Declaration

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This Thesis/Dissertation/Research Project entitled “The identification, assessment and management of somatisations in clients of osteopathic practitioners in New Zealand” is submitted in partial fulfilment for the requirements for the Unitec degree of Master of Osteopathy.

CANDIDATE’S DECLARATION

I confirm that:

- This Thesis/Dissertation/Research Project represents my own work;
- 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: 2010-1119

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Identification, assessment and management of somatisation in clients of osteopathic practitioners in New Zealand

Hong Yuel (Dominic) You

A research project submitted in partial requirement for the degree of Master of Osteopathy, UNITEC Institute of Technology, 2011
Abstract

**Background:** Somatisation has a high prevalence in all cultures, and can lead to disability and become a socioeconomic problem. In an osteopathic clinical environment, identification and management of somatisation could be important for an osteopathic practitioner as the physical manifestations of somatisation include pain and neurological symptoms, which are common symptoms in patients who seek osteopathic treatment. Furthermore, iatrogenic factors may also contribute to the maintenance and exacerbation of somatisation.

**Objectives:** The aims of this study are to explore and describe:

a) How osteopaths in New Zealand identify, assess, and manage somatisation in clients, and their attitudes toward the management of somatisation.

b) The kinds of previous education osteopathic practitioners have in relation to somatisation, and their attitudes toward further education related to somatisation.

**Methods:** The present study used a descriptive/explorative survey design and combined quantitative and qualitative methods for data collection and analyses. A total number of 230 New Zealand registered osteopaths who are the members of both New Zealand osteopathic societies were invited to complete the online survey questionnaire. Descriptive and inferential analytical techniques were used for the quantitative data while descriptive and thematic analysis techniques were used for the qualitative data.

**Results:** Out of the 230 osteopaths invited to participate in the study, 40 (17%) completed the survey. The most common assessment tool/method used was tissue palpation followed by verbal communication, cranial rhythm, and standardised assessment tools. The majority of respondents (80%) believe that osteopathy helps clients with somatisation, and agree that they would manage somatisation in their clients in the course of providing osteopathic treatment. Almost half of the respondents (46%), however, reported that it is ‘considerably’ or ‘a great deal’ difficult to manage clients with somatisation. The majority of respondents felt that they did not have sufficient education on how to manage clients with somatisation, and 75% of respondents reported that further education about somatisation would be valuable for their practice.

**Conclusion:** Majority of respondents reported that they encounter clients with somatisation frequently. However, they feel that they have difficulties in managing these clients. Considering a high prevalence of somatisation in clients with musculoskeletal problems and the possible iatrogenic factors that can arise from a practitioner’s lack of knowledge, it is suggested that osteopathic
education providers further investigate incorporating learning material on the topic of somatisation into the osteopathic training programme.
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# Table of contents

**Abstract**  
ii  
**Acknowledgements**  
iv  
**Chapter One – Introduction**  
1  
 1.1 Introduction  
1  
 1.2 Background  
2  
 1.2.1 History and concept of somatisation  
2  
 1.2.2 Prevalence of somatisation  
3  
 1.3 Aims of this study  
4  
 1.4 An overview of the chapters to follow  
4  
**Chapter Two: Literature Review**  
5  
 2.1 Introduction  
5  
 2.2 Classifications in relation to somatisation  
5  
 2.3 Multi-dimensions in aetiology of somatisation  
7  
 2.3.1 Predisposing factors  
7  
 2.3.2 Genetic and developmental factors  
7  
 2.3.3 Cultural factors  
8  
 2.3.4 Physiological factors  
8  
 2.3.5 Iatrogenic factors  
9  
 2.4 Identification and assessment of somatisation  
9  
 2.4.1 Characters of clients with somatisation  
9  
 2.4.2 Identification of somatisation  
10  
 2.4.3 Assessment of somatisation  
10  
 2.5 Comorbidity  
11  
 2.5.1 Somatisation and psychiatric conditions  
11  
 2.5.2 Somatisation and non-psychiatric conditions  
11  
 2.6 Management of somatisation  
12  
 2.6.1 The biopsychosocial view of illness and treatment  
12  
 2.6.2 Cognitive behaviour therapy for somatisation  
13  
 2.6.3 Pharmacological therapy for somatisation  
13  
 2.6.4 Complementary therapy for somatisation  
14  
 2.6.5 Manual therapy and somatisation  
15
2.6.6 Osteopathy and somatisation 16
2.7 Chapter summary 16

Chapter Three: Methodology and Method 18
3.1 Introduction 18
3.2 Methodology 18
  3.2.1 Study design 18
  3.2.2 Rationale of combining of quantitative and qualitative methods 18
3.3 Sampling 19
  3.3.1 Sampling frame 19
  3.3.2 Sample size 20
3.4 Method for data collection 20
  3.4.1 Surveys 20
  3.4.2 Internet surveys 21
  3.4.3 Survey questionnaire 21
  3.4.4 Pilot study 22
  3.4.5 Data collection 23
3.5 Data analysis 23
  3.5.1 Quantitative data analysis 24
  3.5.2 Qualitative data analysis 25
3.6 Ethical issues 26
  3.6.1 Participation and implied consent 26
  3.6.2 Anonymity and confidentiality 26
  3.6.3 Withdrawal from the study 27
  3.6.4 Storage and destruction of study materials 27
  3.6.5 Distribution of findings 27
3.7 Chapter summary 27

Chapter Four: Results 28
4.1 Introduction 28
4.2 Demographic data analysis 28
  4.2.1 Participation rate and gender 28
  4.2.2 Years in osteopathic practice 28
  4.2.3 Country and institute of education 29
  4.2.4 Qualifications/education in the field of mental health care 30
  4.2.5 Region of practice in New Zealand 30
4.3 Assessment 30
<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.3.1 Identification of somatisation</td>
<td>30</td>
</tr>
<tr>
<td>4.3.2 Influence of identified/suspected somatisation on assessment</td>
<td>31</td>
</tr>
<tr>
<td>4.3.3 Assessment of somatisation</td>
<td>31</td>
</tr>
<tr>
<td>4.3.4 Use of specific osteopathic/manual diagnostic tools for the clients with somatisation</td>
<td>32</td>
</tr>
<tr>
<td>4.4 Management of somatisation</td>
<td>33</td>
</tr>
<tr>
<td>4.4.1 Reported frequency of clients with somatisation</td>
<td>33</td>
</tr>
<tr>
<td>4.4.2 Reported frequency of management</td>
<td>34</td>
</tr>
<tr>
<td>4.4.3 Adoption of treatment approaches</td>
<td>34</td>
</tr>
<tr>
<td>4.4.4 Adapting treatment approach</td>
<td>34</td>
</tr>
<tr>
<td>4.4.5 Advice given to clients</td>
<td>34</td>
</tr>
<tr>
<td>4.4.6 Practitioner beliefs in the efficacy of osteopathic treatment in dealing with clients with somatisation</td>
<td>35</td>
</tr>
<tr>
<td>4.4.7 Referring clients to other programmes/practitioners</td>
<td>35</td>
</tr>
<tr>
<td>4.4.8 Difficulties in managing clients with somatisation</td>
<td>36</td>
</tr>
<tr>
<td>4.5 Education with regard to somatisation</td>
<td>37</td>
</tr>
<tr>
<td>4.5.1 Previous education</td>
<td>37</td>
</tr>
<tr>
<td>4.5.2 Qualifications and work experience in the field of mental health</td>
<td>38</td>
</tr>
<tr>
<td>4.5.3 Further education</td>
<td>38</td>
</tr>
<tr>
<td>4.6 Inferential analyses</td>
<td>38</td>
</tr>
<tr>
<td>4.6.1 Consideration given to identification</td>
<td>38</td>
</tr>
<tr>
<td>4.6.2 Influence on the way of assessment</td>
<td>39</td>
</tr>
<tr>
<td>4.6.3 Adaptation of treatment approaches</td>
<td>40</td>
</tr>
<tr>
<td>4.6.4 Reported difficulty in management</td>
<td>40</td>
</tr>
<tr>
<td>4.7 Analysis of Qualitative Data</td>
<td>41</td>
</tr>
<tr>
<td>4.7.1 Descriptive analysis of qualitative data</td>
<td>41</td>
</tr>
<tr>
<td>4.7.2 Thematic analysis</td>
<td>47</td>
</tr>
<tr>
<td>4.8 Chapter Summary</td>
<td>48</td>
</tr>
</tbody>
</table>

