic practice years) S.H. = scope holders**

30-50yrs, female, <10

30-50yrs, female, <10, SH

Over 50yrs, female, <21 yrs.

Over 50yrs, male, <21 yrs.

Over 50yrs, male, <21 yrs.

Over 50yrs, male, 10-20 yrs. SH

Over 50yrs, male, 10-20 yrs.

30-50yrs , male, 10-20 yrs.

<30yrs, Male, <10

<30yrs, Male, <10

Male, Auckland, <10 yrs., S.H.

To repeat what we stated at the outset of this analysis, there was no clear demographic trend in any of the composite viewpoints (i.e. age, practice years, gender, or holding a WMA extended scope seemed to play no part in participants sorting of the statements).

## Factor Two

Statements ranked at -4 & -3	Some statements that ranked lower in this factor compared to others	Some statements that ranked higher in this factor compared to others	Statements ranked at +3 & +4
<p>1 Knowledge of diverse health models, including those specific to Māori. (-3)</p> <p>3 Culturally safe WMA practice specifically in relation to Māori patients. (-3)</p> <p>2 Te Tiriti (Treaty of Waitangi) informed WMA practice. (-4)</p>	<p>5 Informed consent specifically in relation to WMA practice. (-1) **</p> <p>12 Accurate recording of WMA treatment in clinical notes. (-1) ***</p> <p>7 Clear communication to patients and whanau in relation to WMA practice (-1) ***</p> <p>6 Communication to patients of clinical reasoning to use or not use WMA. (-1) ***</p> <p>8 Explicit communication relating to the use of WMA around sensitive areas, (following guidance from the OCNZ detailing examination and treatment of/around such areas). (-2) ***</p>	<p>15 Safe needle use. (+4)</p> <p>16 Safe needle disposal.(+3)</p> <p>23 Competent use of WMA alongside other clinical interventions in the broader health system.(+2) ***</p> <p>17 Ability to manage a range of adverse reactions. (+2)</p> <p>21 Ensuring clinical environment supports safe practice. (+2) ***</p> <p>18 Knowledge of regulatory and legislative responsibilities (e.g. Privacy Act, Health Professionals Competency Assurance Act , WMA scope of practice regulations OCNZ, Health and Safety at Work Act). (+1)</p> <p>14 Competent integration of WMA into osteopathic practice.(0)</p>	<p>15 Safe needle use. (+4)</p> <p>22 Ensuring practitioner is fit to practice using WMA. (+3)</p> <p>16 Safe needle disposal.(+3)**</p>

**Distinguishing sorts (years old, gender, North/South Island/Auckland, osteopathic practice years) S.H. = scope holders**

30-50yrs., female, >10yrs

30-50yrs, Female, 10-20yrs

30-50yrs, Female, >10yrs

30-50yrs, female, 10-20yts

30-50yrs male, >10yrs, SH

30-50yrs. male <21yrs, SH

30-50yrs, male, 10-20, S.H.

### Factor Three

Statements ranked at -4 & -3	Some statements that ranked lower in this factor compared to others	Some statements that ranked higher in this factor compared to others	Statements ranked at +3 & +4
<p>20 Ensuring clinic environment meets health and safety requirements. (-3)</p> <p>1 Knowledge of diverse health models, including those specific to Māori. (-3)</p> <p>23 Competent use of WMA alongside other clinical interventions in the broader health system. (-4)</p>	<p>22 Ensuring practitioner is fit to practice using WMA. (0) ***</p> <p>16 Safe needle disposal. (0) ***</p> <p>17 Ability to manage a range of adverse reactions. (0) ***</p> <p>11 WMA-specific knowledge of contra-indications. (-1) ***</p> <p>21 Ensuring clinical environment supports safe practice. (-2) ***</p> <p>20 Ensuring clinic environment meets health and safety requirements. (-3) ***</p>	<p>5 Informed consent specifically in relation to WMA practice (+4)</p> <p>10 WMA-specific clinical reasoning (i.e. beyond osteopathic training) (+3) ***</p> <p>9 WMA-specific clinical skills (i.e. beyond osteopathic training). (+3) ***</p> <p>13 Evidence-based/informed WMA practice. (+2)</p> <p>12 Accurate recording of WMA treatment in clinical notes. (+2) **</p>	<p>5 Informed consent specifically in relation to WMA practice. (+4)</p> <p>10 WMA-specific clinical reasoning (i.e. beyond osteopathic training) (+3)</p> <p>9 WMA-specific clinical skills (i.e. beyond osteopathic training). (+3)</p>

