GPs and the Unexplored World of Osteopathy:
A descriptive study

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Declaration

Name of candidate: Kushla Grace Currie

This Research Project entitled “GPs and the Unexplored World of Osteopathy: A descriptive study” is submitted in partial fulfilment for the requirements for the Unitec degree of Master of Osteopathy.

CANDIDATE’S DECLARATION

I confirm that:

- This Research Project represents my own work;
- The contribution of supervisors and others to this work was consistent with the Unitec Regulations and Policies.
- Research for this work has been conducted in accordance with the Unitec Research Ethics Committee Policy and Procedures, and has fulfilled any requirements set for this project by the Unitec Research Ethics Committee.

Research Ethics Committee Approval Number: 2015-1059

Candidate Signature: _______________________ Date: _____________________

Student number: 1397319
Acknowledgements

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My osteopathic peers that have laughed hysterically with me at the state of it, you know who you are and you know what I mean – could not have done it without you all. I am very happy to know I have brilliant peers out there.

Music my old friend, without your presence this would not have been possible. I am also very grateful for the astute minds of Merissa Foryani and Claire McClintock when I needed them.

Special thanks to my parents. It has taken a while to get here and I am very appreciative of your love and support.

Finally, Colette, you are the best.
Abstract

Background: The relationship between osteopaths and General Practitioners (GPs) is of key importance to the development of osteopathy as a profession in New Zealand (NZ). Gaining an understanding of what lies behind the GPs’ perceptions and attitudes toward osteopathy is essential in terms of building a better working relationship. Investigating the influence of this attitude on current referral practice will provide further insight.

Objective: This descriptive study explores GPs’ perceptions and attitudes toward osteopathy and their current referral practice.

Method: Snowball sampling recruited six GPs from Auckland. Data were collected using semi-structured interviews and analysed using descriptive method.

Results: One major theme emerged: The unexplored world of osteopathy. Participants knew that osteopaths were Accident Compensation Corporation (ACC) approved treatment providers but knowledge beyond that was varied and limited. Perception and attitude toward osteopathy stemmed from education, patient reporting or personal experience and was connected to the bigger picture of complementary and alternative medicine (CAM). A minor theme related to referral behaviour also surfaced.

Conclusion: For osteopaths and GPs to have better working relationships, osteopathic education, treatment use and treatment details need to be transparent. GPs require an understanding of how osteopathic practice could fit into the current biomedical structure. To trust osteopathy, they need confirmation that osteopathy is underpinned by sound scientific evidence. This may enhance the perception and attitude toward osteopathy and positively affect referral practice.

Keywords: General Practitioners; Osteopathy; Qualitative Research
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Preface

This research study explored the perceptions and attitudes of six GPs toward osteopathy. The thesis is presented in three main parts. Part One comprises two chapters. Chapter one provides the background to the study and a literature review. This explains terminology and provides a description of osteopathy in the context of the health system both internationally and nationally. Chapter two describes the methodology and research methods.

Part Two is presented as a manuscript with appendices in the stipulated format for publication in the International Journal of Osteopathic Medicine. Part Three comprises the appendices which contain documentation of ethics approval, information and consent forms, journal publication guidelines and examples from the data analysis process.
Part One Chapter One: Introducing the Research

Introduction

The perceptions and attitudes of GPs toward osteopathy is of prime importance to the development and acceptance of the osteopathic profession in New Zealand. Osteopathy in the past twenty years has grown from an informal part-time training course to an internationally recognised Masters qualification. The five year programme gives osteopaths a good grounding in anatomy and physiology and other clinical components that mirror biomedical education.

Since 2003 osteopaths have been regulated by the Health Practitioners Competence Assurance Act (HPCA), Ministry of Health (2015a), the same act that regulates GPs. Osteopaths are also Accident Compensation Corporation (ACC)\(^1\) approved practitioners. Despite a thorough education that includes the language of the biomedical world, osteopaths are viewed as alternative and part of CAM.

Patients who seek manual therapy do so either by self-referral or on the referral of a general practitioner. ACC statistics show a strong prevalence for physiotherapy when musculoskeletal referral is needed despite osteopathy being a viable option (Scarrott, 2008). It seems there may be something underlying GPs’ perceptions and attitudes toward osteopathy that affects referral numbers.

This research aimed to explore the current GP and osteopathic relationship. By gaining a greater understanding of the relationship, paths of action could be identified that may lead to positive change.

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\(^1\) [http://www.acc.co.nz/](http://www.acc.co.nz/)
Background and Literature Review

The following is a background and literature review that enables the current relationship between General Practitioners (GPs) and osteopaths to be explored. This will focus on GPs’ attitudes and perception toward osteopathy. To investigate the topic and gain an understanding of its complexity, it is necessary to define the main terms and discuss their place in an international and New Zealand (NZ) context. This will constitute the background section. The literature review will evaluate the research pertaining to GPs’ perceptions and attitudes toward complementary and alternative medicine (CAM) and osteopathy in an Australasian context. GP referral patterns will also be reviewed. The review identifies a place for qualitative inquiry in this area to further inform the possible future working relationship between osteopaths and GPs.

Literature Search Strategy. Literature included in the review was identified using Science Direct, PubMed, Ebsco, Cochrane and Google scholar databases and the Google Search engine. Multiple searches were made using combinations of the following keyword searches: osteopathy, manual therapy, physical therapy, New Zealand, Australasia, Accident Compensation Corporation, general practitioners, medical doctors, complementary and alternative medicine, perception and attitude. Limited studies have taken place that address the relationship between osteopathy and GPs which led to an exploration of the attitude and perception GPs have toward CAM and how this may influence referral patterns.

Background

Osteopathy defined. Osteopathy is a form of manual medicine established in 1874 by Andrew Taylor Still, a United States (US) physician and surgeon. Still acknowledged the relationship between structure and function and the necessity of advanced anatomical and physiological knowledge to direct effective treatment (The Osteopathic Clinic, n.d.). Osteopathic principles remain unchanged and are as follows: firstly, the body is a unit; secondly, the body possesses self-regulatory mechanisms; thirdly, that structure and function are reciprocally inter-related; and lastly, that osteopathic practice is based on an understanding of the prior three principles (Still, 1902). Still created manual techniques aimed at optimising the body’s ability to find the health within, aiming to provide an alternative to what he perceived as the toxic and ineffective
pharmaceutical standard of the time (Rosen, 2008). This essentially holistic view was considered radical for that period but forward thinking in terms of health care today.

Osteopathy is practised differently depending on country of training and individual style leaving it in a difficult position for categorisation and understanding. While the majority of practitioners are musculoskeletal experts who practice structural osteopathy, some are osteopaths in the cranial field and others specialise in visceral osteopathy. Many osteopaths practise a combination of techniques. A description of osteopathic styles follows this section.

Osteopaths in the US undergo different training than osteopaths in other countries. Known as osteopathic physicians they are medical doctors trained in the full spectrum of modern medicine from surgery to prescribing drugs. Additional education in the musculoskeletal system and osteopathic manipulative treatment differentiates them from physicians educated at non osteopathic medical institutions (American Association of Colleges of Osteopathic Medicine, 2016). Generally, osteopaths in the US are not considered CAM practitioners. It is interesting to note that the osteopathic element of their education would be considered CAM in other countries.

Osteopaths in the United Kingdom (UK) are a registered profession but are not trained medical doctors. As primary health care practitioners, osteopathic treatment is complementary to other medical practices. The title ‘osteopath’ is protected and anybody calling themselves an osteopath must be registered with the General Osteopathic Council of the UK which sets the standards of competency and safety (General Osteopathic Council, 2016).

The Royal College of Physicians Subcommittee on Complementary and Alternative Medicine published a report in 2003 aimed at describing the current status in evidence based research for CAM in the UK. It discusses osteopathy alongside chiropractic under the subtitle of ‘manipulative therapies’ and states that it is an effective treatment for lower back pain. It does not differentiate osteopathy from chiropractic and does not address other elements of osteopathic treatment. The closing statement places osteopathy on a higher tier than other CAM therapies by stating: “Increasingly, though, doctors consider such practitioners as colleagues with specialist knowledge and skills in treating the musculoskeletal system. Four-year degree level training programmes, high standard professional regulation, peer-reviewed
clinical research and conventional medicine’s own poor track record of success with musculoskeletal dysfunction have all contributed to this convergence” (Lewith et al., 2003, p. 239). The evidence proving osteopathy is effective for lower back pain means it is a treatment option under the National Health Service (NHS) (National Health Service UK, 2015). There are few osteopaths currently employed directly by the NHS but applications can be made to be a provider for musculoskeletal services (The Institute of Osteopathy, n.d.).

Australian trained osteopaths hold the same position as osteopaths trained in the UK and NZ. Regulated by the Osteopathy Board of Australia they are registered primary health care practitioners bound by a regulated scope of practice (Osteopathy Board of Australia, 2016a). The Australian Medical Association (AMA) published a position statement on complementary medicine in 2012, which placed osteopathy in the complementary therapy category. The AMA recognised that “evidence-based aspects of complementary medicine can be part of patient care by a medical practitioner”, however it does not provide information on which therapies this specifically refers to (Australian Medical Association, 2012).

As of March 31st 2016 there are 432 osteopaths registered with an annual practicing certificate and 683 registered osteopaths in NZ (Osteopathic Council New Zealand, 2016). Education in New Zealand is a five-year tertiary programme or equivalent if educated overseas. Osteopaths are trained structurally and do not specialise during education. They may specialise in cranial or visceral techniques once in practice. While referral is not necessary GPs and other health care professionals do refer privately and via the Accident Compensation Corporation (ACC). This Crown entity provides financial compensation via subsidised treatments for personal injury (Accident Compensation Corporation, 2015c).

An osteopathic treatment in New Zealand varies in style and typically lasts from 20 to 60 minutes. Prices are set by the individual practitioner but are generally around $60 to $90 (Osteopaths New Zealand, n.d.-b). After a comprehensive assessment a variety of techniques such as manipulation and mobilisation of joints, soft tissue and muscle energy techniques may be utilised to correct abnormal physical conditions (Osteopathic Council New Zealand, n.d.).

Osteopathy in New Zealand has stayed relatively true to the osteopathic philosophy established by Still. Primarily associated with musculoskeletal medicine, osteopathy
“facilitates healing by focusing on how the skeleton, joints, muscles, nerves, circulation, connective tissue and internal organs function as a holistic unit” (Osteopaths New Zealand, n.d.-a).

**Osteopathy in the Cranial Field.** Dr. William G. Sutherland (1873-1954) was a medical doctor who trained at the American School of Osteopathy and is considered the father of cranial osteopathy or osteopathy in the cranial field (Osteohome, 2013). Focused on the concept of “self-healing” he spent his life investigating the cranial rhythm and trying to validate his findings. The cranial rhythm or primary respiratory mechanism is considered the breathing of every cell and all tissues. This can be affected by gentle manipulative techniques to the cranium and rest of the body. The aim is to find the health within and allow the body’s self-healing homeostatic mechanisms to function to their optimum (Sutherland Cranial Teaching Foundation of Australia and New Zealand, 2016).

Scientific research is extremely limited in this field. Sutherland received positive attention from the medical institution during his lifetime, nevertheless cranial osteopathy is considered as having little value by many medical professionals and structural osteopaths. Consequently, it is not taught as part of the osteopathic curriculum in New Zealand and is only available as training to the graduate. Many osteopaths in New Zealand use cranial methods of treatment either in conjunction with structural or as a therapy on its own. This further complicates the perception of osteopathy. A treatment using cranial methods is very different from standard structural treatment and one is often preferred over the other.

**Visceral Osteopathy.** The field of visceral osteopathy is a relatively new specialty attributed to Jean-Pierre Barral, a French osteopath and physical therapist. A graduate of the European School of Osteopathy, Barral created techniques aimed at restoring optimal organ function via addressing strains in the connective tissue of the viscera. Coining the term ‘visceral manipulation’ for his therapy the central concept is that the interrelationship of structure and function between internal organs is as strong as the musculoskeletal system. Correspondingly, the organs can be beneficially manipulated to treat a variety of health issues (The Barral Institute, 2016). Barral continues to develop his therapy and many osteopaths in New Zealand incorporate visceral techniques into their treatment.
The Biomedical model of health. Mainstream medicine or conventional practice refers to the biomedical model that draws upon biological and chemical explanations of ill health as the basis for treatment (Yuill, Crinson, & Duncan, 2010). White (2006) claims the biomedical model developed from hospitals in France in the eighteenth century as a means for medical scientists to study disease. It emphasised physical identification of lesions in the body and subsequent treatment of disease.