**Chapter Five: Discussion and Thematic Analysis**

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.1 Introduction</td>
<td>49</td>
</tr>
<tr>
<td>5.2 Identification of somatisation in clients</td>
<td>49</td>
</tr>
<tr>
<td>5.3 Assessment of somatisation</td>
<td>50</td>
</tr>
<tr>
<td>5.3.1 Tissue palpation</td>
<td>50</td>
</tr>
<tr>
<td>5.3.2 Communication</td>
<td>51</td>
</tr>
<tr>
<td>5.3.3 Cranial rhythm</td>
<td>51</td>
</tr>
</tbody>
</table>
5.3.4 Standardised assessment tools 52
5.3.5 Reported frequency of patients with somatisation 53
5.4 Management of somatisation in clients 53
  5.4.1 Physical strategy 54
  5.4.2 Cognitive behavioural strategy 55
  5.4.3 Advice given 56
  5.4.4 Referral 56
5.5 Education with regard to somatisation 57
  5.5.1 Previous education 57
  5.5.2 Further education 58
5.6 The thematic analysis: practitioners’ attitudes toward somatisation 59
  5.6.1 Integration 59
  5.6.2 Isolation 62
5.7 Chapter Summary 64

Chapter Six – Conclusion 65
  6.1 Introduction 65
  6.2 Implications for osteopathic practitioners 65
  6.3 Implications for the osteopathic profession 66
  6.4 Implications for education providers 66
  6.5 Limitations of the study 67
  6.6 Suggestions for further research 67
  6.7 Chapter Summary 68

Reference 69
Appendix 77
  Appendix A: Information e-mail 77
  Appendix B: Questionnaire 79
  Appendix C: Approval letter from Ethics Committee 90
List of Tables and Figures

Table 4.1: Years in osteopathic practice of respondents  
29

Table 4.2: Institute/School of Education of Respondents  
29

Figure 4.1: The frequency of cases in which respondents feel the need to identify somatisation in clients  
30

Figure 4.2: The consideration given by the respondents to the identification of Somatisation disorders  
31

Figure 4.3: Standardised assessment tools used for somatisation as reported by respondents  
32

Figure 4.4: Osteopathic/manual screening tools for somatisation as reported by respondents  
33

Figure 4.5: Frequency of clients with somatisation as reported by respondents  
33

Figure 4.6: Advice given by respondents to clients with somatisation  
35

Figure 4.7: Practitioner beliefs in the efficacy of osteopathic treatment in dealing with clients with somatisation  
35

Figure 4.8: Referral of clients by respondents to other practitioners/programme  
36

Figure 4.9: Perceived level of difficulty in managing clients with somatisation as reported by respondents  
36

Figure 4.10: Perceived amount of specific education during osteopathic training course in relation to somatisation reported by respondents  
37

Table 4.3: Cross tabulation of practitioner’s years in practice (vs.) consideration given to identification of somatisation  
39

Table 4.4: Cross tabulation of qualification/education in mental health field (vs.) influence on way of assessment  
40

Table 4.5: Cross tabulation of practitioner’s years in practice (vs.) perceived level of difficulty in management of clients with somatisation  
41

Table 4.6: Major themes and subthemes in respondents’ attitude toward somatisation  
47
Chapter One – Introduction

1.1 Introduction

Since the term “somatisation” was first used in 1925 by Van Teslaar, various definitions and concepts have been introduced (Rosendal, Fink, Bro, & Olesen, 2005). Despite the many different views on somatisation, one common element maintained is that it is made up of various physical symptoms which are not well explained by physical evidences (Gucht & Maes, 2006). Epidemiologic studies show that somatic symptoms that are not explained by conventionally defined diseases have a very high prevalence, 15-50 per cent, in primary care attendees in the general population of all cultures (Ring, Dowrick, Humphris, Davies, & Salmon, 2005).

Somatisation is considered to be an important clinical phenomenon because chronic forms of somatisation lead to disability and also create a socioeconomic problem. The patients in question visit health care practitioners frequently and often need repeated medical investigation for their symptoms (Gucht & Fischler, 2002). In the clinical environment, health professionals face a challenging problem when considering the classification and clinical management of widespread musculoskeletal pain and related nonspecific somatic distress. This is even more so for osteopathic practitioners because the physical manifestations of somatisation include pain and neurological symptoms, which are common symptoms in patients who seek osteopathic treatment. In osteopathic practice, the distinction between physical and non-physical sources for the client's symptoms is important in order to provide optimal care (Chaitow & DeLany, 2008). Biomedical approaches aimed at alleviating physical symptoms alone may achieve limited success in treating clients whose physical symptoms result from non-physical origins. Furthermore, iatrogenic factors such as health practitioners’ over-investigation, misdiagnosis, or unhelpful treatment or attitude can also contribute to the maintenance and exacerbations of somatisation (Henningsen, Zipfel, & Herzog, 2007; Kouyanou, Pither, Rabe-Hesketh, & Wessely, 1998).

Previous research in the New Zealand osteopathic setting has examined the identification, assessment and management of psychosocial stress (Nasrallah, 2003) and mood disorders (Sampath, 2008), but no osteopathic research in New Zealand has explored the identification, assessment and management of physical manifestations of symptoms that may be more related to psychological, social and behavioural contributing factors than to biomedical causes. This study is both descriptive and exploratory, and aims to describe and explore how osteopaths in New Zealand identify, assess and manage somatisation in clients and to explore their attitudes and views in relation to the methods described. Another aim of this research is to explore the level of specific education that osteopaths receive on somatisation, as well as osteopathic practitioners’ attitudes to further education with regard to somatisation.
1.2 Background

1.2.1 History and concept of somatisation

Somatisation is the translated term from German “Organsprache” first used in 1925. The original meaning of somatisation (Organsprache), was “the transduction of a psychological conflict into bodily symptoms” (Rosendal, Fink et al., 2005, p. 5). However, the history of physical symptoms with unclear causes is long. Such symptoms were first studied and named “hysteria” by Briquet at the end of the nineteenth century (Rosendal, Fink et al., 2005). The term “hysteria” originated from the Greek “hystera” (uterus), as ancient Greeks believed that various physical and emotional symptoms in women happened when the uterus wandered the body in search of a child. Hippocrates recommended marriage as a remedy for such symptoms (Carlson & Buskist, 1997).

In the early twentieth century, Freud classed somatic symptoms with unclear physical causes into two different phenomena; “conversion hysteria (a psychoneurosis)”, arising from a psychic origin and “neurasthenia” arising from a somatic origin (Gucht & Fischler, 2002, p. 2).

Freud’s concepts of somatisation have developed in two ways. One representative example of this “presenting somatisation” and “functional somatisation”, was conceptualised by Kirmayer and Robbins (as cited in Gucht & Fischler, 2002). According to Gucht and Fischler (2002, p. 3), Kirmayer and Robbins view somatisation as two different clinical phenomena; they define presenting somatisation as “The predominantly or exclusively somatic presentation of psychiatric disorder, most commonly depression and anxiety”, which they found originated from psychological conflicts. In contrast, they define functional somatisation as “High levels of medically unexplained symptom reporting in multiple physiological systems.” Here, the focus is on various physical symptoms that could not be explained by any known medical conditions.

The classification of ‘somatoform disorders’ in The American Psychiatric Association’s Diagnostic and Statistic Manual of Mental Disorders (DSM-IV-TR; 2000), and the International Classification of Diseases (ICD-10; World Health Organization, 1992), are based on ‘functional somatisation’. The diagnostic criteria therefore exclude psychological disorders such as depression or anxiety disorder. Somatoform disorders are defined in DSM-IV-TR as:

- the presence of physical symptoms that suggest a general medical condition (hence, the term somatoform) and are not fully explained by a general medical condition, by the direct effects of a substance, or by another mental disorder (e.g., Panic Disorder). The symptoms must
cause clinically significant distress or impairment in social, occupational, or other areas of functioning. (p. 485)

Despite researchers’ efforts to develop a clearer concept of somatisation and the many reports and writings related to somatisation, it remains an unclear and complicated concept. Gucht and Fischler (2002) note that the reason for this is the complicated relationship between psychological and somatic distress and the difficulty in being able to separate them clearly within the existing concepts of disease.

The definition of somatisation in ‘functional somatisation’ is used synonymously with the terms ‘medically unexplained symptoms’ and ‘functional somatic symptoms’ (Rosendal, Bro et al., 2005), and to avoid the confusion arising from the concept of somatisation, many researchers use the term ‘medically unexplained symptoms’ as an alternative (Burton, 2003).