**Distinguishing sorts (years old, gender, North/South Island/Auckland, osteopathic practice years) S.H. = scope holders**

Over 50yrs., female 21+

30-50yrs., female 21+

30-50yrs., male, 10-20, SH

**Consensus statements for all factors**

Nm	Statement	Factor 1	Factor 2	Factor 3
4	Socially-inclusive WMA practice (i.e. serving diverse populations' needs).	-2	-2	-2
1	Knowledge of diverse health models, including those specific to Māori.	-3	-3	-3
24	Participation in WMA-specific peer group.	-3	-2	-1
3	Culturally-safe WMA practice specifically in relation to Māori patients.	-2	-3	-2
14	Competent integration of WMA into osteopathic practice.	-1	0	-1

## Benefits and limitations of Q method

Q method is an excellent way of exploring subjective attitudes within a population (Cross, 2004). Q provides an excellent method for transparently finding the ‘language games’ or ‘stories’ circulating about a phenomenon in the target population. So in this study, we find there are three stories or narratives that are used when talking about the proposed WMA competencies by the osteopathic profession. The differences between them are small: the narratives all tend toward agreement on the need for a focus in the competencies on safety and competence.

Given the sample size of 31 and the saturation in the data (the lack of new views emerging) of the views we gathered, we think that the stories in the report (the Q factors) generally represent the stories circulating in the osteopathic population. We think our methodology has identified the dominant stories osteopaths in New Zealand use to speak about WMA competencies.

This is not to say that this or any Q method is *scientifically* correct in representing the whole osteopathic population’s attitudes toward the competencies. It is not possible to say, based on this Q method study, that all the osteopaths in New Zealand are as agreeable about the proposed competencies as our participants: some may disagree entirely with the competencies.

Inferences about the osteopathic population’s attitudes could only be thought to be scientifically plausible after an r-method survey that sampled enough participants to be statistically valid. As the seminal researcher and writer on Q in the late 21st century Brown (2002) concludes, “The small respondent samples employed in Q technique studies are not secure foundations from which to make inferences concerning trait proportions in a population”. For a scientifically plausible survey, with a margin of error of 5%, and a confidence level of 95%, an r-method survey focussed on assessing the traits of the osteopathic profession relevant to WMA, the Council should gather at least 242 respondents.

For all of the limitations of Q, however, we do note that a crucial expected or hypothesised cleavage in the data, between WMA holders and non-WMA holders, could not be substantiated. There was no difference in the perspectives of the WMA holders and non-WMA holders; both groups determined the same competencies to be essential, with all WMA holders using a large percentage of their osteopathic knowledge, skills and attitudes (KSA) when using WMA techniques.

## Conclusions

Each of the domains below contains the specific competency statements made by participants during the research; it is these statements that the research team believes should guide the Council in terms of gaps in KSAs for osteopaths holding the osteopathic SOP.

### 1. Te Tiriti o Waitangi partnership responsibilities

Most participants did not prioritise socially inclusive and Te Tiriti o Waitangi responsiveness, both WMA holders and non-WMA holders. Understanding of Māori health models, other diverse health models, culturally safe WMA practice for Māori patients, and Te Tiriti o Waitangi informed WMA practice were also not prioritised by participants. Of note was a number of comments through the interviews where participants felt that following appropriate communication and informed consenting processes ensured the practitioner met all cultural responsibilities.

#### Specific quotes from the interviews with WMA holders

*'There may be regions of the body, particularly around the groin or other regions of the body that, yep, patients should not feel threatened or uncomfortable about.*

*So I think that communication like stating what and how we plan to use the evidence to allow for patient decision making'.*

*'So put the evidence in front of the patient, allow them to make some decisions as to do I or do I not want this as a part of my treatment approach'.*

*'Well, I think like anything, I just, I talk to them and get consent and explain what I'm doing and so they know exactly what's happening'.*

*'But it's really just being considerate of every patient, wherever they're from or beliefs or whatever that I inform them about what I want to do, what I think is going to happen and whether they're happy with that before anything happens'.*

*'Look, and I don't proclaim to be an expert on Māori models of health, but they, I mean, I mean like osteopathy, they include the whole body'.*

*'I mean, I think everyone's the same really, you know, they're all human beings with their own identities and idiosyncrasies and backgrounds'.*

**Proposed competency statement** – Practitioners demonstrate competency of practice specifically in relation to Te Tiriti o Waitangi when using WMA techniques.