Western ideas about health have been dominated by the biomedical model for the past two centuries. It has three key principles: “disease is a breakdown in the normal functioning of the body; the mind and body can be treated separately; trained medical specialists are considered to be the only experts” (Giddens & Sutton, 2012).

With the development of psychological and sociological thought in the twentieth century a need to expand on the model was identified. Separation of mind and body was considered reductionist and the absence of consideration to the psychological, behavioural and social dimensions outdated. Psychiatrist George L. Engel proposed that the biomedical model had reached the status of dogma, in that discrepant data was forced to fit the model rather than evolution of the model itself. He proposed that the biomedical model had no place for consideration of behaviour being linked to illness. Traditionally a significant shift in normal behaviour was a viable way for any member of a community to note that a person was not well. He proposed a new inclusive model, the biopsychosocial model underlying current medical training (G. L. Engel, 1977).

Biopsychosocial model and General Practice in NZ. Engel stated “We are now faced with the necessity and the challenge to broaden the approach to disease to include the psychosocial without sacrificing the enormous advantages of the biomedical approach” (1977, p. 131).

The biopsychosocial model encompasses social and psychological components and the influence they may have on biological functioning and in turn health or illness. Such acknowledgement of individuality requires consideration of lifestyle when medical professionals meet patients with illness, thus broadening the diagnosis and assistance that may be offered (McInerney, 2015).
The World Health Organisation (WHO) and the Health Impact Assessment (HIA) programme was created as a means of assessing the potential health effects of a policy or project that may impact on health and well-being. In the context of healthcare the programme utilises quantitative and qualitative data to devise strategies that aim to improve the relationship between health professionals and those receiving health services (World Health Organization, 2016). It could be said that its use in the health context is an attempt to implement the biopsychosocial model. In NZ, the Ministry of Health implements several HIA programmes, yet nothing directly in relation to GPs and those in their care.

Consideration of the biopsychosocial model in terms of GP education differs depending on when these practitioners were educated. Consequently, attitudes are formed depending on individual circumstance and the differing opinions that come through educators when imparting knowledge. Medical education has evolved over the decades with major changes in recent years. A need to improve GP communication skills was no doubt connected to a significant number of complaints to the Health and Disability Commissioner (HDC) where poor communication led to a failure in care (Health & Disability Commissioner, 2016).

A curriculum revision took place in 2014 based on over two decades of reports identifying modifications needed to improve educational outcomes. Development of the New Zealand Curriculum Framework for Pre-vocational Medical Training (NZCF) intended to address areas highlighted for revision such as communication (Medical Protection, 2014). These changes are reflected in definitions and statements throughout the current curriculum. The holistic approach to healthcare is the essence of GP philosophy though the term ‘holistic’ is not specifically used. General Practice is defined as academic, scientific, evidence based, family and community oriented and anticipatory as well as responsive (The Royal New Zealand College of General Practitioners, 2014). Patients are complex beings that “do not present to general practice in isolation. They bring with them a variety of symptoms, questions and concerns, interwoven with a cultural, environmental, socioeconomic, spiritual and family background that makes each consultation unique” (The Royal New Zealand College of General Practitioners, 2014, p. 5).

An ability to uphold this approach to care is particularly pertinent with the current stress placed on GPs due to lower numbers than previous years. There are roughly 75 full-time GPs per 100,000 people compared with 84 in 1999 and 41% are aged over 55 years (McMillan,
2016a). GPs are reporting concern that this places enormous pressure on their work marked by high consultation numbers and consequent burn out. The ageing workforce also highlights concerns for the future. A public campaign called “GP – Heart of the community” was launched by the Royal NZ College of Practitioners in December 2016. The aim is to raise public awareness of the need for extra government funding for training and consumer affordability (McMillan, 2016b).

Given that GPs are feeling pressured and under resourced it is understandable that despite efforts to improve their practice this may not be possible. It perhaps suggests that now is the time for GPs to work more closely with applicable CAM practitioners and ease the demand placed on GPs. This is only possible if CAM practitioners are prepared to work with GPs. A commonality may exist between osteopathic and GP education but it is the divide rather than the connection between biomedicine and CAM that is usually emphasised. If this is addressed in education at medical school, or in the public realm, integration may be possible.

**CAM defined.** The Cochrane Library (Cochrane Library, 2016) provides a working definition of CAM based on users’ descriptions. It is defined as “preventing or treating illness, promoting health and well-being” and “complementing mainstream medicine by 1) contributing to a common whole, 2) satisfying a demand not met by conventional practices and 3) diversifying the conceptual framework of medicine” (Wieland, Manheimer, & Berman, 2011).

Understandably given this definition CAM is open to broad interpretation and the modalities that fall within its boundaries range from those with an evidenced based foundation to the opposite end of the spectrum. Likewise, a proportion of CAM modalities are subject only to the rules of the HDC on the provision of health care that essentially states every health care consumer must be treated with respect (Health & Disability Commissioner, 2009) The biomedical model and CAM are often presented as opposing positions where general practitioners and medical doctors sit in the biomedical camp and all CAM practitioners in the other. A proportion of GPs are trained in both areas. The most recent NZ based random postal survey by Poynton, Dowell, Dew, and Egan (2006) found that 61 of 300 GPs practiced CAM. This proportion may have increased but there are no current statistics relating to the issue.
CAM in New Zealand. In New Zealand a large number of complementary and alternative therapies are practised. In order to give a picture of the variety of treatments available, the following examples are provided: action potential stimulation therapy, acupuncture, aura-soma colour therapy, chiropractic, colon hydrotherapy, craniosacral therapy, intuitive healing, osteopathy, reiki, sports therapy and homeopathy (Ministry of Health, 2001).

Complementary and alternative medicine’s relationship with mainstream medicine has always been uneasy. The first attempted legislation, the Medical Practitioners Bill of 1860, failed to be passed by Parliament due to a technicality and strong opposition from supporters of homeopathy who did not want homeopaths to become excluded. In 1867 the first bill was passed that regulated the medical profession but left CAM therapies unregulated (Sainsbury, 2015).

CAM practitioners at the beginning of the twentieth century were recorded as quack “specialists” and numbered 125 in the 1906 census (Statistics New Zealand, 2013). The first attempt at legislating this group came in the form of the Quackery Prevention Act of 1908 which made it an offence to sell a service or medicine based on claims that were false (New Zealand Legal Information Institute, 2016). It did not provide a definition of quacks but did suggest an inquiry with the aim of developing regulations. Despite support from those who practised CAM within the medical profession, this Act was passed. Around the same time the Medical Act of 1908 identified and recognised schools of anatomy and dictated rules pertaining to scope of practice. A register of medical doctors was updated annually and available to the public (Sainsbury, 2015). This act and updated versions that followed created a divide that still exists within the health profession today.

In 2001 the Ministry of Health initiated a three-year study into CAM therapies. The Ministerial Advisory Committee on Complementary and Alternative Health (MACCAH) was established to provide independent advice to the Minister of Health on CAM. With an estimated 10 000 CAM practitioners, the need to review guidelines was clear. Drawing on international standards for CAM, submissions from within New Zealand and research, the committee’s aim was to fully explore CAM in terms of the current situation and suggest legislative improvements.
In the final period of research MACCAH obtained provisional results from the 2002/03 Health Survey indicating one in four adults had visited a CAM practitioner over the twelve-month period. Other results were that there was a significant variation in CAM training and very little or no information provided relating to CAM in biomedical education. Research pertaining to safety and efficacy of CAM did not exist. Chiropractors were the only regulated CAM practitioners, legislated by the Chiropractors Act 1982, other than medical practitioners who practiced CAM in conjunction with biomedical practice. Legislation applying to CAM practitioners was piecemeal and overall there was a lack of cohesiveness and clarity meaning modifications were needed (Ministry of Health, 2015a).

The report submitted to the Minister of Health clearly states “It is important to realise that CAM is an ‘umbrella’ term used to describe a range of health systems, modalities and practices that may have little in common other than that they are practised alongside or as an alternative to mainstream medicine. There can be great variation in the nature and degree of training required to become competent in the practice of individual CAM forms” (Ministerial Advisory Committee on Complementary and Alternative Health, 2004). MACCAH acknowledged that without strong regulation the process of biomedicine and CAM integration would not be possible. A cooperative attitude from all parties involved is clearly needed to engage in the complex process of change.

In 2001 Allied Health Aotearoa New Zealand was formed as a forum for professional associations. The osteopathic association of the time was a contributor and Osteopaths New Zealand is a member today. One of its first acts was a submission on the proposed Health Practitioners’ Competence Assurance Act (HPCA) 2003 (Allied Health Aotearoa New Zealand, n.d.).

The HPCA was created based on the Medical Practitioners Act 1995 to protect the public by ensuring that all health practitioners under this act are regulated and deemed fully competent by their respective governing authority. Providing protection of titles and practice it specifically regulates CAM professions regarded as practicing a modality with a greater inherent risk. Eleven occupational statutes were repealed with the introduction of this law (Ministerial Advisory Committee on Complementary and Alternative Health, 2004). Professions now governed by this new act are shown in the table below:
Table 1.

*Professions Regulated Under the HPCA Act 2003*

<table>
<thead>
<tr>
<th>Professions</th>
<th>Responsible Authority</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chiropractic</td>
<td>Chiropractic Board</td>
</tr>
<tr>
<td>Dentistry, dental hygiene, clinical dental technology, dental technology and dental therapy</td>
<td>Dental Council</td>
</tr>
<tr>
<td>Dietetics</td>
<td>Dietitians Board</td>
</tr>
<tr>
<td>Medical Laboratory Science, Anaesthetic Technology</td>
<td>Medical Sciences Council of New Zealand</td>
</tr>
<tr>
<td>Medical Radiation Technology</td>
<td>Medical Radiation Technologists Board</td>
</tr>
<tr>
<td>Medicine</td>
<td>Medical Council</td>
</tr>
<tr>
<td>Midwifery</td>
<td>Midwifery Council</td>
</tr>
<tr>
<td>Nursing</td>
<td>Nursing Council</td>
</tr>
<tr>
<td>Occupational Therapy</td>
<td>Occupational Therapy Board</td>
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</tbody>
</table>
It is of note that physiotherapy and chiropractic, the two other professions considered musculoskeletal experts are under this Act. The difference between the three professions is often confusing. The New Zealand Qualifications Authority (NZQA) categorises chiropractic as a Bachelor of chiropractic level seven qualification (New Zealand Qualifications Authority, n.d.-a). In comparison osteopathy is categorised as a Masters of Osteopathy level nine qualification (New Zealand Qualifications Authority, n.d.-b). Chiropractors focus on disorders of the musculoskeletal and nervous system and study for five years. Customarily they use the honorary title of Doctor and are required to make it clear to the public that they are chiropractors. The main technique utilised is “spinal manipulation” or “chiropractic adjustment” with the aim of improving general health yet depending on the chiropractor, techniques and approach will vary (New Zealand Chiropractic Board, n.d.).

<table>
<thead>
<tr>
<th>Optometry and optical dispensing</th>
<th>Optometrists and Dispensing Opticians Board</th>
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<tbody>
<tr>
<td>Osteopathy</td>
<td>Osteopathic Council</td>
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<tr>
<td>Pharmacy</td>
<td>Pharmacy Council</td>
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<tr>
<td>Physiotherapy</td>
<td>Physiotherapy Board</td>
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<td>Podiatry</td>
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<td>Psychology</td>
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<td>Psychotherapy</td>
<td>Psychotherapists Board</td>
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</table>

(Ministry of Health, 2015b)
While physiotherapists, also musculoskeletal experts, share similar education and expertise with chiropractors and osteopaths they are not considered CAM therapists. Physiotherapy has a long history in NZ. Initially established as the University of Otago School of Massage in 1913, the school began as a means of giving masseurs legitimacy. To ensure recognition the school was taken over by Otago Hospital and Charitable Aid Board in 1915 (University of Otago, n.d.-b) establishing physiotherapy’s place as an integral part of the NZ health system for years to come. Through the decades physiotherapy education has expanded from two years in the 1930s to three years in the 1950s to the current curriculum that began in 1991. The current four year bachelor programme focuses on the assessment and treatment of physical dysfunction via a Bachelor of Health Science and a year of specialist study (University of Otago, n.d.-a). Physiotherapists work in a variety of settings within the health system and private practice. Areas of specialty include: acupuncture, biomechanics, dizziness and balance, cardiorespiratory physiotherapy, ergonomics, musculoskeletal physiotherapy, neurological rehabilitation, pain, rehabilitation and ultrasound (Auckland University of Technology, 2015).