The widely used and broad definition of somatisation is: “The tendency to experience and communicate somatic distress and symptoms unaccounted for by pathological findings, to attribute them to physical illness, and to seek medical help for them.” (Lipowski, 1988, p. 1359).

This study defines the concept of somatisation as ‘A phenomenon in which the client’s physical symptoms are not clearly explained by known or investigated pathophysiology and which probably have a very strong psychosocial genesis’. The grounds for the definition are the aforementioned ‘functional somatisation’, the high prevalence of psychological distress in clients with musculoskeletal problems (Jorgensen, Fink, & Olesen, 2000), and the psychosocial factors in clients explored routinely in osteopathic treatment (Lucas, 2005).

1.2.2 Prevalence of somatisation

Medically unexplained physical symptoms are common and frequent in all cultures, with 15-50 per cent prevalence among primary care attendees depending on different criteria (Ring et al., 2005). Further, one researcher in Denmark showed that 60 per cent of patients who attend a general practice have more than one medically unexplained physical symptom (Fink, Sorensen, Engberg, Holm, & Munk-Jorgensen, 1999).

However, when the prevalence of somatisation is considered in practice, it is more reasonable to consider ruling out the physical symptoms caused by physical pathology because the physical symptoms that can be explained by clinical findings are limited (Fink, Rosendal, & Olesen, 2005). For instance, research conducted in the USA that aimed to find out what accounted for the 14 most frequent physical symptoms in primary care patients, found that physical disease accounted for 16 per cent of physical symptoms, possible psychological causes accounted for about 10 per cent of physical symptoms, whereas unknown factors accounted for 74 per cent (Kroenke & Mangelsdorff, 1989).
Although no research into the prevalence of somatisation in an osteopathic clinic setting has been found, it is concluded that a substantial number of clients who visit an osteopathic clinic have some degree of somatisation given the results of a number of studies. One study demonstrates that the main characteristic of somatisation symptoms is complaints including back pain, joint or limb pain, weakness, fatigue, chest pain and headache (K. Kroenke et al., 1994), which are common symptoms of clients who seek osteopathic treatment. Another study shows that psychological distress is more common in patients with musculoskeletal problems than in a population of consecutive general practice patients (Jorgensen et al., 2000).

1.3 Aims of this study

The aims of this study are to explore and describe:

a) How osteopaths in New Zealand identify, assess, and manage somatisation in clients.

b) New Zealand osteopaths’ attitudes toward the management of somatisation.

c) The kinds of previous education osteopathic practitioners have that is specifically somatisation related in terms of psychological, social, and behavioural variables in health and illness.

d) New Zealand osteopaths’ attitudes toward further education related to somatisation.

1.4 An overview of the chapters to follow

This thesis is presented in six chapters. Chapter two reviews literature related to somatisation; classification, multiple dimensions in aetiology, clinical features and assessment of somatisation. Chapter two also reviews the management approaches for somatisation adopted by different health disciplines. Chapter three describes the research design, the methods of data collection and analysis used and the ethical issues involved in this study. Chapter four presents the findings of this study. In Chapter five, the findings from the quantitative and qualitative data obtained in this study are discussed in light of the literature reviewed in Chapter two and selected relevant emerging literature. Chapter six presents the implications of this study for the osteopathic profession, the limitations of this study and suggestions for further research.
Chapter Two: Literature Review

2.1 Introduction

This literature review discussed the classification, aetiology, and clinical manifestations of somatisation followed by identification and assessment. It then discusses the relationship between somatisation and a number of physical/mental conditions, and reviews the biopsychosocial view of illness and management of somatisation in different types of therapy.

The term “somatisation” has been described in various studies as “medically unexplained symptoms”, “functional disorder” or “functional somatic symptoms”, according to the particular backgrounds and views of the health professional/researcher for the same group of physical symptoms (Rosendal, Bro et al., 2005). The classification of “somatoform disorders” in the ICD-10 and DSM-IV includes most somatising conditions (Fink, Rosendal, & Toft, 2002). Therefore, the afore-mentioned terms are included and used interchangeably in this literature review to reflect a comprehensive approach to the study of somatisation.

2.2 Classifications in relation to somatisation

According to De Gucht and Maes (2006), the term ”somatisation” has been defined in a variety of ways:

(1) as the somatic expression of a psychiatric disorder; (2) as a distinct diagnostic category, called somatisation disorder, defined by multiple somatic symptoms of various organ systems, and (3) as referring to functional somatic syndromes, characterised by the specific groups of somatic symptoms. (p. 349)

One common element from the different terminologies shows that “the presence of somatic symptoms cannot be adequately explained by organic findings, called medically unexplained symptoms, or functional somatic symptoms” (De Gucht & Maes, 2006, p. 349). These widespread musculoskeletal pain and nonspecific somatic distress are difficult issues for healthcare professionals in classification and clinical management of patients (McFarlane, Ellis, Barton, Browne, & Hooff, 2008).

The following classifications are frequently used in research or in articles in relation to somatisation.

Somatoform disorders: DSM- IV (American Psychiatric Association, 2000) classifies the physical symptoms for which a conventional pathology cannot be identified as the diagnostic group ‘somatoform disorders’. DSM-IV, defines somatoform disorders as the physical symptoms that are
not fully explainable by a medical condition, or by effects of any substance or any other mental disorder.

Numerous experts have, however, argued different points regarding somatoform disorders being classified as mental disorders in DSM-IV. The psychological factors are expected to have an important role in its onset, severity, exacerbation or maintenance (Lieb et al., 2002). Medically unexplained symptoms are also commonly associated with mental health issues such as anxiety and depression (Löwe et al., 2008). On the other hand, Sykes (2006) points out that if the physical cause of a disorder is unknown this does not necessarily mean that the disorder is caused by psychological factors, the cause of disorder has yet to be discovered by current medical science. Thus, Sykes raises a question “whether the disorders that DSM-IV lists as mental disorders are appropriately listed, or whether it would be more appropriate to list them as physical disorders, or, in the language of DSM-IV, as general medical conditions” (p. 341).

The somatoform disorders category in DSM-IV includes somatisation disorder, conversion disorder, pain disorder, hypochondriasis and body dysmorphic disorder (American Psychiatric Association, 2000).

Somatisation disorder: A subgroup of somatoform disorders in DSM-IV classification. Somatisation disorder is chronic and involved with at least four unexplained pain symptoms, two unexplained gastrointestinal symptoms, one unexplained sexual symptom, and one pseudoneurological symptom for which there is currently inadequate or no physical evidence. The first episode is likely to occur before the patient is 30 years old (American Psychiatric Association, 2000).

According to Garcia-Campayo et al. (2007), somatisation disorder is a prototype disorder in the somatoform disorders category and refers to the “most valid, reliable, and stable-over-time disorder from the whole group of somatoform disorders”.

Abridged somatisation disorder: In DSM-IV, the criteria for the diagnosis of somatisation disorder is too strict and too complicated, as many somatisation patients do not meet the full somatisation disorder criteria in the clinical environment. Thus, Escobar (1977) proposes a looser criteria pertaining to a less severe form of somatisation disorder, Abridged somatization disorder (ASD). The diagnostic criteria is based on a patient’s recall of lifetime symptoms, and requires at least six unexplained symptoms in women and four in men.

Multisomatoform disorder: Because somatisation patients’ lifetime recall is often unstable and raises the issue of reliability, the diagnostic criteria based on patients’ lifetime recall is not accurate and effective (Dickinson et al., 2003). Therefore, Rost et al. (2006) suggested a new classification, ‘Multisomatoform disorder (MSD)’. MSD focuses on patients’ current suffering somatic symptoms.
The diagnostic criteria of MSD require that patients have more than three symptoms within two weeks before they visit the clinic.

In addition to the classifications outlined above, many other terms and diagnostic labels in relation to somatisation are in use such as fibromyalgia, irritable bowel syndrome, chronic fatigue syndrome, pelvic pain syndrome and non-cardiac chest pain depending on the different views and specialties of researchers and health care practitioners (Rief & Sharpe, 2004).

2.3 Multi-dimensions in aetiology of somatisation

Although the aetiology of somatisation is unknown, somatisation is agreed to have multi-factorial influences such as the biological, psychological, interpersonal, and social factors (Henningsen et al., 2007). The degree of impact from these factors can depend on an individual’s general vulnerability and coping strategies (Fink et al., 2005).