## 2. Communication and patient partnership

Within this domain it was clear that the participants were utilising their communication and patient partnership skills from their osteopathic practice. Informed consent was paramount and adjusted to the use of needles with patients. Participants valued sharing the clinical reasoning behind the use of WMA with their patients as part of the consenting process. Participants also commented on the need for specific consent in relation to sensitive areas and noted the guidance from the OCNZ in relation to this.

### Specific quotes from the interviews with WMA holders

*I think it's just communication really, letting people know what I want to do and then they let me know if they have any issues around that because of their cultural traditions'.*

*Yes, really just explaining what you're doing and working as a partnership between the patient and the practitioner so each understands what they're trying to do'.*

*'So it's very much a patient practitioner relationship where there's quite a bit of back and forth listening to what they say'.*

*Well, you need good communication, but you need you need that for osteopathy too'.*

*Letting the patient know what I am wanting to do and why, and possible effects is the same for WMA as it is for osteo treatment'.*

*If they don't want needles then I will use other approaches, it's about having a good relationship with the patient so they know they let you know if they don't want something done'.*

**Proposed competency statements** – Practitioners are skilled in specific informed consent and communication with patients when discussing WMA.

**Proposed competency statements** – Practitioners should be skilled in explaining the clinical reasoning to support the use (or not) of WMA for each patient.

**Proposed competency statements** – Practitioners should be skilled in informing not only the patient of WMA use/affect but also the wider whanau.

**Proposed competency statements** – Practitioners should follow the OCNZ Examination and Treatment of Sensitive Areas and communication with patients related to WMA use in these areas should be explicit and guideline led.

## 3. Knowledge, skills and performance

In relation to this domain, it was clear that the participants viewed a range of skills as critical in the application of WMA in a clinical setting. It was also clear that the

use of WMA should be evidence based/informed in clinical practice. Participants highly valued the understanding of contra-indications to the use of WMA and WMA specific clinical reasoning to justify its application with patients.

### **Specific quotes from the interviews with WMA holders**

*‘But we often talk about and also at a peer group we might talk there’s a few people here at my peer group who also use WMA’.*

*‘The Physio Acupuncture Association New Zealand courses are often very appropriate for us, and once you’ve done a few of them, they seem to just repeat the same old stuff and you know, the dry needling’.*

*‘But I think, you know, keeping up to date with some research is always helpful just to, you know, be aware of what else is happening around WMA’.*

*‘Well I mean always consider other potential diagnosis you know differential diagnosis see what else is potentially it could be but WMA I think fits so well with osteopathy that it’s a great way to work on the nervous system. Because if people are in pain you want the nervous system to calm down you want the parasympathetics up osteopathy can do that’.*

*‘So every point is recorded, and I do it according pretty much to the Chinese way of recording a point I record’.*

**Proposed competency statements –** Practitioners demonstrate competence with WMA specific clinical skills.

**Proposed competency statements -** Practitioners demonstrate competence with WMA specific clinical reasoning.

**Proposed competency statements -** Practitioners demonstrate competence with WMA specific understanding of contraindications when applying WMA in a clinical setting.

**Proposed competency statements -** Practitioners demonstrate competence with WMA specific record keeping.

**Proposed competency statements -** Practitioners understand WMA specific evidence-based/informed practice and this is integrated appropriately within the osteopathic consultation and treatment approach.

## **4. Safety and quality in practice**

Participants were clearly aware of the need to practice safely in relation to WMA use, comments were focused around three main areas. Firstly the actual safe

use/disposal of needles, secondly that the environment (including the practitioner) was a safe place to practice and thirdly (this was not a priority for participants) the overall regulatory environment, specific regulations and laws was followed. Also of note within this domain arose comments around the desire to access WMA specific continuing professional development (CPD). While this last comment is currently part of the ongoing CPD scheme run by the Council, where registrants should take professional responsibility for their competence in all areas of practice it was noted by a number of participants that there is a lack of structure to ongoing professional development within this area of practice. This is likely not relevant to councils work but was worth noting in the report as it indicated a clear desire by the participants to maintain and develop the currency of their KSA's.

### **Specific quotes from the interviews with WMA holders**

*'Also, safety is, you know, letting them know that they are individually sterilised, state needles are used once, you know, disposed of safely.'*

*'If there is an adverse reaction of fainting or pain or something, you know, I'll take the needles out straight away, I'll get them to just recovery position if that's needed.'*

*'Sometimes they might just feel a bit strange and I might even sit them in reception for, you know, however long they need. Get the receptionist, to look after them.'*

*'So, you know, there are conditions where I guess it is not contraindicated, but they are relatively contraindications.'*

*'My clinic is a safe place for osteo and WMA.'*

*'There are lots of medical conditions where you would not use needles.'*

**Proposed competency statements** – Practitioners are competent in safe needle use, disposal and can manage a range of adverse reactions following use of WMA.