More than a century of recognition and working alongside medical doctors in the public health system may explain why physiotherapy has a strong status as the main musculoskeletal expert. Osteopaths, chiropractors and physiotherapists may share common ground in terms of aspects of their education but individual styles of practice mean it is difficult to apply a generic definition that is guaranteed to fit each practitioner. This could be said for many CAM modalities.

The Ministry of Health website specifically states that not all health professions are regulated and this does not imply a lack of professionalism, it simply relates to the fact that they present little risk of harm to the public. All health providers in NZ are accountable to the HDC whether regulated or not. Any profession is able to submit an application to engage in the regulatory process should they wish (Ministry of Health, 2015a). This is a decision that requires much debate due to what can be perceived as a loss of autonomy and is one that has ongoing costs. There is no further detailed information on CAM modalities on the website despite one of the main MACCAH recommendations that providing detailed information to the public on CAM would assist with informed decision making.
The Medical Council of New Zealand provides guidance to doctors on all matters relating to CAM. The last statement was made in 2011. Under the heading, “Doctors whose patients use CAM” it states “If a patient expresses an interest in CAM you should indicate the limits of your knowledge and, where appropriate, suggest that further information could be obtained from sources such as the Cochrane Collaboration, BMJ Best Treatments, a CAM practitioner, or a New Zealand-based professional body” (Medical Council of New Zealand, 2011). It further states that “There is an onus on the practitioner to inform the patient not only of the nature of the alternative treatment offered but also the extent to which that is consistent with conventional theories of medicine” (Medical Council of New Zealand, 2011).

These statements clearly intend to assist informed decision making however this would mean that doctors must be extremely well educated on CAM modalities or have a New Zealand based reference of CAM knowledge available to them. The medical curriculum does not address CAM therapies in detail and a single website with current detailed information on CAM therapies in a New Zealand context does not exist. To find CAM information it is necessary to consult individual associations and hope to be provided with adequate information to make an informed decision.

**Accident Compensation Corporation (ACC).** ACC is a Crown organisation that provides no-fault personal injury cover for all New Zealand residents and visitors to New Zealand. Osteopathy was recognised by ACC in 1986 as a viable CAM treatment (Duke, 2005). Cover is comprehensive and offers subsidised payment toward treatment with the aim of providing income assistance that will hasten a return to work or normal activities. An individual may seek an ACC-endorsed practitioner independent of a referral. Current CAM therapies covered are chiropractic, acupuncture and osteopathy (Accident Compensation Corporation, 2015b). Osteopathy is listed as an Allied Health Provider that is covered by ACC under the Accident Compensation Act 2001 (New Zealand Legislation, n.d.). Being endorsed and subsidised by ACC possibly assigns these CAM therapies with a level of credibility for both GPs and members of the public as it implies reliability from an institutional perspective. However, there is no information available to the public on the ACC website should information be sought on the suitability of treatments and no links to reliable databases for further research.
Research

**GPs’ perceptions and attitudes toward CAM.** The therapies that fall under the CAM umbrella term vary depending on individual opinion, meaning studies researching these modalities sometimes include osteopathy and sometimes do not. In New Zealand a 2006 nationwide survey looked at GPs’ attitudes toward the use of CAM (Duke, 2005). Roughly, 60% (N=500) of the randomly selected GPs’ surveys were accurately returned. GPs in active practice according to the Medical Council’s Workforce statistics of the same year numbered 3106, showing the study offers a statistically significant insight into CAM in NZ (Medical Council of New Zealand, 2006). It is of interest that in the list of therapies there is ‘chiropractic manipulation’ and ‘osteopathy’ and that ‘chiropractic manipulation’ is seen as more conventional than osteopathy. The wording itself is indicative of the general state of confusion around CAM therapies as chiropractors ‘adjust’ and osteopaths ‘manipulate’. Sixty seven percent of GPs felt that an overview of CAM was needed in their education even though 20% of GPs practised a CAM therapy. It is of note that the most practised CAM therapy was acupuncture, with 21.7% of GPs having undergone formal training and 8.7% stating self-education in this therapy. GPs rated osteopathy as having slightly less effect than chiropractic, and musculoskeletal conditions were the most common referrals. Acupuncture was the highest rated conventional CAM therapy, which is possibly connected to the fact that this is the CAM therapy most practised by GPs.

A study of both GPs and patients regarding CAM was undertaken by a GP in Whanganui in 2003 (Taylor, 2003). Via questionnaire, opinions were gathered from 25 GPs and 104 patients. Although this is a small sample of GPs they represented 83.3% of GPs practising in Whanganui at the time. It is not clear what proportion of patient numbers the survey represented. Data provide rather contradictory information between GP and patient reporting. This is possibly due to the relatively small number of patients surveyed compared to GP representation. Ninety-two percent of GPs reported referring to a CAM therapist but only 15.3% of patients reported being referred to a CAM practitioner. Without higher patient survey numbers to examine it is not possible to say how accurate a picture this gives of GPs and CAM. GPs believed that most patients communicated openly about CAM use and were aware of the need for transparency in terms of personal safety. Sixty-two percent of patients reported, however, that their GP did not ever ask them about CAM though they did feel they could speak openly with their GP about CAM use. A similar percentage of patients (66.3%)
indicated that more CAM education for GPs would be beneficial. The significance of this study is limited due to the small number of patients surveyed but it does indicate the prevalence of CAM within the GP setting. This study also suggests that there is disparity between what both GPs and patients believe is occurring.

To broaden understanding it is helpful to look at Australia, where perhaps due to the higher population, more studies on CAM and GPs have taken place. A 2005 study in Australia looked at the integration of complementary therapies into general practice (Cohen, Penman, Pirotta, & Costa, 2005). The disparity between perceived effectiveness of osteopathy (44%) and chiropractic (72%) was significant. Chiropractic was seen as more mainstream than osteopathy and acupuncture again was viewed as the most effective CAM therapy. The authors noted that the 660 opinions gathered in this survey were not very different to those expressed in several regional surveys from the 1990s. One could speculate that without adequate educational interventions, GPs’ knowledge of CAM therapies is slow to develop.

Attitudes of GPs in Tasmania were assessed via a postal survey that contacted all 467 practising GPs and had a 67% response rate (Easthope, Tranter, & Gill, 2000). Attitude was measured using a scale ranging from 5=strongly agree to 1=strongly disagree in relation to statements about CAM and its benefits or threats. Patient endorsement and personal experience were key factors influencing a more positive attitude toward CAM with patient endorsement scoring 2.6 points higher than personal experience. It is interesting to note that a favourable attitude score is higher when knowledge of CAM comes from patient experience as opposed to education. GPs whose attitudes are based on education score one point lower than the personal experience rating. The perceived safety of CAM also scores more favourably based on the same factors. Open communication between patients and GPs may be a crucial factor in directing the need for change.

A 2007 survey questioned 1067 Australian adults via anonymous telephone interview about their CAM use (Xue, Zhang, Lin, Costa, & Story, 2007). The estimated 69.2 million visits to CAM practitioners in a year was very close in number to the 69.3 million visits to a medical practitioner. Treatment use was highest for acupuncture and chiropractic; osteopathy was sixth in the list. The highest prevalence of CAM use was in the age group 18-34 suggesting medical practitioners need to take note of CAM therapies if they wish to have the full picture of their patients’ healthcare as this group will be in their care for many years to come. Fewer
than half of CAM users informed GPs of their visits. This contradicts the findings of Cohen et al. (2005) who found that 54% of the GPs surveyed felt that demand for CAM from patients was increasing. It is also a very different finding to the Whanganui study where GPs reported patients speaking openly about CAM use (Taylor, 2003). None of the studies explore why patients do or do not share CAM use with their GP.

An overview of CAM in Australia was undertaken by McCabe (2005) with the aim of identifying the key issues surrounding the relationship between CAM and mainstream healthcare. An estimated 3000 practitioners practised CAM and business was estimated at two billion dollars per year. Various states had granted approval for CAM courses to be offered at bachelor level, and Medicare, Australia’s universal health care system, introduced new regulations. Osteopaths and chiropractors could claim a proportion of the treatment cost based on a referral from a medical practitioner for specified chronic conditions. Similarly, in New Zealand at the time, osteopathy and chiropractic were regulated. This was partly due to MACCAH Ministry of Health (2001) recommendations that categorised both professions as having the potential to cause harm. Simultaneously, osteopathy moved toward regulation for the recognition it could bring. A major issue highlighted in this overview of CAM in Australia study was lack of regulation of CAM (McCabe, 2005). Concurrently there was an apparent reluctance to legitimise certain modalities seen as lacking in evidence-based practice. This was due to the perceived stamp of validity and efficacy that regulation suggested. The study concluded that without regulated education CAM and mainstream medicine would find it difficult to have a working relationship, as doctors would not trust CAM practitioners. It did not address whether CAM practitioners would trust medical doctors if these steps were taken.

Further studies from Australia continue to emerge, perhaps due to a climate where the study of CAM modalities at university was recently challenged. When traditional Chinese medicine became a registered practise in 2012, a group consisting of doctors and scientists called Friends of Science in Medicine (FSM) challenged the presence of alternative health care courses at university level. Approaching Vice-Chancellors the group claimed CAM courses had no place in universities on the basis of a lack of evidence-based research proving their legitimacy (Brosnan, 2015). The essence of the groups statement was that universities offering CAM courses were ruining their science based reputation and in turn were ‘betraying
science’ and as one FSM member stated “It’s a betrayal of what universities are for, it’s going back to pre-enlightenment” (Moynihan, 2012).

This situation illustrates the divide between CAM and the more conservative elements in biomedicine. It was not successful in terms of shutting down courses in universities in Australia but marginally successful as public confidence was undermined and fear-induced changes were made in CAM courses. The FSM Australian website has a list of CAM therapies and associated papers that posit each therapy in a negative light (Friends of Science in Medicine, n.d.). Under osteopathy there are two papers that suggest cranial osteopathy has no scientific basis for treatment. A few institutions in Australia and the one NZ osteopathy programme removed the cranial teaching component to safeguard their programmes from future attacks. Some would argue that actions like this degrade the essence of osteopathy and are the first steps in allowing biomedicine to dictate what aspects of treatment they will allow to exist in the future. There is a growing body of research available that supports structural osteopathic techniques such as manipulation (National Council for Osteopathic Research, n.d.; Osteopathic Research Web, n.d.). As a consequence of focused attention certain techniques are viewed as having more evidence and validity and are therefore ranked as being more effective by some of the biomedical profession. This is evident in most research relating to low back pain and the cervical spine and could be driven by a need to prove osteopathic worth beginning with the more common presentations to GPs and osteopaths. It could be said that manipulative techniques are not necessarily more effective than other techniques, they have simply received attention due to the crossover with chiropractic care meaning more research exists.

Most research around GPs and CAM has occurred in the form of surveys but little research involving face to face interviews has occurred. A study of 12 GPs from the Greater Auckland area used semi-structured interviews to investigate GP engagement with CAM in daily practice (Upsdell & Jaye, 2011). An interesting outcome was that the GPs who chose to engage in CAM discussions with patients did so out of recognition that this was essential in terms of patient-centered care. Interaction was mainly in the form of directing patients to websites containing evidence-based information for CAM. The study did not ask which websites were used. GPs acknowledged that patients more than likely received some level of care through CAM that they were not providing. This was based on the belief that if they were meeting all their patients’ needs the patient would not be seeking alternative care. It
would be interesting to investigate further the details of care that GPs believe CAM provides and if this equates with what takes place in different CAM settings. General themes emerged from the data that aligned with numerous survey results such as the ‘gulf between the paradigms’ and issues around efficacy and safety. Recommendations were made around access to CAM knowledge sources and a need for increased dialogue between CAM and biomedicine (Upsdell & Jaye, 2011). This study and its qualitative approach highlighted that for many GPs patient-centred medicine and its biopsychosocial essence is just as important to them as evidence-based practice. The desire for better communication between biomedical practitioners and CAM therapists is something new to emerge out of qualitative data and may be a key component to creating an effective working relationship.

**GPs’ perceptions and attitudes toward osteopathy.** The literature directly relating to GPs’ perceptions and attitudes to osteopathy is scarce. Szmelskij, a UK based osteopath, has conducted three studies around this topic between 1992 and 1996. Statutory regulation of osteopathy was underway at the time of the first study and became officially recognised by the Osteopaths Act 1993 (Osteopathic International Alliance, n.d.). An investigation of GPs’ attitudes to and knowledge of osteopathy (Szmelskij & Morris, 1992) involved sending a postal survey to 82 GPs, of whom only 13 responded. The survey was sent with a booklet of osteopathic information and abstracts of some osteopathic research. Drawing meaning from results is limited due to the sample size but also because it is not clear if the respondents had been influenced by the provided information before answering. Results indicated that over 50% of GPs claimed to be clear about the difference between physiotherapy, chiropractic and osteopathy, however less were clear about the difference between osteopathy and manipulation. Musculoskeletal disorders were the main area of referral and no GPs referred for other conditions such as asthma. The study concluded that GPs have a limited knowledge of the use of osteopathy and that this is possibly due to a lack of education. This study is extremely limited in value due to sample size and potential bias but does provide a reference to compare future findings.