2.3.1 Predisposing factors

Some predisposing factors to somatisation include being female, pre-existing substance use, affective and anxiety disorders, and the experience of physical threat such as rape or sexual abuse. Other factors such as high social class or high educational level are negatively related to incidence of somatoform disorders (Lieb et al., 2002). Stress and strain caused by a significant life experience such as bereavement, loss of a job or physical disease are considered as unspecific precipitating factors of somatisation (Fink et al., 2005).

Although DSM-IV takes somatoform disorders as physical symptoms that are not fully explainable by any other mental disorder, the symptoms of somatisation seem to be related closely to depression or anxiety. In one study (Farooq et al., 1995) conducted in a primary care setting in the UK, 195 patients were interviewed using a somatisation scale (Bradford somatic inventory) and an anxiety and depression scale (Hospital anxiety and depression scale) respectively. The results showed a linear correlation between somatic complaints and the conditions of anxiety and depression.

2.3.2 Genetic and developmental factors

The results of a study carried out by Lembo et. al (as cited in Rief et al., 2010) showed concordance rates for increased somatic symptom scores of 30% for monozygotic twins compared to 17% in dizygotic twins. These researchers assert that this is evidence that polymorphisms of genes are in the serotonergic, dopaminergic and catecholaminergic systems, and that these play a role in functional somatic disorders and depression.

Another study showed that pain sensitivity of individuals varies and that this can be attributed to genetic aspects that contribute to pain perception (Nielsen & Stubhaug as cited in Rief et al., 2010).
On the other hand, it has been shown that family factors such as less cohesion and disorganisation may affect maladaptive illness behaviour and heighten the risk of somatic complaints for youth at different development levels (Terre & Ghiselli, 1997). A study by Waller, Scheidt and Hartmann (2004) investigated distribution of attachment patterns in patients with somatoform disorders and in a healthy control group. They assessed attachment of two groups with a semi-structured interview (Adult Attachment Interview). The results showed that there were more prevalent of insecure patterns of attachment in the patient group when compared with control subjects, suggesting an association between an insecure attachment and somatisation.

2.3.3 Cultural factors

Cultural differences also directly affect the prevalence of somatisation. A trans-cultural study that compared Asian and Caucasian patients showed that the differences in morbidity of somatisation amongst ethnic groups were greater than differences by educational attainment or employment status (Farooq et al., 1995).

Hobara (2005) investigated the differences in beliefs about the social acceptability of pain behaviours between two groups of participants. One group was Japanese participants living in Japan and the other group was Euro-American participants living in the USA. The results of the study showed that Japanese participants were less accepting of overt pain expression than the Euro-American participants. Female participants in both groups were more accepting of overt pain-related behaviours than male participants. Hobara (2005) interpreted the results in terms of cultural traditions and social roles, and stated that both have clear implications for clinical treatment and diagnosis (p. 389). Hobara argued that “It is important for health professionals to be aware of how patients of different sex and cultural backgrounds experience and express pain” (p. 392).

2.3.4 Physiological factors

Certain factors that sustain functional somatic syndromes are often regarded as significant, particularly in cases of central nervous system (CNS) sensitisation disorders where there is an over-reaction to stimuli (Henningsen et al., 2007). In this regard, Dantzer (2005) noted the following:

Somatization might be nothing else [other] than the outward manifestation of sensitization of the brain cytokine system that is normally activated in response to activation of the innate immune system and mediates the subjective, behavioural and physiological components of sickness. (p. 948)
In development of pain symptoms or depression, several biological systems, especially serotonergic pathways, are considered to play a role, as they are involved in the interaction of somatosensory stimulation, sensory perception, and attenuation of perception processes (Rief et al., 2010).

Dantzer (2005) noted that if some factors of sickness are disproportionate to sickness intensity, sickness becomes abnormal or pathological; the same thing happens if sickness arises without any immune triggering stimulus.

2.3.5 Iatrogenic factors

According to Henningsen et al. (2007), a physician may contribute to the continuation and exacerbations of somatoform disorder. Henningsen et al. stated that, “patients with so-called unexplained symptoms often voice psychosocial clues that are not taken up by their doctors” (p. 948). While inadequate medical explanations can be associated with medically unexplained symptoms, there are also possible iatrogenic factors such as “over-investigation, over or unhelpful treatment, inappropriate prescribing, misdiagnosis as well as health care providers’ unhelpful advice and attitude” (Kouyanou et al., 1998, p. 142). One study showed that one-third or sometimes two-thirds of patients attending general medical clinics reported that they did not receive a biomedical justification for the symptoms that they were reporting (Nimnuan, Hotopf, & Wessely, 2001). According to Fink et al. (2005), if any diagnosis for the patients with functional somatic symptoms is missed or delayed, it may hinder an appropriate and effective treatment.

2.4 Identification and assessment of somatisation

2.4.1 Characters of clients with somatisation

The patient experiencing somatisation often presents with complaints of vague pain that often show poor treatment outcomes. Complaints of vague pain may include back pain, joint or limb pain, weakness, fatigue, chest pain, headache (K. Kroenke et al., 1994). Such patients may come to be seen by healthcare professionals as using up valuable resources because they are often associated with an increase in general practice visits and medical investigations (Dohrenwend & Skillings, 2009).

Rief and Sharpe (2004) summarised the clinical features of somatoform disorders as follows:

- The patient suffers from physical symptoms that are not sufficiently explained as a medical condition
- A tendency to misinterpret bodily perceptions as signs of threatening diseases and an inability to tolerate somatic sensations
Selective attention to physical process/complaints and seeking excessive medical help (abnormal illness behaviour)

The condition should be persistent and associated with distress and/or disability. (p. 388)

Somatoform disorders have high rates of psychiatric morbidity (Kouyanou et al., 1998), and psychological distress commonly amplifies the physical symptoms of somatisation (Dohrenwend & Skillings, 2009). However, assumed organic causes of somatic complaints seem to be important in its relevance for illness behaviour (Sykes, 2006). Dohrenbusch et al. (2008) state that care should be taken if presuming cognitive or memory dysfunctions may be solely the result of cognitive impairments when in fact illness behaviour may also play a significant part.

Somatoform disorders and syndromes are widespread among adolescents and young adults and their conditions are relatively stable and enduring (Lieb et al., 2002).

2.4.2 Identification of somatisation

According to Brodine and Hartshorn (2004), the hallmarks of somatisation symptoms such as in somatoform disorders are organic symptoms that are inconsistent with physical findings, history of a precipitating event after which the symptoms began, and unintentional symptoms. Brodine and Hartshorn emphasised that the first step to recognising somatisation is the exclusion of all general medical conditions that could fully account for the physical symptoms. When pain is the chief complaint, all the causes of somatic and neuropathic pain must be ruled out. The next step to take in the process is the identification of the common features of patients with somatisation.

2.4.3 Assessment of somatisation

Measures to identify and monitor somatic symptoms are important if researchers are to study somatisation and clinicians are to evaluate and manage it (K. Kroenke, Spitzer, & Williams, 2002). In a systematic review of 116 studies that were specific to the use of somatisation in the field of pain research, most of the studies (88%) used questionnaires to determine the number and intensity of somatic symptoms. Other methods included a structured interview, diagnostic criteria and a combination of measures (Crombez et al., 2009).

Some studies have shown that a brief, self-administered questionnaire such as the Patient Health Questionnaire somatic symptom severity scale (PHQ-15; K. Kroenke et al., 2002) and the Four-Dimensional Symptom Questionnaire (4DSQ; Terluin et al., 2006) are useful in screening for somatisation and in monitoring somatic symptom severity in clinical practice and research.
Some researchers however, have questioned the reliability of self-reported questionnaires as the results do not have standard criteria. For example, somatisation scores that are only based on self-reported somatic complaints can capture a large amount of variance that is not relevant to the somatisation (Crombez et al., 2009).

In addition, overall management that is generally based on too many generalisation has led to unsuccessful management of wide-ranging somatoform disorders (Dohrenwend & Skillings, 2009).

Suprina (2003) argued that it is necessary to fully evaluate a patient’s physical, mental and social contributing factors to understand the determinants of a disease and treat a patient accordingly.

2.5 Comorbidity

2.5.1 Somatisation and psychiatric conditions

Many studies (Löwe et al., 2008; Garcia Campayo et al., 2007; Bass & Murphy, 1995) show the high prevalence of psychiatric morbidity in patients with somatisation disorder. In one study (Löwe et al., 2008), over half of patients with somatoform disorders have comorbid anxiety or depressive disorders, whereas depression, anxiety and somatisation are highly inter-correlated. “One syndrome might act as a risk factor for the development of the other syndromes” and “all areas of functional impairment are more strongly associated with the commonalities of depression, anxiety and somatisation than by their independent contributions” (Löwe et al., 2008, p. 196).