**Proposed competency statements** – Practitioners are aware of their need to provide a safe environment in which to use WMA techniques complying to health and safety requirements.

**Proposed competency statements** – Practitioners have an appropriate understanding of the regulatory environment within which they are working responsibilities (e.g. Privacy Act, Health Professionals Competency Assurance Act, WMA scope of practice regulations OCNZ, Health and Safety at Work Act).

**Proposed competency statements** – Practitioners ensure ongoing competency in relation to WMA practice through CPD.

## 5. Professionalism

Participants commented that this is part of their work as an osteopath and that the professional role simply expanded to the use of WMA but that there were no additional skills that they felt were required to practice in a safe and competent manner. However there were two themes that did arise, firstly that practitioners should be competent to use WMA alongside other interventions the patient might be using. Secondly participants commented that WMA holders should be involved in a WMA specific peer group. Again this is slightly outside of the project brief but worth noting given the comments in the previous section.

### Specific quotes from the interviews with WMA holders

*I mean, it's information you get from the council or sometimes the association also gives regulatory stuff.*

*But yeah, it's just being aware of what the council does and what it, what it advises, you know, because they're the ones that look after us. But through looking after the patient, you know, keeping us doing the right things and not doing the wrong thing'.*

*'Specifically in relation to WMA think it's giving them the opportunity to ask questions before we act. So before I apply any treatment, I think it's really important that patients have an understanding of a working diagnosis'.*

*In terms of currency, I'll be honest, I haven't had access to any further courses since COVID. I know I am due to do more training and that is on that is my intention for next year'.*

*Well, I guess like the Osteopathic Council of New Zealand sets out what is within that extended scope of practice, the regulatory and legal requirements for practicing Western Medical Acupuncture'.*

*I think it would be really good to have some more clear guidelines around additional training beyond what is expected to get that extended scope of practice and the frequency of that training'.*

**Proposed competency statements – Practitioners should be competent to use WMA with patients that are undergoing other clinical interventions.**

## The summary of proposed competencies for practice:

<p>Competencies for Practice</p>	<p>Practitioners demonstrate competency of practice specifically in relation to Te Tiriti o Waitangi when using WMA techniques.</p> <p>Practitioners are skilled in specific informed consent and communication with patients when discussing WMA.</p> <p>Practitioners should be skilled in explaining the clinical reasoning to supporting the use (or not) of WMA for each patient.</p> <p>Practitioners should be skilled in informing the patient of WMA use/effect and the wider whanau.</p> <p>Practitioners should follow the OCNZ Examination and Treatment of Sensitive Areas, and communication with patients related to WMA use in these areas should be explicit and guideline-led.</p> <p>Practitioners demonstrate competence with WMA-specific clinical skills.</p> <p>Practitioners demonstrate competence with WMA-specific clinical reasoning.</p> <p>Practitioners demonstrate competence with WMA specific understanding of contraindications when applying WMA in a clinical setting.</p> <p>Practitioners demonstrate competence with WMA specific record keeping.</p> <p>Practitioners understand WMA specific evidence-based/informed practice, and this is integrated appropriately within the osteopathic consultation and treatment approach.</p> <p>Practitioners are competent in safe needle use and disposal and can manage a range of adverse reactions following the use of WMA.</p> <p>Practitioners are aware of their need to provide a safe environment in which to use WMA techniques, ensuring compliance with health and safety requirements.</p> <p>Practitioners have an appropriate understanding of the regulatory environment within which they are working responsibilities (e.g. Privacy Act, Health Professionals Competency Assurance Act , WMA scope of practice regulations OCNZ, Health and Safety at Work Act).</p> <p>Practitioners ensure their ongoing competency in WMA practice through CPD.</p> <p>Practitioners should be competent to use WMA with patients who are undergoing other clinical interventions.</p>
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## Bibliography