A second study was undertaken in 1994 to assess the impact of introducing osteopathic education to trainee GPs (Szmelskij, 1994). A group of 12 trainee GPs were educated on osteopathy for a three-hour session. Education emphasised the neuromusculoskeletal component of training with direct comparison to medical training in this area. Appropriate referral options and spinal manipulation were also given focus. Questionnaires were given to
the seven GPs remaining at the end of the session primarily focusing on whether they thought the education was of any value. Again, the sample size is extremely small but results were very positive with GPs reporting that referring to osteopaths would be an outcome of education.

The third study undertaken by Szmelskyj investigated GP to osteopathy referral patterns and their understanding of osteopathy (Szmelskyj & Mathews, 1996). Aside from small modifications to questions that were identified as ambiguous, the same questionnaire was used as the 1992 pilot study (Szmelskyj & Morris, 1992). Removing osteopathic material from the questionnaire pack and surveying a wider and larger sample of GPs added strength to the results of this survey and possibly provides information more indicative of a national pattern. Results indicated that a lack of knowledge of osteopathy is connected to education at medical school. The majority, 78%, did refer to osteopaths but primarily due to direct contact with an osteopath at some point. Referrals were limited, as indicated by the first study, to lower back and neck pain and never for peripheral joints. Expansion of a referral question from the pilot study provided information on inter-professional communication. GPs expressed a desire for better communication procedures to exist between themselves and osteopaths when referral has taken place.

All three studies by Szmelskyj indicate a general lack of knowledge of the full range of osteopathic treatment in the GP population in the UK. It would seem that an interest is there, limited by exposure during education and an absence of communication channels between the two professions in practice. The fact that all three studies were designed by one osteopath did lead the survey results in a certain direction but they are relevant points to consider.

In comparison two studies exist in Australasia as far as has been ascertained. Factors influencing GP referral to osteopathy were investigated on the eve of the HPCA Act of 2003 in NZ. This pilot study used a new questionnaire based on previous similar studies but utilising a combination of open and closed questions and frequency and categorical scales (Jackson, 2004). The questionnaire was trialed on five people who reported that instructions were clear. One hundred GPs from across Auckland were selected via systematic sampling and 42 responded. Registered GPs in Auckland at the time numbered 461 meaning this was a significant sample. Results pertaining to perception and attitude toward osteopathy were significantly positive considering this appears not to come from knowledge and education.
Results established that knowledge of osteopathy and chiropractic came from patient experience or interactions with practitioners, and physiotherapy from medical education. Referral patterns corresponded with familiarity meaning physiotherapy was used in most cases for musculoskeletal issues. Interestingly when questioned about a positive attitude toward the three professions, GPs placed osteopathy at 62% and chiropractic at 26%. This seems to be based on patient experience. Physiotherapy is considered in a very positive light at 98%. This is most likely connected to a strong reported knowledge of physiotherapy from their education and the many years that physiotherapy has worked alongside and within the biomedical health system. GPs suggested that being supplied with information ranging from training and treatment types to further research would be extremely beneficial (Jackson, 2004). It would be very interesting to repeat this study to investigate if the HPCA Act has had an influence on these results 13 years later. This would offer insight into whether regulating certain CAM professions raises the perceived benefits of a modality and influences referral patterns.

In 2015 there were 4998 registered chiropractors (Chiropractic Board of Australia, 2016) and 2000 registered osteopaths in Australia (Osteopathy Board of Australia, 2016b). Medical registration statistics beginning July 2016 and ending September 2016 showed that there were 24,755 registered GPs in Australia at the time (Medical Board of Australia, 2016). A 2016 Australian study utilised an online survey to gain a current impression of GPs’ views toward chiropractic and osteopathy (R. M. Engel, Beirman, & Grace, 2016). The anonymous survey was developed independent of any previous survey but was tested on a focus group consisting of 19 experienced GPs. A small proportion of GPs responded to the survey (2.6%) so results must be viewed with this in mind. Gender and state distribution were fairly even and the majority of respondents were over forty years of age and had more than ten years in practice. Questions related to demographics, awareness and opinions about osteopathy and chiropractic, referral patterns and communication patterns. Scope of practice between the professions was seen as very similar and over 60% of GPs had not ever referred to either profession. The authors felt that since previous surveys from 2003 the attitude toward both professions had grown less positive. This was based on approximately two-thirds of GPs reporting no interest in learning more about osteopathic and chiropractic education, referral patterns and information gathered from open-ended questions. Suggested reasons for this were a lack of public collaboration between CAM and GPs in the previous ten years and media attention focusing on negative cases and recent suggestions of the ‘pseudo-science’
behind these modalities. The sample size of this study is comparable to the 2005 study of integration of CAM into general practice (Cohen et al., 2005). It is interesting to note that the perceived effectiveness of osteopathy has risen in relation to chiropractic, which has gone down in the 11 years since this study. It would seem that both manipulative therapies are viewed relatively similarly in the current scene.

Cohen et al. (2005) suggested that if the opinions expressed in the study are indicative of thought across the profession then osteopathy and chiropractic professions need to identify the issues and bridge this gap. More qualitative research was suggested as a means of further exploration. Despite the low number of quantitative studies investigating GPs’ perceptions and attitudes toward osteopathy over the past two decades, a clear picture of a lack of a direct relationship is discernable. Interview-based research may provide a deeper understanding of where this perception and attitude comes from and enable practical steps to be taken that will positively affect the relationship.

**Referral to CAM.** ACC provides a valid platform to investigate referral patterns in NZ. A Statistical Analysis of Manual Therapists Funded by ACC provides some indication of injury treatment patterns in NZ (Scarrott, 2008). Between the years 2003-2007 osteopaths had an average of 10% of the market share. In comparison physiotherapists had around 68%, chiropractors 14% and acupuncturists 8%. GP referrals would have resulted in a proportion of these visits but this study was based on statistics provided by ACC and therefore did not include this information. No recent statistical analysis has taken place.

The Medical Council of New Zealand in its most recent statement on CAM directs GPs to inform all patients enquiring about CAM in the following manner: “inform the patient not only of the nature of the alternative treatment offered but also the extent to which that is consistent with conventional theories of medicine” and “when the proposed treatment is expensive or in any way innovative, you should advise patients when scientific support for treatment is lacking” (Medical Council of New Zealand, 2011). If most studies relating to GPs and CAM are consistent with the current situation in New Zealand, then it would be very difficult for GPs to adhere to the Medical Council guidelines. As noted above detailed information is not a component of GPs’ education and is not available via the Ministry of Health or ACC.
Research conducted in rural and regional New South Wales, Australia, provides a recent analysis of GP referral practices (Wardle, Sibbritt, & Adams, 2013). In 2013, a postal survey was sent to the 1486 practising GPs in the area with 585 respondents. This is a relatively high response rate of around 40%. Results found that 64.1% referred to a chiropractor or osteopath. One could venture that there is a possible connection between the high survey response rate and referral practice as both are statistically high compared to other studies. The relationship with chiropractors was far stronger than with osteopaths and one fifth of those surveyed indicated they would never refer. Of those that did refer support was primarily for musculoskeletal conditions. The authors suggest that osteopathy and chiropractic being publicly subsidised has influenced referral to those professions. Subsidy is only available under the Chronic Disease Management Plan (CDM) for certain conditions such as arthritis and chronic lower back pain and is managed by GPs (Australian Government Department of Health, 2014).

The 2016 Australian survey looking at osteopathy and chiropractic referral patterns found that of the 630 respondents, 205 referred to osteopaths and 239 to chiropractors (R. M. Engel et al., 2016). Of those respondents 193 said they would be open to co-managing a patient in relation with an osteopath and 189 would do so with a chiropractor. In terms of education just under half of the respondents were aware that osteopathy is a five-year full time university based programme. While the level of chiropractic education was known to significantly more GPs this does not translate to significantly more referrals. Only a third of GPs expressed an interest in furthering their knowledge of both osteopathic and chiropractic education (R. M. Engel et al., 2016).

**Summary.** Osteopathy has a growing body of evidence to support its efficacy, however, due to a lack of knowledge or perhaps a lack of interest many GPs seem to be unaware of its potential benefits to patients. It may also be that osteopaths are reticent about cultivating a relationship with GPs. A recent study (Rose, 2011) in NZ investigating osteopaths’ attitudes in relation to the health care system found that all six osteopath participants reported feeling a lack of respect during their interactions with GPs. One participant noted that it was probably difficult to respect something you did not understand. Lack of understanding and knowledge seems to be at the core of the GP/osteopath relationship. Concerns were expressed around working within the biomedical system as this may dictate a prescribed type of treatment. There is also the matter of being required to
engage with a very different philosophy of health, disease and care that may conflict with osteopathic philosophy.

Several studies suggest that better access to CAM knowledge and education is a key component to GPs having a positive perception and attitude and consequently an increase in referrals. Communication between CAM therapists and GPs is highlighted as a way of improving the relationship. These suggestions were made by studies and by government research groups such as MACCAH. Change has occurred in New Zealand in terms of legislation but this does not seem to have had a deep impact on the CAM and GP relationship. It is of note that osteopaths do not specifically learn what a GP does as part of their education. Perception is based on personal experience and anecdotes. There is, however, a strong awareness of the overlap between biomedical education and osteopathic education due to course required textbooks being medical textbooks.

The significant number of therapies that are encompassed by the term CAM may also be a barrier to a positive attitude toward osteopathy from the medical profession. Confusion regarding the difference between chiropractic and osteopathy also seems to play a part. The term CAM itself may be a reason why, despite numerous suggestions on how to bridge the divide, there does not seem to have been significant progress made in the last decade. If osteopathy is perceived as ‘alternative’ by the medical profession it must break through the negative connotations that come with that term.

Qualitative research into this area is scarce. Engel, Beirman, Grace (2016) suggest that obtaining information pertinent to moving the relationship forward may be better achieved by means of semi-structured interviews. Exploring GPs’ attitudes and perceptions toward osteopathy via interview may provide valuable insight and suggestions on how to take previous studies’ results further.
Chapter Two: Conducting the research

The chosen methodology and how it applies to the research is explored in this chapter. Firstly qualitative research methods are discussed followed by an examination of descriptive methods and thematic analysis. The application of rigour and how it was applied and maintained during the process of this study is also explored. Methods undertaken in the process of the study are presented including participant recruitment, ethical considerations, data collection and analysis.

Methodology

A qualitative approach. Qualitative research can be defined as:

a form of social inquiry that tends to adopt a flexible and data-driven research design, to use relatively unstructured data, to emphasise the essential role of subjectivity in the research process, to study a small number of naturally occurring cases in detail, and to use verbal rather than statistical forms of analysis. (Hammersley, 2013, p. 13)

The benefits of qualitative research and its ability to provide understanding of a process may lead to close and trusting relationships that encourage a high level of disclosure (Tracy, 2013). As discussed in the literature review, previous studies of GPs’ perceptions of osteopathy have primarily taken place by postal survey. Qualitative research allows the researcher to explore material without the constraints of prior assumptions therefore permitting a topic to be explored in a different light (Morse & Field, 1995). The use of qualitative approach may have provided more insight into the question enabling a deeper understanding when combined with previous quantitative surveys.

Descriptive method. A descriptive method is appropriate when the researcher wants a summary in everyday terms of specific events as experienced by groups of individuals (Lambert & Lambert, 2012). It is particularly useful when the researcher wants a plain answer to questions of significant relevance to practitioners. These types of questions may include: “What are people's responses (e.g., thoughts, feelings, attitudes) toward an event? What reasons do people have for using or not using a service or procedure? Who uses a service and when do they use it?” (Sandelowski, 2000, p. 337).
Evaluating GPs’ perceptions and attitudes toward osteopathy and the effect this has on referral fits this method of enquiry. Descriptive method allows the researcher to provide an accurate account of events that participants and other researchers would agree is true and valid. While the researcher may come from a certain perspective this method enables the study to stay closer to the surface of original data than other research methods (Maxwell, 1992). In this study the researcher sought a method with the lowest level of interpretation in order to gain answers. Neergaard, Olesen, Andersen, and Sondergaard (2009) state that “QD [Qualitative description] is a useful method for many research questions in health care because it can help to focus on the experiences of patients, relatives and professionals” (p.4). As the aim of the research was to illuminate ideas explored in previous studies this choice of method enabled the aim of the study to be met.