Another study has shown that there is a high comorbidity rate of personality disorders in patients with somatisation disorder when compared with a control group who diagnosed with mood or anxiety disorders (Garcia Campayo et al., 2007). The correlation between personality disorders and somatisation disorders was often found early in the history of the patient and was also often severe (Bass & Murphy, 1995).

2.5.2 Somatisation and non-psychiatric conditions

In a multinominal analysis with young adult subjects, there was marked association between psychological distress and somatisation symptoms, and asthma symptoms in both genders (Rona, Smeeton, Amigo, & Vargas, 2007). Rona et al. state the likely reasons for these associations could have been that either a common factor is associated with psychological symptoms and asthma, or that psychological distress in its many forms are part of the cycle leading to asthma.

A study by Yap et al. (2002) showed that a considerable number of patients with temporomandibular joint (TMJ) dysfunction were clinically depressed and had elevated degrees of non-specific physical symptoms. The results suggested that psychological conditions, such as depression, have been used to explain why some patients with TMJ dysfunction do not respond to conventional therapy.
Chaturvedi and Maguire (1998) demonstrated that somatisation can manifest in cancer patients, and that psychiatric treatment can help to reduce the somatic and depressive symptoms.

2.6 Management of somatisation

Somatisation, functional somatic symptoms are difficult to treat with poor response to the treatments, and often persistent (Allen et al., 2001). As the aetiology of functional somatic symptoms is unknown, there is no absolute treatment protocol for these symptoms. Some approaches to the management of somatisation include cognitive behaviour therapy (CBT), pharmacological therapy, and manual therapy including osteopathic treatments. However, the views and attitudes of the practitioners may influence the outcome of the management. Hatcher and Arroll (2008) emphasise that practitioners should encourage patients with somatisation through appropriate and clear explanations, integrating physical and psychological aspects. They recommend to avoid blaming the patient but rather, that the health care practitioner provide an opportunity for the patient to self manage so that they might better cope with the fear that their symptoms might indicate a serious disease.

2.6.1 The biopsychosocial view of illness and treatment

In a conventional biomedical mode, physical symptoms are often interpreted within limits, which define disease in terms of somatic parameters. However, the phenomenon of somatisation lies outside these boundaries (Rosendal, Fink et al., 2005).

To overcome the limits of the existing biomedical models, Engel (1977) developed his biopsychosocial model, and has argued that “The boundaries between health and disease, between well and sick, are far from clear and never will be clear, for they are diffused by cultural, social, and psychological considerations” (p. 132).

Linton (2005) conducted a cross-sectional and prospective analysis of psychological factors and their involvement in back pain, and found that psychological variables, in particular emotions such as depression, anxiety and distress can cause pain and disability, particularly back pain. Linton (2005) concluded that the results underscore the need for a multidimensional view of the development of pain disability.

Vedsted et al. (2004) found an association between the frequency of visits to general practice clinics and lower physical and mental health. The patients who visit general practice clinics more frequently displayed poorer social functioning, status and conditions when compared with non-frequent attendants. In addition, identified loneliness of the patients is an important aspect in the frequency of attendance at general practice clinics.
Bensing (2006) emphasises the need for a comprehensive biopsychosocial approach from the start of treatment for the medically unexplained symptoms. The approach jointly combines a biomedical track and a psychosocial track to give patients confidence that their biomedical needs are rightly addressed. This approach also opens the floor for discussing the psychosocial issue at the same time (Bensing, 2006).

2.6.2 Cognitive behaviour therapy for somatisation

The findings of a preliminary investigation conducted by Allen et al. (2001) suggests that CBT that includes training of relaxation, activity regulation, cognitive restructuring, sleep hygiene and communication produces positive and lasting results in patients with somatisation disorders. The CBT, consisting of ten weekly sessions designed for patients with somatisation, was conducted at the psychiatry department of a medical school and the results are clinically significant in reducing physical discomfort and the disability of patients. Bleichhardt et al. (2004) conducted a study using CBT that was specifically designed to target somatisation and compared it to a general CBT. The CBT with an additional group-treatment module for multiple somatisation symptoms showed larger outcome effects compared to CBT with a general group-relaxation training at one-year follow-up. Another study showed strong evidence that multidisciplinary treatment that combined education, CBT, or both with exercise was effective in treating fibromyalgia syndrome (Goldenberg, Burckhardt, & Crofford, 2004). These results indicate that CBT is effective in the management of functional somatic symptoms both as a single therapy and when combined with other approaches.

In an exploratory study by Walker et al. (1999), patients with somatoform disorders had a strong preference for psychological treatment despite being more commonly given prescriptions by GP’s than being referred to psychological treatment for these disorders.

2.6.3 Pharmacological therapy for somatisation

According to Fallon (2004), there are two different types of somatoform disorders: 1) a main symptom that is an unrealistic fear or belief, 2) a symptom that is unexplained somatic complaints. These two types indicate different disorders that may in fact have different pathophysiology and so suggest that treatment for one of the types of somatoform disorder may not be applicable to the other. Fallon reviewed the published literature (1970 to 2003) about the pharmacologic management of somatoform disorders, and noted that somatoform disorders incorporating an unrealistic fear or belief responded well to serotonin reuptake inhibitors, but less is known about the pharmacologic responsiveness of somatoform disorders with unexplained somatic complaints.

A randomized placebo-controlled trial showed that opipramol (a tricyclic antidepressant) is an effective and safe treatment for somatoform disorders (Volz, Moller, Reimann, & Stoll, 2000).
Noyes et al. (1998) suggest that antidepressants may be useful for somatisation as they targets the symptoms of depression and anxiety that are often associated with somatisation. However, there was insufficient evidence between studies to make detailed recommendations on optimal drugs, doses or duration of treatment about antidepressants treatment for the patients with somatisation (Burton, 2003).

2.6.4 Complementary therapy for somatisation

Patients with medically unexplained symptoms are more likely to seek alternative treatment than patients whose symptoms can be medically explained and treated (Nimnuan et al., 2001). However, another study showed an apparent lack of association between complementary therapy (CT) users and different types of mental disorders (Nielsen, Hansen, & Fink, 2003). This indicates that use of CT may reflect the patients’ attitudes to life, health and self-care or towards the conventional health care system rather than only a personal response to a specific disease or disorder.

A study conducted by Garcia Campayo and Carrillo (2000) in Spain found that the most frequently used alternative medicine for patients with somatisation was acupuncture (15.3%), followed by homeopathy (10.7%), healers (9.2%), and reflexology (7.6%). This study also showed that the reasons stated for using alternative medicines were dissatisfaction with medical care (56.6%), dissatisfaction with diagnosis (36.6%), and a patients’ belief that the natural remedies are healthier than drugs (6.6%). More than half (60%) of the patients who used alternative medicines did not disclose this fact to their physician because they feared reprisals from their doctor in terms of the quality of care provided (Garcia Campayo & Carrillo, 2000).

Acupuncture

There is evidence of the advantages of acupuncture for patients with fibromyalgia syndrome (Goldenberg et al., 2004) and depression (John, Andrea, & Francisco, 2006). However, the intervention designed to specifically target depression resulted in no better outcome than those designed to serve as a control intervention (John et al., 2006). The results of a study conducted to assess the effect of acupuncture on pain perception and coping strategies while focusing on the psychological aspects of pain, indicated that acupuncture therapy might be efficient in changing patients’ pain perception and in enhancing their sense of personal control over their pain (Gamus, Meshulam-Atzmon, Pintov, & Jacoby, 2008).

In a study that investigated the therapeutic effects and safety of treating mild or moderate depression with somatic symptoms with electro-acupuncture, the results indicated that the treatment with both the electro-acupuncture and fluoxetine (serotonin reuptake inhibitor) had effects on symptoms in a shorter
time with fewer adverse reactions than the treatment with fluoxetine only (Duan, Tu, Chen, & Wu, 2009).

According to Samuels et al. (2008), the exact mechanism of acupuncture is unknown, but acupuncture can lead to accelerated synthesis and release of serotonin and noradrenalin in the central nervous system thus activating descending antinociceptive pathways and deactivation of multiple limbic areas sub-serving pain association.