- Aung, S. K. H. (1994). The clinical use of acupuncture in family medicine. *Acupuncture in Medicine*, 12(2), 104–107. <https://doi.org/10.1136/aim.12.2.104>
- Baldry, P. (2005). The Integration of Acupuncture within Medicine in the U.K. – the British Medical Acupuncture Society—S 25Th Anniversary: *Acupuncture in Medicine*, 23(1), 2–12. <https://doi.org/10.1136/aim.23.1.2>
- Birch, S., Birch Stephen, Soo, L., Lee, M. S., Lee, M. S., Alraek, T., AlraekTerje, KimTae-Hun, Kim, T.-H., & Kim, T.-H. (2018). Overview of Treatment Guidelines and Clinical Practical Guidelines That Recommend the Use of Acupuncture: A Bibliometric Analysis. *Journal of Alternative and Complementary Medicine*, 24(8), 752–769. <https://doi.org/10.1089/acm.2018.0092>
- Bishop, F. L., Amos, N., Yu, H., & Lewith, G. (2012). Healthcare sector and complementary medicine: Practitioners' experiences of delivering acupuncture in the public and private sectors. *Primary Health Care Research & Development*, 13(3), 269–278. <https://doi.org/10.1017/s1463423612000035>
- Brady, S., McEvoy, J., Dommerholt, J., & Doody, C. (2014). Adverse events following trigger point dry needling: A prospective survey of chartered physiotherapists. *Journal of Manual & Manipulative Therapy*, 22(3), 134–140. <https://doi.org/10.1179/2042618613Y.0000000044>
- Brett, J., Brimhall, J., Healey, D., Pfeifer, J., & Prenguber, M. (2013). Competencies for public health and interprofessional education in accreditation standards of complementary and alternative medicine disciplines. *Explore-the Journal of Science and Healing*, 9(5), 314–320. <https://doi.org/10.1016/j.explore.2013.06.001>
- Cao, B. B. Q. (2015). Current status and future prospects of acupuncture and traditional Chinese medicine in Canada. *Chinese Journal of Integrative Medicine*, 21(3), 166–172. <https://doi.org/10.1007/s11655-014-1962-8>
- Carè, J., Steel, A., & Wardle, J. (2021). Stakeholder attitudes to the regulation of traditional and complementary medicine professions: A systematic review. *Human Resources for Health*, 19(1), 1–36. <https://doi.org/10.1186/s12960-021-00579-y>
- Carol Wang, Wang, C. C., Jing-Yu Tan, Tan, J.-Y., Williams, C. L., Anne M. Williams, & Williams, A. M. (2019). Safety and side effects of acupuncture therapy

in Australia: A systematic review. *European Journal of Integrative Medicine*, 27, 81–89. <https://doi.org/10.1016/j.eujim.2019.03.004>

Carr, D. J. (2015). The Safety of Obstetric Acupuncture: Forbidden Points Revisited. *Acupuncture in Medicine*, 33(5), 413–419. <https://doi.org/10.1136/acupmed-2015-010936>

Cloatre, E., & Ramas, F. S. (2019). The regulation of acupuncture in France and the U.K.: Shifts and fragmentation in contrasting healthcare systems. *Medical Law International*, 19(4), 235–257. <https://doi.org/10.1177/0968533220903373>

Cohen, M., Penman, S., Pirotta, M., & Da Costa, C. (2005). The integration of complementary therapies in Australian general practice: Results of a national survey. *Journal of Alternative and Complementary Medicine*, 11(6), 995–1004. <https://doi.org/10.1089/acm.2005.11.995>

Cummings, M., & Reid, F. (2004). Bmas Policy Statements in Some Controversial Areas of Acupuncture Practice. *Acupuncture in Medicine*, 22(3), 134–136. <https://doi.org/10.1136/aim.22.3.134>

Da-Eun Yoon, Lee, I.-S., & Chae, Y. (2022). Comparison of the acupuncture manipulation properties of traditional East Asian medicine and Western medical acupuncture. *Integrative Medicine Research*, 11(4), 100893–100893. <https://doi.org/10.1016/j.imr.2022.100893>

Eccles, M. P., Grimshaw, J. M., Shekelle, P. G., Schünemann, H. J., Woolf, S. H., Steven H. Woolf, & Woolf, S. H. (2012). Developing clinical practice guidelines: Target audiences, identifying topics for guidelines, guideline group composition and functioning and conflicts of interest. *Implementation Science*, 7(1), 60–60. <https://doi.org/10.1186/1748-5908-7-60>

Ellen Crumley, & Crumley, E. T. (2012). Performing and Experiencing Competing Categories: A Study of Medical Acupuncture. <https://doi.org/10.7939/r3wq4p>

Givati, A., Givati, A., & Berlinsky, S. (2021). The “disenchantment” of traditional acupuncturists in higher education. *Health*, 1363459321990725–1363459321990725. <https://doi.org/10.1177/1363459321990725>

Gray, A., Steel, A., & Adams, J. (2019). A critical integrative review of complementary medicine education research: Key issues and empirical gaps. *BMC Complementary and Alternative Medicine*, 19(1), 1–20. <https://doi.org/10.1186/s12906-019-2466-z>

Hall, K., & Giles-Corti, B. (2000). Complementary therapies and the general practitioner. A survey of Perth G.P.s. *Australian Family Physician*, 29(6), 602–606.