Snowball sampling and semi-structured interviews complement the descriptive method. Snowball sampling is a practical way of reaching groups that are difficult to access for varied reasons (Noy, 2008). Interviews are an effective means of focusing on questions of immediate importance that are otherwise difficult to investigate (Chew-Graham, May, & Perry, 2002). Semi-structured face to face interviews are useful for participants who are busy as the researcher may take advantage of social cues to be more time efficient (Irvine, Drew, & Sainsbury, 2013). This interview type complements the descriptive method as there is no significant time delay between question and answer meaning the answer is more spontaneous and less reflective (Opdenakker, 2006).

**Thematic Analysis.** This section describes the thematic analysis process. Specific details relating to its application to this study are explained in the data analysis section. Three types of thematic analysis were utilised and will be discussed below.

Thematic analysis as discussed by Boyatzis (1998), is a simple effective way of coding qualitative information and is applicable to any qualitative methodology. The flexibility of thematic analysis allows the data generated to speak for themselves and is therefore a valuable tool in this research. Braun & Clarke (2006) describe a six step approach to organising data:

1) Familiarising yourself with the data
2) Generating initial codes
3) Searching for themes
4) Reviewing themes
5) Defining and naming themes
6) Producing the report

Utilising an inductive approach, where theme development is directed by the content of the data, enabled the data to be organised to explore the perceptions and attitudes of the participants. Further exploration of thematic analysis was undertaken by applying appropriate Colaizzi steps to the data. Colaizzi stated that his steps were not a set protocol, they were to be adapted in whatever way seemed appropriate (Colaizzi, 1978). The seven steps are described below:

Step 1. Read and understand each transcript
Step 2. Extract significant statements about the topic
Step 3. Formulate meanings for the above statements
Step 4. Organise meanings into clusters of themes
Step 5. Exhaustively describe the investigated topic. All themes, clusters and formulated meanings are brought together into a description of the phenomenon
Step 6. Describe the fundamental structure of the phenomenon
Step 7. Return to the participants. This final validating step assures that the full description of the phenomenon is correct and true to the experience

Steps one to four and six were employed in this study. Step five was skipped due to the adoption of analytical mind map methods deemed more suitable to the data and in keeping with step four of Braun and Clarke (2006) (Appendix B). Step seven was also missed due to the participants stating after their interviews that they did not have time to review the transcripts and would only be interested in a brief synopsis of findings if one should be produced. A loose analysis outline reviewing guiding questions motivating the analysis and potential themes that emerged in coding is recommended by Tracy (2013) as a means of critically assessing the scope of the project. This outline combined with steps four of Braun and Clarke (2006) and Colaizzi (1978) was helpful in focusing the research for the results.

**Addressing rigour in qualitative research.** Rigour is a term encompassing the criteria that allows the reader to make a judgement of the trustworthiness and high overall
standard of the research process (Baillie, 2015). Rigour is essential to qualitative research as it encourages the researcher to describe process in a clear and believable way. The diversity of qualitative research means rigor is not easy to address with one system. Rolfe (2006) argues that as each study is unique it is futile to predetermine the criteria for rigor. Rolfe encourages the writer to leave an extremely detailed audit trail that will enable the reader of the research to determine validity upon reading.

The audit trail method is supported by Koch (1998) who states that rigorous research needs to be transparent and explicit. Keeping a reflexive account of what is going on during the process of research enables the reader to easily put themselves in the position of the participant and therefore have a better chance of trusting the research. Acknowledging one’s inherent position as somebody with a pre-determined social and political system is potentially more truthful than attempting to assume a position of objective naivety. A variety of criteria exists to assess rigour. Four commonly used criteria are credibility, dependability, transferability and confirmability (Lincoln & Guba, 1985). These criteria and their application in this study will be discussed below:

**Credibility.** Credibility refers to expressing a plausible reality or one that seems true (Tracy, 2010). It refers to the value or “believability” of the findings as known, experienced or “deeply felt” by the people being studied (Morse, 1994). To achieve trustworthiness, Lincoln and Guba (1985) suggested prolonged data engagement and peer debriefing as two techniques that enable credibility to be determined. The purpose of peer debriefing is for the peer to agree that paths taken to determine data labels and themes are valid (Graneheim & Lundman, 2004). Credibility allows the reader to feel confident in using the data and findings of a study (Houghton, Casey, Shaw, & Murphy, 2013).

Credibility was ensured in this study by challenging any of the researcher’s pre-conceived ideas about the findings before the interviews began and analysing data over a twelve month period. This length of contemplation allowed for findings to be challenged many times to ensure they remained true to the data. Over this period the researcher presented findings to colleagues and supervisors. Through the process of debate it was established that the findings were believable.
**Dependability.** The concept of dependability is aligned with both reliability and trackable variability, essentially an audit trail that affirms the authenticity of the process and thus the data and findings (Krefting, 1991). This requires a clear and logical research process that is clearly documented and follows a suitable methodology (Munn, Porritt, Lockwood, Aromataris, & Pearson, 2014). Critical appraisal or evaluation of methodological quality is viewed as one way of determining the dependability of a study (Tong, Flemming, McInnes, Oliver, & Craig, 2012). A tool devised by Hannes, Lockwood, and Pearson (2010) specifies the process of critical appraisal as being determined by congruity between the research methodology and research objectives, methods and analysis of data. It also addresses the influence of the researcher on the research and their theoretical stance.

Dependability was demonstrated in this study with an audit trail including examples of the data collection and analysis process. Appendix A is the question template used in the interview process. Appendix B provides an element of the code generation process and Appendix C shows thematic analysis.

**Transferability.** Transferability can also be called fittingness and refers to the original context of data being described adequately so that readers can judge its transferability (Koch, 2006). Providing ‘thick’ descriptions including accounts of the context, research method and examples of raw data enable readers to decide if the findings are transferable to another context (Houghton et al., 2013). It is the job of the researcher to provide detailed descriptions that allow readers to make inferences about extrapolating the findings to other settings and as such is a collaborative enterprise (Polit & Beck, 2010).

Throughout the research process findings were discussed with peers and supervisors to check their fittingness. Direct quotes from the transcripts are presented throughout the results section thus allowing the reader to consider researcher interpretations against their own. There is no single truth in qualitative research but the reader should observe a logical description of the data (Tracy, 2013).

**Confirmability.** Confirmability occurs when credibility, dependability and transferability have been established. At the core of confirmability is reflective practice which allows the reader to have a sense of trust in the findings of the study (Thomas & Magilvy, 2011).
The researcher engaged in regular reflection throughout the analysis process. This involved pre-and post-interview reflections in the data gathering phase and returning regularly to the transcripts and audio recordings to verify truthfulness. Regular consultation with supervisors and peers also served to challenge the findings of the study.

**Methods**

The previous section outlined the methodology of this study. The following section outlines how the study was carried out. The methods section provides details regarding participant recruitment, ethical considerations, data collection and data analysis.

**Participant Recruitment.** A random sample of six GPs was sought as participants. The initial intention was to recruit GPs who referred and GPs who did not, allowing for maximum variation sampling. As stated by Tracy (2013) maximum variation sampling allows researchers to access a wide range of data or participants who will represent wide variations of the studied phenomena. Clinic information was gathered from the Health Point network and a list made of GPs to contact within a 10 km radius of Central Auckland.

Inclusion criteria for the study were: based in Central Auckland and working in a practice with other GPs or health professionals. GPs who did or did not refer were both eligible.

Face to face contact was made at ten clinics where information on the study (Appendix D) was either given to the practice manager or left personally addressed to each GP in the clinic. Follow ups were made by phone but this did not lead to any participant recruitment. GPs are extremely busy people with little time to spare. The difficulty of limited free time was taken into account.

Snowball sampling was identified as an appropriate method for accessing difficult to reach participants and is valuable and appropriate to the method of analysis (Tracy, 2013). Via personal contacts, six GPs agreed to fit me into their busy schedule. They were recruited from two clinics in central Auckland and three in outer suburbs of Auckland. Suitable interview times were organised by phone or email and consent forms signed before each interview commenced.
The participants. All GPs who participated in this research worked in a centre with at least three other GPs. Three GPs had physiotherapists working in their centres and one centre had an osteopath working on a part time basis. Five GPs trained in New Zealand and one GP was educated in the UK but her GP vocational training was in New Zealand. Five of the GPs were female and one participant was male. Ethnic identification was as follows: Three Pākehā, one Pākehā/Māori, one British and one Pacific Islander. Years in practice ranged from 8 to 34. All participants work full time and have done so since completing studies.

Ethical Considerations. Ethical approval was granted by the Unitec Research Ethics Committee for completion of data collection between 13th October 2015 and 13th October 2016 (see Appendix E). Ethical considerations for this study related to confidentiality, anonymity, informed consent, data security and withdrawal conditions.

Potential participants were informed about the study via an information sheet (See Appendix F). An informed consent form was signed by all participants (see Appendix G). All electronic data related to the study has been stored in password protected computer files. Printed transcripts and consent forms have been kept in a locked filing cabinet to which only researchers have access. In accordance with Unitec Institute of Technology’s regulations for research projects consent forms and all electronic data will be securely stored and kept for ten years. After this time all hard information will be destroyed and all digital information deleted. The transcription service was also bound by confidentiality and signed a confidentiality agreement prior to receiving the original files (Appendix H). After analysis all printed transcripts were destroyed.

Participants’ names have been anonymised and any identifying material has been removed from the transcripts and final thesis. No participants chose to withdraw from the study and no changes were made to the interview data as all participants stated they were not interested in seeing the transcripts. All information has been treated with utmost respect and the manuscript will be emailed to all participants post examination of thesis.

Data Collection. Data were collected via face to face interviews and each began with assuring the participant of the confidential nature of the data. The interviewer had taken a moment before arriving at the location for self-grounding and personal reminding to remain
warm, accepting and neutral. Taking this interviewer stance is advisable to ensure the interviewee does not limit their level of disclosure (Tracy, 2013).

Before data collection an interview was undertaken by a colleague to identify any presuppositions or bias that existed in the researcher to ensure they did not become part of the interview process. Bias was also addressed by written reflection pre- and post-interview. The interviews were semi-structured and consisted of closed-ended and open-ended questions. This style of questioning allowed for the gathered data to have a descriptive outcome and potential for further information generation for thematic analysis. As GPs’ daily schedules do not allow much free time the interview was more structured than is common in qualitative research. Identification of sub-topics previous to interviewing allowed for free conversation in a time efficient manner. The interview was terminated once all questions had been answered or discussed. See Appendix A for interview questions.

**Data set.** The length of the interviews ranged from 22 minutes to 30 minutes. Six interviews made up the data set with a total recording time of two hours and forty four minutes. Printed transcripts amounted to 116 pages.

**Data analysis.** All interviews were checked against the recordings and anonymised by the researcher. Pre and post interview reflections were reviewed throughout the analysis phase to check for bias and review the researcher’s stance of neutrality. Analysis aimed to consider the data for common themes via thematic analysis (Braun & Clarke, 2006; Colaizzi, 1978; Tracy, 2013).

Each transcript was separately analysed to familiarise the researcher with the data. This was followed by code generation, categorisation, exploring potential themes and thematic mapping (Appendix C). At the theme generation phase ideas were presented to research staff and peers for discussion and feedback. This was a lengthy and reflective process allowing for themes to slowly develop that were true to the data.

**Summary**

This section has discussed the descriptive and thematic analysis method that has guided the research. All steps of the data collection and analysis process have been outlined. The
following chapter will present the results of the study and discuss the findings in relation to relevant literature. It is set out in manuscript form for publication.
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Sage Publications.
Part Two: Manuscript

Note: This manuscript was prepared in accordance with the guidelines for authors (See thesis Appendix I) for the International Journal of Osteopathic Medicine; there are, however, three main deviations: 1) the manuscript exceeds the prescribed word count of 5000 words in the journal guidelines in order to address the learning outcomes as part of a research thesis; 2) for ease of reading the table is typeset in the text; 3) the style of the headings and subheadings also differs from that prescribed for ease of reading.

In addition, rather than the referencing style specified in the IJOM guidelines for authors, the referencing styles follows that of the American Psychological Association (“APA”). Elsevier’s ‘Your Paper, Your Way’ (www.elsevier.com/authors/journal-authors/your-paper-your-way) permits manuscripts to be submitted in other referencing formats. As APA is a style that makes it easy to follow authors’ names in the text it has been used for this manuscript.
GPs and the Unexplored World of Osteopathy:

A descriptive study

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Abstract

Background: The relationship between osteopaths and General Practitioners (GPs) is of key importance to the development of osteopathy as a profession in New Zealand (NZ). Gaining an understanding of what lies behind the GPs’ perceptions and attitudes toward osteopathy is essential in terms of building a better working relationship. Investigating the influence of this attitude on current referral practice will provide further insight.