2.6.5 Manual therapy and somatisation

One of the challenging situations clinicians face is to manage widespread unspecific musculoskeletal complaints of patients. It has been reported that the recovery rate is very low in such complaints when compared with other diagnosed specific symptoms (Keijsers, Feleus, Miedema, Koes, & Bierma-Zeinstra, 2010).

According to Suprina (2003, p. 185), holistic bodywork practitioners can provide an efficient and effective multidisciplinary biopsychosocial treatment using an integrated approach that utilises body, mind and spirit. In a qualitative study conducted by Pincus et al. (2006), most manual therapists including osteopaths, chiropractors and physiotherapists, viewed themselves as more than problem solvers whose role is to remove pain and decrease disability. Rather, they saw themselves as providers of treatment that incorporated health education, emotional support, counselling, and preventive care.

Although integrated methods are thought by manual therapists to be important, they seem to be seldom integrated into research trials conducted by manual therapists or by the practitioners into their management approaches (S. Walker, Bablis, Pollard, & McHardy, 2005). Pincus (as cited in Suprina, 2003, p. 189) argues that clinging to biomedical models is due to their simplicity, and that less effort and responsibility is required by patients, making it a more attractive option for both the patient and the therapist.

**Chiropractic**

A study conducted by Walker et al. (2005) showed that most Australian, New Zealand and North American chiropractors considered emotional factors important in patients presenting with pain. However, less than half of practitioners surveyed used any techniques to evaluate how emotions might impact on the presenting condition. Only one third of practitioners had a technique to treat emotional factors such as Neuro-Emotional Technique (NET).

Brockman (2007) showed that active chiropractic manipulation, in contrast to sham treatment, had a stronger and broader effect on promoting emotional well being that was measured through the use of
questionnaires (the perceived stress scale (Cohen S et al., 1983), the profile of mood states questionnaire (Matarazzo JD et al., 1984)). Brockman (2007) hypothesised that manual treatment was able to reduce muscle spasm and hypertonicity through eliciting a reflex response. These changes in muscle tone may be able to stop the cycle where emotional factors (tension, stress, anxiety) bring about pathological soft tissue states that alter normal biomechanical function.

2.6.6 Osteopathy and somatisation

Osteopathic philosophy holds that “the body is a unit; the person is a unit of body, mind and spirit” (Seffinger et al., 2003, p. 10) and emphasises holistic approaches in health care. Osteopathic medicine is supported by expanding scientific knowledge including the behavioural, chemical, physical and biological knowledge (Seffinger et al., 2003).

According to a study regarding the osteopathic concepts in an osteopathy school curriculum, members of the faculty of the osteopathic school considered that holistic osteopathic concepts distinguish osteopathy from other physical therapies and that the practical application of the osteopathic concepts is important (Nash & Tyreman, 2005).

A qualitative study conducted in the UK showed that osteopathic practice had a range of positive psychological effects on patients including reassurance, improved understanding, removal of fear, and a positive approach to the treatment (Westmoreland, Williams, Wilkinson, Wood, & Westmoreland, 2007). Another study provided evidence that spinal manipulation produced better psychological outcomes when compared with verbal interventions such as consistent advice from a physician with an educational booklet and encouragement to remain active (Williams et al., 2007).

One study conducted in the UK reported that patients with low back pain were more satisfied with the osteopathic treatment than treatment from a general practitioner (GP) even though patients visit GP more frequently (42%) than they visit osteopaths (5%) (Pincus, Vogel, Savage, & Newman, 2000).

Considering the multi-dimensional aspects that influence health and disease and the holistic concepts of osteopathy, it may be valuable to incorporate cognitive behavioural approaches into osteopathic practice and training as suggested by Williams (2007). However, when an osteopath considers integrating cognitive behavioural approaches into osteopathic practice, it is important for he or she clarify which psychosocial factors are contributing to the patient’s condition and which of those factors are remediable based on evidential knowledge (Lucas, 2005).

2.7 Chapter summary

This chapter reviewed literature related to somatisation; classification, multiple dimensions in aetiology, clinical features and assessment of somatisation. It also reviewed management approaches
for somatisation from different disciplines of health professions. The biopsychosocial view of illness and treatment in relation to how osteopaths identify, assess and manage somatisation was also presented and discussed. The main focus of this literature review is on an integrated approach, which includes physical, psychological and social factors that contribute to the patients’ somatisation symptoms in the process of identification, assessment and management of somatisation.

The methodology is introduced in the next chapter. Design and the rationale utilised in this study is presented. Further, the methodology explains the method used to collect and analyse the data as well as the ethical issues involved in this study.
Chapter Three: Methodology and Method

3.1 Introduction

This chapter introduces the research design, and the methods of collecting and analysing the data in this study. This study used mixed methods, combining quantitative and qualitative data. Thus, the ways in which the instruments were used for both quantitative and qualitative data collection are described. Then, the procedure of both quantitative and qualitative data analysis including the validity is outlined. This chapter will also explain the ethical issues involved in this study.

3.2 Methodology

3.2.1 Study design

The study adopted a descriptive/explorative survey design, utilising mixed methods which incorporated quantitative and qualitative ways of collecting and analysing data.

Descriptive study is designed to provide in-depth information about the characteristics of subjects or setting within a particular field of study. It describes what was found through exploring the phenomena in real-life situation (Houser, 2008). Thus, in a descriptive research, a researcher observes, counts, delineates, elucidates, and classifies to describe phenomena (Polit & Beck, 2010).

Exploratory study is similar to descriptive study but it has a key difference in that it is designed to explore a given phenomenon and generate new knowledge to inform findings (Houser, 2008, p. 188). Therefore, exploratory researchers do not simply observe and describe the findings, but investigate vigorously the full nature of the phenomenon, the situation in which it is manifested, and the other related factors including potential factors that might be causing it (Polit & Beck, 2010).

This study selected a descriptive/explorative design in order to find out and describe what methods osteopaths in New Zealand choose for identification, assessment and management of somatisation in clients and, furthermore, explore what kind of attitudes and views osteopaths in New Zealand have towards somatisation, and their clinical approaches for the clients with somatisation.

3.2.2 Rationale of combining of quantitative and qualitative methods

In their survey of preference of research methods, Simons and Lathlean (2010) found that use of the ‘mixed method’ is increasing in the health service. They argue that the main reason for this increase is due to the view that research methods need to reflect the increasing complexity of contemporary understandings of health and healthcare. This complexity is best explored by investigating multiple sources of knowledge and, thus, this is a reason why the mixed method approach is more appropriate than other methods (Forthofer as cited in Simons & Lathlean, 2010).
In a mixed method study, overall integration of the method types takes place at all phases of the project: development of research questions, data collection and analysis, and interpretation of results. Polit and Beck (2010) note that the advantages of qualitative and quantitative mixed method are complementarity, incrementality and enhanced validity, and they argue that the blending of data offers “the possibility of yielding more insightful understandings of the phenomenon under study”.

This study used close-ended questions to generate quantitative data for the description of clinical approaches of New Zealand osteopaths for the clients with somatisation and the attributes of demographic and educational variables of New Zealand osteopaths. In order to produce qualitative data, open-ended questions were used to explore and describe osteopaths’ views and attitudes toward somatisation in greater depth.

3.3 Sampling

3.3.1 Sampling frame

Sampling is defined as “the process of selecting a portion of the population to represent the entire population” (Polit & Beck, 2010, p. 567) and sampling frame as “the potential participants who meet the definition of the population and are accessible to the researcher” (Houser, 2008, p. 215). The sampling frame of this study is a list-based sampling that requires listed contact details of participants, such as e-mail addresses. This sampling is the most applicable to large homogeneous groups such as universities, government organisations, large corporations, for which a sampling frame with e-mail address can be assembled (Fricker, 2008).

The steps to take in the process of selecting sample frame for this study were followed as described by Polit and Beck (2010).

The first step was to decide which group the study would represent. Registered osteopaths in New Zealand who are currently practicing were decided in this study. The second step was to consider which population could be accessed for this study. Members of the Osteopathic Society of New Zealand (OSNZ) and International Society for Osteopathic Practice (ISOP) were chosen. The third step was to consider what resource could be accessed to contact them. One useful resource was the OSNZ and ISOP societies’ e-mail distribution link for their members. The final step was to consider who would be the participants in this study. The actual participants come from the osteopaths who voluntarily complete and return the survey questionnaire.

This study considered the following areas in the process of sampling.