Hampton, D. A., Kaneko, R. T., Simeon, E. C., Moren, A. M., Rowell, S. E., & Watters, J. M. (2014). Acupuncture-Related Pneumothorax. *Medical Acupuncture*, 26(4), 241–245. <https://doi.org/10.1089/acu.2013.1022>

Heather, B., & Ijaz, N. (2015). Overlapping marginalities: Statutory regulation of traditional acupuncturists in North America and the English-language controversy. *Integrative Medicine Research*, 4(1), 119–120. <https://doi.org/10.1016/j.imr.2015.04.217>

Hitomi Asano, Derek Plonka, & Jacqueline Weeger. (2022). Effectiveness of Acupuncture for Nonspecific Chronic Low Back Pain: A Systematic Review and Meta-Analysis. *Medical Acupuncture*, 34(2), 96–106. <https://doi.org/10.1089/acu.2021.0057>

HobbsRichard F., & Hobbs, R. F. (2019). Basic Science and the Future of Medical Acupuncture. *Medical Acupuncture*, 31(3), 136–138. <https://doi.org/10.1089/acu.2019.29115.rfh>

Ian Appleyard, & Appleyard, I. (2018). Use of acupuncture in the management of pain. *Nursing Standard*, 33(9), 24–29. <https://doi.org/10.7748/ns.2018.e11303>

Ijaz, N. (2020). Paradigm-Specific Risk Conceptions, Patient Safety, and the Regulation of Traditional and Complementary Medicine Practitioners: The Case of Homeopathy in Ontario, Canada. *Frontiers in Sociology*, 4, 89–89. <https://doi.org/10.3389/fsoc.2019.00089>

Ijaz, N., & Boon, H. (2018). Safety as ‘Boundary Object’: The Case of Acupuncture and Chinese Medicine Regulation in Ontario, Canada. 193–213. [https://doi.org/10.1007/978-3-319-73939-7\\_8](https://doi.org/10.1007/978-3-319-73939-7_8)

Ijaz, N., & Boon, H. (2019). Evaluating the international standards gap for the use of acupuncture needles by physiotherapists and chiropractors: A policy analysis. *PLOS ONE*, 14(12). <https://doi.org/10.1371/journal.pone.0226601>

Ijaz, N., Boon, H., Muzzin, L., & Welsh, S. (2016). State risk discourse and the regulatory preservation of traditional medicine knowledge: The case of acupuncture in Ontario, Canada. *Social Science & Medicine*, 170, 97–105. <https://doi.org/10.1016/j.socscimed.2016.08.037>

Ijaz, N., Zhang, Q., Welsh, S., & Boon, H. (2022). Safety, Effectiveness, and Professional Judgment: A Survey of Training-Related Perspectives Among

Physiotherapists Who Practise Acupuncture in Ontario. *Physiotherapy Canada*, 74(3), 306–315. <https://doi.org/10.3138/ptc-2020-0116>

Jabbari, A., Ali Jabbari, Tabasi, S., & Masrou-Roudsari, J. (2019). Western medical acupuncture is an alternative medicine or a conventional classic medical manipulation. *Caspian Journal of Internal Medicine*, 10(2), 239–240. <https://doi.org/10.22088/cjim.10.2.239>

Jang, S., Ko, Y., Sasaki, Y., Park, S., Jo, J., Kang, N.-H., Yoo, E.-S., Park, N.-C., Cho, S. H., Jang, H., Jang, B.-H., Hwang, D.-S., & Ko, S.-G. (2020). Acupuncture as an adjuvant therapy for management of treatment-related symptoms in breast cancer patients: Systematic review and meta-analysis (PRISMA-compliant). *Medicine*, 99(50), e21820. <https://doi.org/10.1097/MD.00000000000021820>

Janz, S., & Adams, J. (2011). Acupuncture by another name: Dry needling in Australia. *Australian Journal of Acupuncture and Chinese Medicine*, 6(2), 3–11.