Objective: This descriptive study explores GPs’ perceptions and attitudes toward osteopathy and their current referral practice.

Method: Snowball sampling recruited six GPs from Auckland. Data were collected using semi-structured interviews and analysed using descriptive method.

Results: One major theme emerged: The unexplored world of osteopathy. Participants knew that osteopaths were Accident Compensation Corporation (ACC) approved treatment providers but knowledge beyond that was varied and limited. Perception and attitude toward osteopathy stemmed from education, patient reporting or personal experience and was connected to the bigger picture of complementary and alternative medicine (CAM). A minor theme related to referral behaviour also surfaced.

Conclusion: For osteopaths and GPs to have better working relationships, osteopathic education, treatment use and treatment details need to be transparent. GPs require an understanding of how osteopathic practice could fit into the current biomedical structure. To trust osteopathy, they need confirmation that osteopathy is underpinned by sound scientific evidence. This may enhance the perception and attitude toward osteopathy and positively affect referral practice.

Keywords: General Practitioners; Osteopathy: Qualitative Research
Introduction

The perceptions and attitudes of GPs toward osteopathy is of prime importance to the development and acceptance of the osteopathic profession in New Zealand. Osteopathy in the past twenty years has grown from an informal part-time training course to an internationally recognised Masters qualification. The five year programme gives osteopaths a good grounding in anatomy and physiology and other clinical components that mirror biomedical education.

Since 2003 osteopaths have been regulated by the Health Practitioners Competence Assurance Act (HPCA) Ministry of Health (2015), the same act that regulates GPs. Osteopaths are also Accident Compensation Corporation (ACC)\(^1\) approved practitioners. Despite a thorough education utilising the same material as the biomedical world, osteopaths are viewed as alternative and part of CAM.

Patients who seek manual therapy do so either by self-referral or on the referral of a general practitioner. ACC statistics show a strong prevalence for physiotherapy when musculoskeletal referral is needed despite osteopathy being a viable option (Scarrott, 2008). It would seem there may be something underlying GPs’ perceptions and attitudes toward osteopathy that is affecting referral. Qualitative research has the potential to provide valuable insight into what is behind this view allowing a different perspective to be described. Consequently, identification of potential paths that may enhance the GP and osteopathy relationship may be determined.

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\(^{1}\) [http://www.acc.co.nz/](http://www.acc.co.nz/)
The Purpose of this Article

This article provides insight into the perceptions and attitudes GPs have toward osteopathy. As this is one of the few studies investigating this topic from a qualitative perspective it may help osteopaths and GPs to develop ways of enhancing the current working relationship. By identifying key elements contributing to GPs lack of referral to osteopaths perhaps the future of this relationship can be improved.

Methods

Methodology

A qualitative approach was chosen to provide a different insight from that of similar studies from a quantitative perspective. This study was guided by a descriptive approach. Qualitative descriptive research seeks to provide understanding of a process when the researcher wants a plain answer to a question with the lowest level of interpretation (Maxwell, 1992; Sandelowski, 2000; Tracy, 2013). Descriptive method enabled the research question to be answered and provided results and discussion from a distinct viewpoint.

Participants

Six GPs were recruited using a snowball sampling method. All GPs worked in a centre with at least three other GPs. Five GPs were trained in NZ and one in the United Kingdom (UK). Years of practice ranged from eight to 34.

Data Collection

Face-to-face interviews were audio recorded with each participant at the clinic where they practised. Interviews ranged from 22 minutes to 30 minutes with a total data set of 2 hours and 44 minutes. Interviews were semi-structured allowing for the data to have a descriptive outcome and for the process to be time efficient (Irvine, Drew, & Sainsbury, 2013; Opdenakker, 2006).
**Ethics**

The study was approved by the institutional research ethics committee (Appendix E). Verbal and written informed consent was gained prior to each interview commencing. Participants were invited to review transcripts and could withdraw from the study up to two weeks after receiving the transcripts. All participants chose not to review transcripts due to busy schedules and were happy for the researcher to proceed on the basis of anonymity. All data relating to participants were password protected and the transcriptionist signed a confidentiality agreement (Appendix H).

**Data Analysis**

All interviews were transcribed verbatim and anonymised by the researcher prior to analysis. The aim of analysis was to consider the participants’ attitudes and perceptions of osteopathy and identify common themes. Data analysis was guided by descriptive method and thematic analysis as outlined by (Braun & Clarke, 2006; Colaizzi, 1978; Tracy, 2013). Each transcript was separately analysed to ensure familiarity with the data. Codes were generated and organised to make meaning of the data. Thematic mapping explored patterns across transcripts and allowed for themes to emerge. Themes were discussed with supervisors and research peers in order to review and refine. This process was slow and systematic to ensure the final theme was decided upon after adequate periods of reflection.

**Rigour**

Rigor was assessed using the criteria of credibility, dependability, transferability and confirmability (Lincoln & Guba, 1985). Credibility was ensured by challenging any pre-conceived ideas about the findings before the interviews began followed by regular testing of the findings believability. Analysing data over a twelve month period allowed for regular peer debate and reflection to check validity and trustworthiness of findings. Dependability was demonstrated with an audit trail including examples of the data collection and analysis process. Transferability is addressed by providing direct quotes from the transcripts throughout the results. This allows the reader to consider researcher interpretations against their own. Regular reflective practice and returning to the transcripts throughout the analysis.
process establishes confirmability. Peer and supervisor discussion additionally challenged the truthfulness of this process.

**Findings**

One overarching theme emerged from the GPs’ discourse regarding osteopathy; The unexplored world of osteopathy. In addition, concepts relating to CAM in NZ were apparent and provide a background to the findings that are explored in the discussion.

Table 1.
*Theme and subthemes*

![](image)

**Theme: The unexplored world of osteopathy**

*...I wouldn’t really know what to…...Yeah I don’t really know what you do* (P1, p.12).

*What do I imagine happens? Well, it’s a bit of a mystical basket, I’m really not entirely sure* (P6, p.99).

Participants were generally unsure as to what osteopathy is but they knew of its existence. Underlying this was a perception and attitude toward osteopathy and CAM. For this reason the data relating to CAM and osteopathy is separately discussed under each subtheme. It was
often difficult to discern whether the attitude drove perception or vice versa. A third element to this concept was the behaviour with regard to the process of referrals, most probably influenced by attitude and perception.

**GPs’ knowledge of CAM**

*CAM*

...we had a complementary medicines module, and, I think, maybe third year at medical school and we got assigned different complementary medicines. I think, I actually got osteopathy......one of them was chiropractors, and like... I don't know. Oh no, maybe I did homoeopathy. Anyway, but there was a whole lot of other non-medical things that we just talked about (P1, p.2).

...and I tend to see physios as doing a similar job to osteopaths. I know that they are different, but I haven't really got the fine points of how different they are (P6, p.98).

Initial exposure to CAM occurs at medical school and all participants described this module as scant in terms of each therapy encountered. One could surmise that the purpose of this exposure to CAM was to inform GPs of the plethora of ‘non-medical’ therapies out there. Participants all spoke of CAM as being non-evidence based practise. Perception seemed to be primarily related to this factor and this was its major difference with biomedical practice. Reviewing scientific evidence was considered the main way of evaluating a therapy for its use. Participants viewed musculoskeletal providers in a hierarchical way with physiotherapy at the top, followed by osteopathy and then chiropractic. Physiotherapists were seen as the main therapists treating soft tissue complaints. Chiropractic care generated a sceptical response. Despite participants describing a lack of understanding regarding the difference between osteopathy and chiropractic the latter was perceived as less science-based. Chiropractic was described as exposing patients to unnecessary radiation by utilising x-rays as standard practice. It was also perceived as advising multiple treatments for the sake of generating money. The majority of participants detected a closer association between physiotherapy and osteopathy although the reasons for this were not clear. Acupuncture was brought up by one participant. Due to a high number of Korean patients seen in this participant’s practice, acupuncture was the primary system of care for the majority of issues.
The strongest distrust was around homeopathy and naturopathy, viewed as being the extreme end of non-science based practice.

**Osteopathy**

So, I think what I understand is that you connect, you look at a person as a holistic being, so that... And basically to do with musculoskeletal and the neuro... What's this, the neuro system and how it connects the whole body. So, I think to my understanding is you do mainly kind of body, like massages or whatever, and trying to help people basically with pain and other conditions (P4, p.64).

I guess my basic understanding is that it's manipulation of the bones, or in the case of cranial osteopathy, it must be skull bones, to treat different medical conditions. But that's all I know (P1,p.5).

It would seem that perception of osteopathy is not influenced by education. Knowledge of osteopathy was derived from patient reporting, personal experience, assumption or a recounting from a family member. As a consequence perception of osteopathy varied. Participants seem to think of osteopathy as primarily structural and manipulative with a musculoskeletal focus. Osteopathy was viewed as suitable for the spine but not for peripheral joints. The majority mentioned hearing about cranial osteopathy for babies via patient experience. Cranial osteopathy seemed to be regarded as more alternative than structural osteopathy.

The majority of participants thought of osteopathy as non-medical and alternative aside from one participant who had investigated osteopathy and categorised structural osteopathy as evidence-based practice. Exposure to osteopathic education as a guest speaker on the Masters programme may have favourably influenced this participant’s perception of osteopathy. What normally takes place in a standard osteopathic session was varied with descriptions ranging from fairly accurate to absolutely no idea. How osteopathy could be utilised for common musculoskeletal presentations to a GP was generally unknown.
Perceived risks of CAM use

CAM

I have nothing against it as long as it doesn't interfere with the medical treatments (P4, p.65).

I would be very happy to have evidence-based therapies exposed...and also to expose non-evidence based therapies, 'cause ACC has such a wide entry point (P2, p.22).

A strong attitude expressed by all participants related to all CAM therapies being acceptable as long as they did not interfere with evidence-based medicine. All participants described CAM therapies such as osteopathy, chiropractic and acupuncture as more acceptable than therapies such as naturopathy and homeopathy. These two therapies were mentioned by three participants as being potentially dangerous as they can be advised as a replacement for pharmaceutical drugs or have an adverse interaction with them. The participants also strongly felt that these therapies were a waste of money and that people were being taken advantage of when engaging in this type of care. The majority of participants expressed thoughts about chiropractors being driven by money primarily over patient care. Four participants noted that osteopaths did not seem to do this and would refer on when treatment was not effective. The participant with the least years in practice (8) specifically stated that educators in the first year of GP training had a derogatory attitude toward chiropractors and osteopaths. Regarding ACC, P2 felt that ACC allowed referral to therapies that in their view that did not have evidence supporting its use. This participant also felt physiotherapists were of no use unless being told to do something very specific. This was in contrast to the rest of the participants that had a positive attitude toward physiotherapy in comparison to other musculoskeletal providers.
Osteopathy

I think it's gonna be a lot more medicalised, the osteopaths, this is different from chiropractic so I imagine that you take a history like physios do and like we do (P6, p.99).

Because I do have a few patients who do go to [an] osteopath. I'm open to that, as long as it doesn't interfere with their medical treatment. But most of the time it doesn't (P4, p.65).

Osteopathy, like CAM in general, was acceptable as long as it did not interfere with the GPs line of treatment. Four participants noted that osteopaths did not seem to continue treatment and would refer on when treatment was not effective. This was spoken about positively. The general belief was that osteopathy and its work with manipulating joints and soft tissue was doing no harm. This style of osteopathic treatment was viewed as probably being evidence-based practice as opposed to other CAM therapies including chiropractic. Cranial osteopathy seemed to bring out a more doubtful attitude and P6 stated that a lot of medical people think cranial osteopathy is “hocus pocus”.

Constraints of existing patterns of referral

CAM

...we get more exposure to other allied health [professionals] or even working in the hospital, you see what a physio does, you know what they do, whereas you don't really get exposure to osteopaths or chiropractors, they're not working in the same environment (P1, p.12).

I don't know, I suppose I kind of look at physios in a much more higher esteem (P3, p. 88).

Referral behaviour was reported as closely tied to participants’ perception of what was evidence-based and familiar. All participants referred to physiotherapists for anything of a musculoskeletal nature. Other CAM therapists were not considered unless the patient asked
about a specific therapy. Participants stated that in this situation they would encourage the patient to try the therapy if it was perceived as being safe. There was no direct referral to any type of CAM therapy though five participants described patients reporting CAM use at some stage. One participant stated that patients never discussed CAM and joked that maybe “it's because I'm old and crusty and come from a very orthodox medicine base”.