Representativeness of sampling was considered in terms of number and the rate of the whole population of NZ osteopaths. The total number of OSNZ and ISOP members is 230 and this number
makes up 60% of the total number of osteopaths in New Zealand (The Osteopathic Council of New Zealand, 2009). These societies do not demand particular requirements such as specific treatment approach, attributes or educational background to be a member of OSNZ or ISOP. Therefore, the participants from these population groups can be deemed to be valid in representativeness of sampling.

Convenience/accessibility of sampling was next considered. As the researcher is a student member of both the OSNZ and the ISOP, the researcher asked both societies’ administration officers to distribute the survey questionnaire to their members. Thus, this study makes a feature of convenience sampling.

3.3.2 Sample size

This study utilises a quantitative and qualitative mixed method; accordingly, the sample size respected these two different elements.

According to Polit and Beck (2010), a guiding principle in sampling in qualitative research is data saturation, which means sampling is done to the point at which no new information is obtained until redundancy is achieved.

In quantitative research however, Houser (2008) points out that the considered sample size is based on the characteristics that require accuracy of results (e.g. low significant level), the number of subgroups to be compared and the heterogeneity of population.

In current study, the designed significance level for inferential analysis of data is not extraordinarily low (α=0.05) and the number of subgroups to be compared is not over two (e.g. gender, qualification in the mental health field). The population is considered to be fairly homogeneous because participants belong to the same osteopathic profession in New Zealand. However, a sample size less than 30 is not considered sufficient to allow for the changes from the investigating variables according to Houser (2008). Therefore, this study aimed to include 40 to 50 participants.

3.4 Method for data collection

3.4.1 Surveys

Taking into account Cohen, Manion and Morrison’s (2007) opinion that surveys can combine both descriptive and explorative approaches in research, this study used a survey for data collection.

A survey design has some strengths (Houser, 2008) as follows: (a) survey content is flexible and its scope is broad, (b) surveys are cost-effective methods for reaching large populations, (c) subjects have great sense of anonymity and may respond with more honesty, (d) questions are predetermined and standardised for all subjects, minimising researcher bias. With these strengths in mind, a questionnaire was designed to gather both quantitative and qualitative data.
Some disadvantages associated with a survey instrument include that collected information may be superficial and limited to standard responses (Houser, 2008). To overcome this weakness, this study employed both close-ended and open-ended questions. Close-ended questions were initially used to establish a general outline of participants’ clinical approaches for clients with somatisation. Open-ended questions were then used with the aim of drawing out a more in-depth discussion on the complex topic of ‘somatisation’.

3.4.2 Internet surveys

A survey questionnaire was administered by a web-based mode of delivery through the internet service/web “survey monkey”™ (http://www.surveymonkey.com/). The advantages of an online survey over traditional paper-and-pencil survey are considered by Vehovar and Manfreda (2008) to include reduced time, costs and errors that the transcription of paper questionnaires may afford. They further note that answers collected from the respondents are immediately stored in a computer database and ready for further processing and; that online surveys offer advanced features such as question skips and filters, randomisation of answers, and control of answer validity along with multimedia elements. The online survey service/web “survey monkey”™ has some such features including formatting the survey, collection and analysis of responses.

3.4.3 Survey questionnaire

The survey questionnaire (see Appendix B) was developed and administered electronically to the potential participants.

In constructing the questionnaire, two important principles as stated by Thomas and Nelson (2005, p. 271): “What specific objective this question is measuring” and “How it is going to be analysed” were considered.

Another practical consideration in construction of the questionnaire was to follow the guidelines suggested by Houser (2008):

- Keep the question simple, clear, and easy to answer and keep the overall survey short
- Know how each question will be analysed
- Group similar question together and avoid questions that ask about more than one characteristic or dimension
- Provide a well-written cover letter with explicit instruction for both completing and sending back the questionnaire. (p. 277)
The questionnaire consists of thirty-one questions with three different types of questions. The first type has twenty-one closed-ended questions which requires ‘Yes’ or ‘No’, or Likert scales (e.g. Never, Rarely, Occasionally, Often, Very often) answers. The second type consists of seven combined questions type; each question has two parts, both a closed-ended and an open-ended questions. The participants are asked to answer closed-ended question first and then to describe the underlying reason(s) why they have chosen the answer. The third type comprises three open-ended questions that ask participants to describe their opinions or suggestions.

The questionnaire is divided into three sections.

- The area of identification, assessment and management of somatisation by osteopaths in clinical practice settings was surveyed
- The previous education and participants’ attitude towards further education in relation to somatisation was surveyed
- The demographic background was surveyed; (a) gender, years in osteopathic practice, (b) institution of osteopathic training, (c) qualifications in mental healthcare field, and (d) region of practice in New Zealand.

To help understanding of the concept of ‘somatisation’ that might not be commonly used by the potential participants in their daily osteopathic clinical practices, the 16 questions from 4DSQ (Terluin et al., 2006) were presented in the first part of the questionnaire, along with the definition of somatisation. The 16 questions centred on the assessment of somatisation in clients, and the potential participants were asked to choose one of their clients and assess him/her in mind with the questions. The aim of this process was to help a potential participant to describe a client with somatisation in case he/she is not familiar with the concept of somatisation.

The questionnaire of this study was adapted from the questionnaire construction models designed by (Nasrallah, 2003) and (Sampath, 2008).

3.4.4 Pilot study

A pilot study was performed to see if the developed questionnaire would generate the relevant data. The questionnaire, with supporting information, was firstly given to five Unitec tutors from the osteopathic clinic, and to six of the researcher’s osteopathic course peers. They were asked to detect any ambiguity and problems caused by unclear instructions, and readability level of the questionnaire. The participants of the pilot study were first asked to try the questionnaire, and then to give face to face feedback to the researcher regarding the following two aspects: (a) How they interpreted each questions, and (b) What they thought of each questions. Bowling (2010) recommends face to face
piloting to be continued with new sample members until the researcher confirms that the questionnaire requires no further changes.

Norwood (2000) suggested some guidelines for pilot study as following:

- Was the questionnaire easy to read?
- Were the instructions clear?
- Were there any items you did not understand?
- Did you find any of the items to be offensive?
- Were you uncomfortable answering any of the items?
- What comments do you have on the organization of the questionnaire?
- How long did it take you to complete the questionnaire?
- How could the questionnaire be improved? (p. 204)

The main feedback from the pilot study was as following: (a) The term ‘somatisation’ is unfamiliar, (b) The instruction is unclear, especially the part of 4DSQ is not easy to understand, (c) Some wording in some questions is unclear, (d) The questionnaire is too long, and (e) The arrangement of some questions is not suitable.

3.4.5 Data collection

The questionnaire was sent by an e-mail distribution link to members of OSNZ, ISOP. The e-mail contained an information mail (see Appendix A) and a web link.

Respondents were given 14 days to complete and return the questionnaire to the researcher. As the response rate after 14 days was very low, a reminder mail was sent offering an extension of 14 more days. Following the first reminder email, the response rate was 13% (30 responses), which was not encouraging. So, a second reminder email was sent along with a request for participation from the two societies’ administrations. Accordingly, the deadline was further extended by three weeks. The final response rate was 18% (n = 42). Participants were also encouraged to contact the researcher or the researcher’s supervisor if any issues arose after submitting the online questionnaire. However, neither the researcher nor the researcher’s supervisor were contacted in this regard.

3.5 Data analysis

This study used a mixed method approach that combined quantitative and qualitative methods. Accordingly, the data analysis was respectively followed for both methods.
Individually analysed data was combined for further analysis as recommended by Simons and Lathlean (2010). Simons and Lathlean note that the different methods complement each other as qualitative methods provide detailed information for understanding the context, while quantitative methods outlines the context. In this regard, qualitative data can illustrate some of the themes arising from the quantitative data. Alternatively, quantitative data can give concrete evidence to support the interpretive analysis of qualitative data.

3.5.1 Quantitative data analysis

Both descriptive and inferential analytical techniques were used in the analysis of the quantitative data obtained in this study. Descriptive analysis involves combining the data together in order to classify them into categories, and then presenting them in tables or graphs to show relationships among categories or variables (Brink & Wood, 2001). On the other hand, inferential analyses objectively evaluate the outcome of a study to see whether or not the results occurred by chance (Brink & Wood, 2001).

As an inferential analysis, the non-parametric techniques of the Fisher’s exact test and the Mann-Whitney U-test were used to find the relatedness or independence between the variables. The software package of Statistical Package for the Social Sciences (SPSS version 18.0) was used for these techniques.