Karim, F., Dilley, J., & Cheung, E. (2019). A review of acupuncture in obstetrics and gynaecology. *The Obstetrician & Gynaecologist*, 21(3), 209–214. <https://doi.org/10.1111/tog.12574>

Karin L. Schaufele. (2023). Examining the Current State of Acupuncture Research and Education. 29(5), 215–231. <https://doi.org/10.1089/ict.2023.29098.kls>

Kate Roberts, Roberts, K., Debra Betts, Betts, D., Tony Dowell, Dowell, T., Jing-Bao Nie, & Nie, J.-B. (2020). Why are we hiding? A qualitative exploration of New Zealand acupuncturists views on interprofessional care. *Complementary Therapies in Medicine*, 52, 102419–102419. <https://doi.org/10.1016/j.ctim.2020.102419>

Kate Templeman, Templeman, K., Anske Robinson, & Robinson, A. (2011). Integrative medicine models in contemporary primary health care. *Complementary Therapies in Medicine*, 19(2), 84–92. <https://doi.org/10.1016/j.ctim.2011.02.003>

Kathleen Leslie, Ivy Lynn Bourgeault, Anne-Louise Carlton, M. Balasubramanian, Raha Mirshahi, Stephanie Short, Jenny Carè, Giorgio Cometto, & Vivian Lin. (2022). Design, operation and strengthening of health practitioner regulation systems: A rapid integrative review. *Research Square - Research Square*. <https://doi.org/10.21203/rs.3.rs-2370701/v1>

Kathleen Leslie, Ivy Lynn Bourgeault, Anne-Louise Carlton, M. Balasubramanian, Raha Mirshahi, Stephanie Short, Jenny Carè, Giorgio Cometto, & Vivian Lin. (2023). Design, delivery and effectiveness of health practitioner regulation systems: An integrative review. 21(1). <https://doi.org/10.1186/s12960-023-00848-y>

Kohut, S. H., Larmer, P. J., & Johnson, G. (2011). Western acupuncture education for New Zealand physiotherapists. *Physical Therapy Reviews*, 16(2), 106–112. <https://doi.org/10.1179/1743288x11y.0000000009>

Mike Cummings, & Cummings, M. (2013). 13 – Dry needling from a Western medical acupuncture perspective. 173–207. <https://doi.org/10.1016/b978-0-7020-4601-8.00013-x>

Mike Cummings, Cummings, M., M. Cummings, R Ross-Marrs, Ross-Marrs, R., Robert D. Gerwin, Gerwin, R., & Gerwin, R. D. (2014). Pneumothorax complication of deep dry needling demonstration. *Acupuncture in Medicine*, 32(6), 517–519. <https://doi.org/10.1136/acupmed-2014-010659>

Nadine Ijaz, Ijaz, N., Nadine Ijaz, Sandy Welsh, Welsh, S., Heather Boon, & Boon, H. (2021). A mixed-methods survey of physiotherapists who practice acupuncture and dry needling in Ontario, Canada: Practice characteristics, motivations, and professional outcomes. 21(1). <https://doi.org/10.1186/s12906-021-03440-w>

Ng, J. Y. (2020). The regulation of complementary and alternative medicine professions in Ontario, Canada. *Integrative Medicine Research*, 9(1), 12–16. <https://doi.org/10.1016/j.imr.2020.01.001>

Niemtzow, R. C. (2013). Medical Acupuncture: Past, Present, and Future. *Medical Acupuncture*, 25(6), 371–372. <https://doi.org/10.1089/acu..2561>

Niemtzow, R. C. (2021). Medical Acupuncture: Building Resilience for the Future. *Medical Acupuncture*, 33(2), 119–120. <https://doi.org/10.1089/acu.2021.29171.rcn>

Petra Bäumlér, Bäumlér, P., Wenyue Zhang, Wenyue Zhang, Theresa Stübinger, Theresa Stübinger, Dominik Irnich, & Irnich, D. (2021). Acupuncture-related adverse events: Systematic review and meta-analyses of prospective clinical studies. *BMJ Open*, 11(9). <https://doi.org/10.1136/bmjopen-2020-045961>

Peuker, E., White, A., & Ernst, E. (2000). Acupuncturists need to know human anatomy. *Focus on Alternative and Complementary Therapies*, 5(2), 146. Gale Academic OneFile. <https://research.ebsco.com/linkprocessor/plink?id=48f5ecbe-ed6d-3bad-8a13-8d9faeab8a45>

Pradeep M.K. Nair, Mamta Jagwani, Gita Sharma, Deepika Singh, Hemanshu Sharma, & Gulab Rai Tewani. (2022). Medical Education, Practice, and Regulation of Acupuncture in India. *Medical Acupuncture*. <https://doi.org/10.1089/acu.2022.0008>