**Osteopathy**

*I don't really know what you do, so I have to refer [to] someone... Whereas I know what a physio does. I guess that's the difference* (P1, p.12).

*I don't refer but when I mentioned the osteopaths who can help with the neck and cranial stuff for babies, that's when I start thinking it's a bit more of an alternative camp* (P6, p.108).

As with other CAM therapies osteopathy was not seen as a suitable modality for referring a patient. A lack of knowledge regarding the use of osteopathy was behind this. Musculoskeletal complaints, if deemed necessary for referral, were either to a physiotherapist within the practice or a general physiotherapy referral. The perception that osteopathy is not specialised was expressed by P1, though they did consider physiotherapy to be a specialist referral. Many participants accessed details of physiotherapists and other specialists for referral via computer programmes designed to share patient information. These systems that included Healthpoint, Healthlink and Medtech do not include osteopaths on their data base as options for referral.

**Discussion**

This study focused on the perceptions and attitudes GPs have toward osteopathy. It highlighted a general lack of knowledge regarding osteopathy that is reflected in the overarching theme: The unexplored world of osteopathy. The basis of the findings indicated that CAM is still perceived as a group of therapies that is non-medical in nature and osteopathy is part of this group. CAM is considered an alternative path of healthcare as opposed to something that can work in conjunction with biomedical care. The divide is
cemented further by computer systems used by GPs that do not include an osteopathic referral option. This has a profound influence on the utilisation of CAM therapies when musculoskeletal referral is considered and when patients and GPs engage in conversation on this matter.

Studies investigating GPs’ attitudes toward osteopathy in the UK from over twenty years ago have concluded that without adequate information and education it is difficult for change to occur (Szmelskyj, 1994; Szmelskyj & Mathews, 1996; Szmelskyj & Morris, 1992). A recent comprehensive study of GPs referral patterns in Australia by Engel, Beirman, and Grace (2016) also found that under half of the respondents were aware of the length of osteopathic education. It could be said that the key to changing this relationship lies in education. GPs in all the studies stated a lack of knowledge of osteopathy and CAM in general deeply influenced referral behaviour. If exposure to CAM is minimal and cursory then GPs may find it difficult to trust CAM practitioners for referral. With regard to musculoskeletal referrals participants indicated that without adequate knowledge of osteopathic education and a good understanding of what happens in an osteopathic treatment they are unlikely to refer. A key component of positive interactions taking place between GPs and osteopaths is the attitude of osteopaths. In a study investigating osteopaths’ attitude toward integration, Rose (2011), found that many osteopaths saw working with GPs as potentially limiting the scope of their osteopathic practice. This was mainly due to the possibility that this may restrict the use of techniques to those that have been studied and deemed as evidence based. The study also found that having a working definition of what osteopathy is would be very difficult to produce due to the different types of osteopathy and individual styles of practice. It would seem that integration may not be the answer and that cultivating a mutual respect based on understanding and knowledge may create a better working relationship.

Participants in this study spoke favourably of physiotherapy in relation to the perceived active engagement of patients in a physiotherapy session. Both osteopathy and chiropractic were viewed as a passive treatment. This is a perception that no doubt strongly influences referral patterns and could be redressed via education. The nationwide survey of GPs’ attitudes toward CAM from just over ten years ago, Duke (2005), found that 67% (N=500) of GPs would like more information on CAM in their medical education. The same study also highlighted that the difference between osteopaths and chiropractors is unknown. Questions relating to perception and use of ‘chiropractic manipulation’ and ‘osteopathy’ indicated a
more positive attitude toward chiropractic. The wording itself is indicative of the general state of confusion around CAM therapies as chiropractors ‘adjust’ and osteopaths ‘manipulate’. This contrasts with the findings of this study which noted a more skeptical attitude toward chiropractic. Their comments suggested that this attitude may be in relation to a growing awareness of regular x-rays as a part of chiropractic care and a package treatment approach to payment. The differences between osteopaths and chiropractors again could be stated during education or via information on the Ministry of Health (MOH) website or ACC.

The effect of ACC and its expansion of approved practitioners does not seem to have positively influenced referral patterns. Although many osteopaths follow clinical practice guidelines, Accident Compensation Corporation (2016), when treating an ACC patient there does not seem to be an awareness of this amongst GPs. The ACC website has an evidence based healthcare reports section, Accident Compensation Corporation (2015), which unfortunately does not have any information on osteopathy or a section dedicated to CAM. Given the call for evidence based practice regarding CAM this is an avenue for information that could be utilised by GPs if it were expanded upon. This issue of safety was expressed by participants in terms of wanting evidence of the efficacy of a therapy before they would give it consideration. It would seem that a credible source of information may need to be offered to GPs for perception and behaviour to change. Most participants in this study reported a neutrality in relation to ACC and the use of approved practitioners. One participant expressed a clear disapprobation for ACC, claiming their inclusion of CAM therapists was ‘too wide’.

Another participant thought that ACC endorsement implied a level of credibility to a therapy though this did not influence referral. Participants reported being aware of practitioners becoming ACC approved but did not receive information as to the potential use they may have for referral. It may be that ACC has the potential to positively influence the relationship between GPs and CAM for a proportion of GPs.

Significant time has now passed since the Ministerial Advisory Committee on Complementary and Alternative Health (MACCAH) submitted its report to the NZ MOH with recommendations based on three years of research into the place of CAM in NZ (Ministerial Advisory Committee on Complementary and Alternative Health, 2004). General recommendations were that CAM and biomedicine could achieve a better level of integration for the sake of minimising risk and maximising health outcomes for patients. Osteopathy and chiropractic, alongside physiotherapy, were regulated under the HPCA Act 2003, Ministry of
Health (2015), following this report. Alongside this regulatory levelling of musculoskeletal providers, NZ trained osteopaths were graduating with a New Zealand Qualifications Authority (NZQA) approved Masters qualification for the first time.

As this was thirteen years ago one could presume that there might have been a significant change observed in the behaviour of GPs toward CAM in terms of current practice. In a study investigating factors influencing GP referral to osteopathy Jackson (2004) found that GPs were more likely to refer to professions they felt more knowledgeable about. The study focused on a group of Auckland based GPs and results indicated a strong preference for physiotherapists and little referral to osteopaths. It is interesting that the current study had the same results despite the difference of twelve years. Changes in legislation which may have changed referral behaviour seem to have had little influence. At the time of Jackson’s study there was no difference in the results of their own study compared with a larger postal survey of 100 GPs in the Auckland area from nine years before (Preston-Thomas, van den Bergh, & Maxwell, 1993). Looking at these results in relation to the current study one could say there has been no shift in musculoskeletal referral practice for the past 23 years in the demographic of Auckland based GPs. This may be indicative of the bigger picture and if so it would seem from the current study that the perception and attitude toward CAM has not altered. Interestingly the qualitative study of 12 Auckland GPs and their engagement with CAM in daily practice by Upsdell and Jaye (2011) found the participants were engaging in conversation with patients about CAM due to realising it was essential to patient care. This suggests that elements of the MACCAH recommendations have filtered down to daily practice but the main issue of GPs feeling well informed about CAM needs to be addressed for referral behaviour to change.

**Limitations of this research**

The difficulty of finding GPs with time to be interviewed meant that snowball sampling occurred rather than maximum variation sampling that may have added to the findings. A small group of six participants is also a limitation in terms of the findings.

**Recommendations for the profession**

Most participants stated that increased transparency around shared patients would make a positive difference to their perception of CAM. Having a clear picture of what took place in a physiotherapy treatment was highlighted as a key component of referral practice. The
majority of participants viewed being uninformed regarding CAM use as unfavourable to the patient. Direct communication was welcomed by all participants and would potentially enhance the perception of osteopathic skill at a far quicker pace than by other means. Encouraging osteopaths to report back to practitioners who have referred a patient may be one way of addressing this.

All participants expressed an interest in osteopathic education post interview and seemed genuinely surprised that this education had components the same as their own and were of a biomedical nature. For future understanding it may be beneficial if professional osteopathic associations had information on their websites that both GPs and consumers could access. This could identify the similarities and differences between musculoskeletal providers in terms of education and treatment and specify where this education overlaps with the biomedical model.

**Further research**

This is one of the few studies that uses a qualitative method to investigate the perception and attitude GPs have toward osteopathy and consequently CAM. In a larger study utilising face to face interviews a more direct insight into potential paths of change may be gained. This is a complex issue and there are many related areas that can be researched. These include an investigation into a change of behaviour between GPs with formal GP education and those that have not; perceptions and attitudes of GPs of different ethnicities toward CAM; potential forums for CAM information that GPs would engage with; a pilot study investigating GP educator’s knowledge of CAM and possible paths of communication for GPs to engage in a time efficient manner with CAM practitioners.

**Conclusions**

The GPs lack of knowledge and understanding of osteopathy seems to be at the core of the relationship between these professions. This leads to a perception and attitude toward osteopathy based on a general attitude toward CAM. Osteopathy is viewed as an alternative to biomedical care that is non-evidence-based practice and non-medical in origin. Knowledge being derived from GPs personal experience, patient experience or hearsay means varied perceptions exist. There is also little to no understanding in relation to the differences between structural, cranial and visceral osteopathy. The result of this viewpoint is that
osteopathy is not considered as a referral option for the common musculoskeletal issues that GPs encounter.

Change over the past thirteen years has been glacial and it would seem different paths need to be explored to shift the GP-osteopath relationship. A crucial step toward change could be for osteopaths to initiate communication by sharing beneficial patient information with GPs. This could be implemented immediately. Modifications required to change perception within biomedical education around CAM are not as simple to affect. Perhaps with a willingness to explore, GPs may discover the world of osteopathy. An increased awareness of the similarities between osteopathy and biomedicine may allow the differences to be looked upon favourably and not as alternative in the negative sense. Closer professional relationships could also be fostered by the osteopathic professional association with information targeted toward increasing GPs’ knowledge of osteopathy.
References


Part Three: Appendices
Appendix A: Interview questions

Interview Guide and questions

During this 45-minute interview we will endeavour to cover the questions in this interview guide. If at any time you wish to retract something you have said, please let the interviewer know. The time on the recording device will be noted and the comments will be excluded from the data analysis. As part of this process, the interviewer may also take written notes to highlight areas of particular interest.

- What inspired you to become a doctor?
- Do you identify as Māori and is there anything related to this that you would like to convey?
- Did you learn about osteopathy at medical school?
- What other therapies did you learn about at medical school?
- How do you keep up to date/fulfill professional development criteria?
- Do you feel you have a good understanding of osteopathy and other ACC registered therapists such as chiropractors, acupuncturists and physiotherapists?
- Can you describe to me what may take place in an osteopathic treatment?
- Do you understand the difference between osteopathy and manipulation?
- Do you believe osteopathy can be good for axial or lower limb skeletal complaints?
- Do you believe osteopathy can be good for visceral functional or upper limb complaints?
- In your understanding do osteopaths, chiropractors and physiotherapists have the same level of education?
- Do you think it would be useful to learn about the different ACC endorsed therapies as part of your education?
- Do many of your patients ask you about osteopathy?
- Do they ask about other CAM therapies? If so which ones?
• Have questions about CAM therapies increased since you started practising?
• Are there any CAM therapies that you think are particularly effective or harmful?
• Have you ever had a patient that has responded negatively/positively to CAM?
• Do you refer to osteopaths?
• If so how often?
• Do you refer to other CAM therapists?
• What led to your referral? Personal experience, word of mouth or other?
• Do you refer to osteopaths for any of the following? If not can you please tell me who you refer to?
  Lumbar pain
  Headaches
  Neck pain
  Thoracic pain
  Limb pain
  Asthma
  Hypertension
  Constipation
  Pregnancy issues of a musculoskeletal nature

• Do you have a referral directory?
• Is this managed by yourself or your receptionist?
• How is the referral database built?
• Do you expect to hear back from the osteopath if you refer? If you don’t hear back will this affect your referrals in the future?
• Would you have osteopathic information in your clinic?