- Price, J., & White, A. (2004). The use of acupuncture and attitudes to regulation among doctors in the U.K.--a survey. *Acupuncture in Medicine*, 22(2), 72–74. <https://doi.org/10.1136/aim.22.2.72>
- Richard C. Niemtzow. (2021). Medical Acupuncture: A Brief Overview. *Medical Acupuncture*, 33(6), 373–374. <https://doi.org/10.1089/acu.2021.29191.rcn>
- Richard C. Niemtzow. (2022). Medical Acupuncture: Ready for the Unexpected. *Medical Acupuncture*, 34(3), 149–150. <https://doi.org/10.1089/acu.2022.29205.rcn>
- Soliman, N. (2002). Medical acupuncture in the twenty-first century. *Maryland Medicine*, 3(1), 19–22.
- Tang, C., Duan, Y., Zhang, Y., Zhang, Y., Zhang, Y., Chen, Z., Tang, X., Zeng, J., Zeng, J., Riley, D., Riley, D., Myeong Soo Lee, Myeong Soo Lee, Lee, M. S., Kim, Y.-S., Zhao, H., Marrone, G., Zhu, X., Ge, S., ... Xu, N. (2021). RIGHT for acupuncture: An extension of the RIGHT statement for clinical practice guidelines on acupuncture. *Journal of Clinical Epidemiology*. <https://doi.org/10.1016/j.jclinepi.2021.05.021>
- Wheway, J., Agbabiaka, T. B., & Ernst, E. (2012). Patient safety incidents from acupuncture treatments: A review of reports to the National Patient Safety Agency. *International Journal of Risk & Safety in Medicine*, 24(3), 163–169. <https://doi.org/10.3233/JRS-2012-0569>
- White, A. (2009). Western medical acupuncture: A definition. *Acupuncture in Medicine*, 27(1), 33–35. <https://doi.org/10.1136/aim.2008.000372>
- White, A., Hayhoe, S., & Ernst, E. (1997). Survey of adverse events following acupuncture. *Acupuncture in Medicine*, 15(2), 67. <https://doi.org/10.1136/aim.15.2.67>
- White, A., Hayhoe, S., Hart, A., & Ernst, E. (2001). Adverse Events Following Acupuncture: Prospective Survey Of 32 000 Consultations With Doctors And Physiotherapists. *BMJ: British Medical Journal*, 323(7311), 485–486. <https://www.jstor.org/stable/25226883>
- White, A., White, A., Cummings, M., & Filshie, J. (2008). *An Introduction to Western Medical Acupuncture*.
- Witt, C. M., Pach, D., Brinkhaus, B., Wruck, K., Tag, B., Mank, S., & Willich, S. N. (2009). Safety of Acupuncture: Results of a Prospective Observational Study with 229,230 Patients and Introduction of a Medical Information and Consent Form.

Complementary Medicine Research, 16(2), 91–97.

<https://doi.org/10.1159/000209315>

World Health Organization. (1999). WHO Guidelines on basic training and safety in acupuncture. <https://iris.who.int/handle/10665/66007>.

<https://iris.who.int/handle/10665/66007>

World Health Organization. (2020). WHO benchmarks for the training of acupuncture. <https://iris.who.int/handle/10665/66007>.

<https://iris.who.int/handle/10665/341723>

Xu, S., Wang, L., Cooper, E., Zhang, M., Manheimer, E., Berman, B., Shen, X., & Lao, L. (2013). Adverse Events of Acupuncture: A Systematic Review of Case Reports. *Evidence - Based Complementary and Alternative Medicine*, 2013.

<https://doi.org/10.1155/2013/581203>

Yu-Qing Zhang, Liming Lu, Nenggui Xu, Xiaorong Tang, Xiaoshuang Shi, Alonso Carrasco-Labra, Holger Schünemann, Yaolong Chen, Jun Xia, Guang Chen, Jianping Liu, Baoyan Liu, Jiyao Wang, Amir Qaseem, Xianghong Jing, Gordon Guyatt, & Hong Zhao. (n.d.). Increasing the usefulness of acupuncture guideline recommendations. *BMJ*. <https://doi.org/10.1136/bmj-2022-070533>

Zhang, N. M., Vesty, G., & Zheng, Z. (2021). Healthcare Professionals' Attitudes to Integration of Acupuncture in Western Medicine: A Mixed-Method Systematic Review. *Pain Management Nursing*. <https://doi.org/10.1016/j.pmn.2021.03.010>

Zheng, Z. (2014). Acupuncture in Australia: Regulation, education, practice, and research. *Integrative Medicine Research*, 3(3), 103–110.

<https://doi.org/10.1016/j.imr.2014.06.002>