To conclude we will discuss any questions or queries you may have regarding the interview. Please feel free to contact the researcher at any point if any questions or concerns arise in the days following the interview. A transcript will be posted to you once it has been completed by on line scribing service scribie.com.
Your participation in this research is greatly appreciated.
Contact details. Lead researcher: Kushla Currie, Ph. 021 069 3608
Email. osteopathyresearch@gmail.com
Appendix B: Data analysis process

GP's knowledge
- what happens in session
- recommendations for better
  - cranial
  - demographic influence
  - system of work
- education
- referrals/system/office/directories

Compl/alt medicine
- attitudes
- practices/referrals/system
- knowledge/experience
- ACC
- evidence

Osteopathy
- understanding
- chiropractic
- diff ht.
- level of ed.
- exposure
- family/ethnic

Future recommendations
- as in what GPs think
  would work best for
  integration

Understanding
- what happens in a session
- diff ht./chin/ask...
- education/training
- medical school/other
Appendix C: Thematic Analysis

- Expanding known ways
  - "We get more exposure to other allied health"

- CAM is an unknown country from medicine
  - "Show me the evidence"
  - "Non-medical vs biomedical"
  - "Two camps with osteopathy standing in the fence"
  - "One of the key roles I see of general practice primary care is being the ringmaster, the common point that touches people's health"

- Osteopathy is opaque
  - "I don't really know what you do, so I have to refer to someone"
  - "It's poor, it's very poor" (Q. in relation to bonding)

- Sourcing outside expertise for the patient
  - "There are so many stupid ACC-endorsed therapists"
  - "ACC has such a wide entry point"
  - "Where does this treatment package fit into the scheme of things? Or what sort of injuries is it indicated to send your patient to this panel?"
Appendix D: Invitation to participate

An invitation to participate in a research project

The relationship between osteopaths and general practitioners (GPs) is of key importance to the development of osteopathy as a profession in New Zealand. Gaining an understanding of what constructs the GPs’ attitude toward osteopathy is essential in terms of building a better working relationship.

My name is Kushla Grace Currie. This research is a component of the Masters of Osteopathy at Unitec, New Zealand.

What does this involve?

We will be conducting interviews with six participants to gain an impression of the working relationship between GPs and osteopathy. The data from these interviews will be analysed to produce a report on this. Interviews will be 45-75 minutes long.

For further information please contact:
Kushla Currie
Ph. 021 069 3608
osteopathyresearch@gmail.com

Approval for this study was granted by Unitec’s Research Ethics Committee on 22.10.15 to be undertaken between 13.10.15 and 13.10.16. Approval number: 2015-1059
Appendix E: Ethics Approval

Kushla Currie
2/29 Douglas Street
Ponsonby
Auckland

22.10.15

Dear Kushla,

Your file number for this application: 2015-1059
Title: Perceptions and attitudes of a sample of General Practitioners (GPs) toward osteopathy

Your application for ethics approval has been reviewed by the Unitec Research Ethics Committee (UREC) and has been approved for the following period:

Start date: 13.10.15
Finish date: 13.10.16

Please note that:
1. The above dates must be referred to on the information AND consent forms given to all participants.
2. You must inform UREC, in advance, of any ethically-relevant deviation in the project. This may require additional approval.

You may now commence your research according to the protocols approved by UREC.
We wish you every success with your project.

Yours sincerely,

Sara Donaghey
Deputy Chair, UREC

cc: Elizabeth Niven
Cynthia Almeida
Appendix F: Information for participants

My name is Kushla Grace Currie. I am currently enrolled in the Masters of Osteopathy at Unitec, New Zealand and seek your help in my thesis research.

**Research Project Title:**

Perceptions and attitudes of a sample of General Practitioners (GPs) toward osteopathy

**Synopsis of project**

The relationship between osteopaths and general practitioners (GPs) is of key importance to the development of osteopathy as a profession in New Zealand (NZ). Gaining an understanding of what constructs the GPs’ attitude toward osteopathy is essential in terms of building a better working relationship. This research aims to identify why some GPs refer to osteopaths and why some do not, and seeks to understand what elements influence this behaviour.

**What we are doing**

We are conducting interviews with six participants to gain an impression of the working relationship between GPs and osteopathy. The data from these interviews will be analysed to produce a report on this.

**What it will mean for you**
A 30-45 minute interview will take place either in your clinic or in Clinic 41, the student osteopathy clinic on the Mt Albert campus of Unitec; whichever is more suitable to you. The interview will be sent to a transcription service and you will receive a copy of the transcript if you wish. The researcher will provide refreshments at the interview as a thank you for giving up your time to participate in this research project.

If you agree to participate, you will be asked to sign a consent form. This does not stop you from changing your mind if you wish to withdraw from the project. However, because of our schedule, any withdrawals must be done within 2 weeks after receiving your transcript. Your name and information that may identify you will be kept completely confidential and pseudonyms used in the data. Neither you nor your organisation will be identified in the thesis.

All information collected from you will be stored on a password-protected file and only the researcher and supervisors will have access to this information. Written data will be stored in a locked cabinet in the home of the lead researcher.

The research will be published in the form of a thesis available in the Unitec library including the online library. There is potential for this research to be published in osteopathic and medical journals.

Please contact us if you need more information about the project:
osteopathyresearch@gmail.com
Ph. 021 069 3608

At any time if you have any concerns about the research project you can contact my supervisor: Elizabeth Niven, ph. 021 654 935 or email eniven34a@gmail.com

UREC REGISTRATION NUMBER: 2015-1059
This study has been approved by the UNITEC Research Ethics Committee from 13/10/2015 to 13/10/2016. If you have any complaints or reservations about the ethical conduct of this research, you may contact the Committee through the UREC Secretary (ph: 09 815-4321 ext 8551). Any issues you raise will be treated in confidence and investigated fully, and you will be informed of the outcome.
Appendix G: Participant Consent form

Participant Consent Form

Research Project Title:

Perceptions and attitudes of a sample of General Practitioners (GPs) toward osteopathy

I have had the research project explained to me and I have read and understand the information sheet given to me.

I understand that I don't have to be part of this research project should I choose not to participate and may withdraw at any time prior to the completion of the research project.

I understand that everything I say is confidential and none of the information I give will identify me and that the only persons who will know what I have said will be the researcher and the supervisors. I also understand that all the information that I give will be stored securely on a computer at Unitec for a period of 10 years.

I understand that my discussion with the researcher will be taped and transcribed.
I understand that I will be offered an electronic version of the final thesis.
I have had time to consider everything and I give my consent to be a part of this project.

Participant Name: .......................................................... ........................................

Participant Signature: ..................... Date: ........................................

Project Researcher: ................................. Date: .................................
UREC REGISTRATION NUMBER: 2015-1059
This study has been approved by the UNITEC Research Ethics Committee from 13/10/2015 to 13/10/2016. If you have any complaints or reservations about the ethical conduct of this research, you may contact the Committee through the UREC Secretary (ph: 09 815-4321 ext 8551). Any issues you raise will be treated in confidence and investigated fully, and you will be informed of the outcome.
Appendix H: Transcription service confidentiality agreement

Research Title: Perceptions and attitudes of a sample of General Practitioners (GPs) toward osteopathy

Researcher Name: Kushla Grace Currie
Address: 2/29 Douglas Street, Ponsonby, Auckland 1021, New Zealand
Phone number: 0064 21 069 3608
Email: kushlagrace@gmail.com

I, Rajiv Poddar, agree to treat in absolute confidence all information that I become aware of in the course of transcribing the interviews or other material connected with the above research topic. I agree to respect the privacy of the individuals mentioned in the interviews that I am transcribing. I will not pass on in any form information regarding those interviews to any person or institution. On completion of transcription I will not retain or copy any information involving the above project.

I am aware that I can be held legally liable for any breach of this confidentiality agreement, and for any harm incurred by individuals if we disclose identifiable information contained in the audiotapes and/or files to which we will have access.

Signature: [Signature] Date: [Date]

UREC REGISTRATION NUMBER: ####
This study has been approved by the UNITEC Research Ethics Committee from (date) to (date). If you have any complaints or reservations about the ethical conduct of this research, you may contact the Committee through the UREC Secretary (ph: 09 815-4321 ext 8551). Any issues you raise will be treated in confidence and investigated fully, and you will be informed of the outcome.
Appendix I: International Journal of Osteopathic Medicine:
Research submission guidelines


Author guidelines (abridged form):

General Guidelines

Reviews and Original Articles (2,000 - 5,000 words)

Authors should select "Review Article" or "Full Length Article" at the submission stage when submitting either a Review or an Original Research article. These should be either (i) reports of new findings related to osteopathic medicine that are supported by research evidence. These should be original, previously unpublished works; or (ii) a critical or systematic review that seeks to summarise or draw conclusions from the established literature on a topic relevant to osteopathic medicine.

Preparation of the Manuscript

Submitted papers should be relevant to an international audience and authors should not assume knowledge of national practices, policies, law, etc. Authors should consult a recent issue of the journal for style if possible. Since the journal is distributed all over the world, and as English is a second language for many readers, authors are requested to write in plain English and use terminology which is internationally acceptable.

Abbreviations - Avoid the use of abbreviations unless they are likely to be widely recognised. In particular you should avoid abbreviating key concepts in your paper where readers might not already be familiar with the abbreviation. Any abbreviations which the authors intend to
use should be written out in full and followed by the letters in brackets the first time they appear, thereafter only the letters without brackets should be used. Statistics - Standard methods of presenting statistical material should be used. Where methods used are not widely recognised explanation and full reference to widely accessible sources must be given.

**Manuscript Layout**

The manuscript with a font size of 12 or 10 pt double-spaced with wide margins (2.5 cm at least) and number pages consecutively beginning with the Title Page. Depending on the paper type (see above) this should include the title, abstract, key words, text, references, tables, figure legends, figures, appendix. Microsoft Word or similar programme should be used.

Papers should be set out as follows, with each section beginning on a new page:

*Title page*

*Keywords*

*Abstract*

Both qualitative and quantitative research approaches should be accompanied by a structured abstract of no more than 250 words. Commentaries and Essays may continue to use text based abstracts of no more than 150 words. All original articles should include the following headings in the abstract as appropriate: Background, Objective, Design, Setting, Methods, Participants, Results, and Conclusions. As an absolute minimum: Objectives, Methods, Results, and Conclusions must be provided for all original articles.

*Text*

The text of observational and experimental articles is usually, but not necessarily, divided into sections with the headings; introduction, methods, results, results and discussion. In longer articles, headings should be used only to enhance the readability. Three categories of headings should be used:

- major headings should be typed in capital letter in the centre of the page and underlined (i.e. INTRODUCTION)
• secondary ones should be typed in lower case (with an initial capital letter) in the left hand margin and underlined (i.e. Participants).

• minor ones typed in lower case and italicised (i.e. questionnaire).

Do not use 'he', 'his' etc. where the sex of the person is unknown; say 'the patient' etc. Avoid inelegant alternatives such as 'he/she'.

Statement of Competing Interests

When submitting a manuscript you will need to consider if you, or any of your co-authors, are an Editor or Editorial Board member of the International Journal of Osteopathic Medicine.

References

Responsibility for the accuracy of bibliographic citations lies entirely with the authors. Citations in the text: Please ensure that every reference cited in the text is also present in the reference list (and vice versa). Any references cited in the abstract must be given in full. Citation of a reference as 'in press' implies that the item has been accepted for publication. Text: Indicate references by number(s) in square brackets in line with the text. The actual authors can be referred to, but the reference number(s) must always be given.

Submission Checklist

Please check the manuscript carefully before it is sent off to the Editorial Office, both for correct content and typographical errors, as it is not possible to change the content of accepted typescripts during the production process. As a guide, please ensure the following had been included:

• One copy of manuscript and;
• Tables, figures and illustrations, uploaded separately and correctly labelled;
• Reference list in correct style and correct in-text referencing;
• Written permission from original publishers and authors to reproduce any borrowed any borrowed material (where relevant)
Declaration

Name of candidate: Kushla Grace Currie

This Thesis/Dissertation/Research Project entitled: GPS and the Unexplored World of Osteopathy: A Descriptive Study

is submitted in partial fulfillment for the requirements for the Unitec degree of Masters of Osteopathy.

Principal Supervisor: Dr. Elizabeth Niven

Associate Supervisor/s: Megan McEwen

CANDIDATE'S DECLARATION

I confirm that:

• This Thesis/Dissertation/Research Project represents my own work;
• The contribution of supervisors and others to this work was consistent with the Unitec Regulations and Policies.
• Research for this work has been conducted in accordance with the Unitec Research Ethics Committee Policy and Procedures, and has fulfilled any requirements set for this project by the Unitec Research Ethics Committee.

Research Ethics Committee Approval Number: ...........................................

Candidate Signature: ................................................. Date: 17/02/2017

Student number: 1397319
Full name of author: Kushla Grace Currie

Full title of thesis/dissertation/research project ('the work'): GPs and the Unexplored World of Osteopathy: A Descriptive Study.

Practice Pathway: .................................................................
Degree: Masters of Osteopathy
Year of presentation: 2017
Principal Supervisor: Dr. Elizabeth Niven
Associate Supervisor: Megan McEwen

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Signature of author: ...............................................................
Date: 17/02/2017