This study investigated the relationship within the binary variables (e.g. gender). If an answer to a question was a dichotomous response (e.g. ‘yes’ or ‘no’), Fisher’s exact test was used. On the other hand, in case an answer to a question was a Likert scale (ordinal), the Mann-Whitney U-test was used. The analytical tools listed above were chosen based on theory proposed by Plichta and Garzon (2009). According to Plichta and Garzon, the Fisher’s exact test is used to compare two independent variables, which is the same as Chi-square test. However, the basic assumption of the Chi-square test is that each cell should have at least five expected frequencies. If any cell has fewer than five expected frequencies, Plichta and Garzon recommend the Fisher’s exact test be used. The Mann-Whitney U-test is a nonparametric test which can be used for a small sample size to determine if a relationship exists between two groups when a variable is dichotomous and the other variable is at least ordinal.

The process of the analysis of inferential statistics in this study followed the steps described by Plichta and Garzon (2009):

- State the hypothesis (both null and alternative versions). The tests in this study applied a null hypothesis, which means that the two variables, an independent and a dependent, are not associated.
• Define the significance level (e.g. α level), then choose the appropriate test statistics after determining the critical region and the rejection rule. The alpha level of this study is .05. This means that if the value of the test statistic occurs by chance, 5% of the time or less, the null hypothesis is rejected.
• Make sure the data meet the necessary assumptions to compute the test statistic. In this study, non-parametric tests (distribution-free tests) were used; hence no distributional assumption was considered (Weinberg & Abramowitz, 2008). However, Plichta and Garzon (2009) point out that the common assumption of Fisher’s exact test and Mann-Whitney U-test is that the compared variables should be independent of each other. The basic assumption of Mann-Whitney U-test is that the independent variable should be dichotomous, the dependant variable should be at least ordinal. This study did not violate these assumptions.
• Compute the parameters that are being compared by the test statistic.
• Compute the test-statistic and obtain its p-value.
• Determine if the result is statistically significant and then, clearly state a conclusion.

3.5.2 Qualitative data analysis

This study adopted thematic analysis for the qualitative data. Boyatzis (1998) states that a theme is a pattern found in information of the phenomenon that can be interpreted at the minimal level. Houser (2008) proposes that a theme can be some ideas from the data that are “Implicit recurring and unifying ideas derived from the raw data in qualitative research” (p. 521).

According to Boyatzis (1998), thematic analysis is a process by which encodes qualitative information in a systematic way. Thorne, Kirkham and Emes (1997) explain how to identify common themes from the collected data. They note that when researchers come to know individual cases intimately, they can abstract relevant common themes to produce a sort of knowledge and apply that knowledge back to individual cases.

Qualitative research researchers recommend some important points to bear in mind when carrying out a thematic analysis with qualitative data. To encode qualitative information, Morse (as cited in Thorne, 2008) suggests applying four sequential cognitive processes; comprehending, synthesising, theorising and recontextualising. In order to carry out these processes successfully, Thorne, Kirkham and Emes (1997) emphasise the need for “repeated immersion”.

The thematic analysis in this study was done following the steps outlined by Houser (2008):

(a) Management and organisation of data
(b) Revision of the data for an initial impression
(c) Identification of a classification system – development of general categories
(d) Development of a data code and subsequent coding of the data
(e) Evaluation of the codes to identify overall themes

Identified themes from the qualitative data in this study were then analysed, taking into consideration the relevant quantitative data. The detailed themes are outlined in Chapter Four.

3.6 Ethical issues

3.6.1 Participation and implied consent

The ethics approval for this study was granted by the UNITEC Research Ethics Committee (UREC registration number: 2010-1119). Participation for the potential participants in this study was voluntary. The fact that participation was voluntary was clearly stated in the information e-mail along with the aims of the study and a definition of somatisation (See Appendix A). No separate consent form was provided. Once participants volunteered to participate, implied consent was applicable as was stated in the information e-mail.

3.6.2 Anonymity and confidentiality

The data collection method for this study was through an internet survey, and individual participants’ privacy was taken into particular consideration throughout.

Eynon, Fry and Schroeder (2008) warn that internet surveys with direct contact between researcher and participant may compromise anonymity and confidentiality. An internet survey may not maintain complete confidentiality of the data because e-mail addresses can often be identifiable and the data collection through e-mail is retained on the transmitting server.

Another ethical issue considered in this study is the issue of “spam” mail. According to Fricker (2008), distribution of unsolicited e-mail related surveys through e-mail addresses collected from postings on the web and individual could be a violation of professional ethical standards, or be illegal due to the issue of so called “spam”.

There was no direct contact between the researcher and participants in the study as the survey questionnaire and reminding e-mails were distributed to potential participants through the OSNZ and the ISOP e-mail distribution links to members. The questionnaire did not ask participants to provide any identifiable personal information and data collection took place through the internet service/web “survey monkey”™ without storing personal information such as the participants’ name or e-mail address.
3.6.3 Withdrawal from the study

This study did not offer the option of withdrawal specifically after submission of questionnaire as it is difficult to identify particular participants who submitted the questionnaire once returned. However, a participant was given the option of contacting the researcher or the researcher’s supervisors if any issues became apparent. This was clearly stated in the information e-mail, which provided the contact details of the researcher and the supervisors (See Appendix A).

3.6.4 Storage and destruction of study materials

All the data collected for this study will be kept confidential by storing in locked cabinets, and only accessible to the researcher. All computer files regarding this research will be password protected and only accessible to the researcher. The collected data and computer files will be kept for five years before secure disposal in accordance with Unitec’s regulations on research projects.

3.6.5 Distribution of findings

The findings of this study will be disseminated as following: (a) The abstract of the study will be emailed to OSNZ and ISOP for members’ reading, (b) A copy of the whole study will be held in the Unitec library, (c) Presentation will be made within the Department and to external stakeholders at conferences, (d) An article will be submitted for publication.

3.7 Chapter summary

This chapter presented the design, method and the rationales for selecting this particular design and method in this study. The study used a mixed method; quantitative and qualitative method to collect data and analyse the collected data. The advantages of survey using internet was discussed. The presented process of data analysis of quantitative and qualitative data was aimed to describe and explore how osteopaths in New Zealand identify, assess and manage clients with somatisation, and what attitudes the osteopaths in New Zealand have toward somatisation.
Chapter Four: Results

4.1 Introduction

This chapter has six sections. The first section presents a description of the demographic information of the respondents in terms of gender, years of osteopathic experience, and institution of training. The second section has the assessment procedures used by respondents. The third section demonstrates the analysis of the respondents’ clinical approaches to manage the clients with somatisation, such as adopting and or adapting treatment approaches, advice and referral. The fourth section shows previous education of respondents related to somatisation including psychological, behavioural and social variables on health, illness and disease, and their views about further education. The fifth section focuses on the findings of inferential analyses of demographic data with major variables. The final section presents the findings of descriptive and thematic analysis of the qualitative data presenting major themes and sub-themes.

4.2 Demographic data analysis

4.2.1 Participation rate and gender

Of the 230 practising osteopaths in New Zealand who were invited to participate in the survey, 42 osteopaths participated in this study and returned the questionnaire. However, two respondents gave up completing the questionnaire before reaching the key questions in this survey. Thus, the data from these two respondents was excluded from the analysis. The overall response rate is 17% (40 respondents out of the invited population of 230). 35 participants (88%) answered the participants’ gender, of which 18 respondents (51%) were males and 17 (49%) were females.

4.2.2 Years in osteopathic practice

More than half the respondents (n=21) had been in osteopathic practice for more than 11 years, of which one respondent reported for more than 30 years. 10 respondents had 4 to10 years of experience and nine had 0 to 3 years of experience. (See Table 4.1 for details).
Table 4.1: Years in osteopathic practice of respondents (N=40)

<table>
<thead>
<tr>
<th>Years in practice</th>
<th>Number of Respondents (N)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-3</td>
<td>9</td>
</tr>
<tr>
<td>4-10</td>
<td>10</td>
</tr>
<tr>
<td>11-20</td>
<td>13</td>
</tr>
<tr>
<td>21-30</td>
<td>7</td>
</tr>
<tr>
<td>More than 30</td>
<td>1</td>
</tr>
</tbody>
</table>

4.2.3 Country and institute of education

Half of the respondents (n=20) received their osteopathic education in UK. On the other hand, 17 respondents received their education in New Zealand and 13 of them were educated at Unitec Institute of Technology. Three received their education in Australia. Table 4.2 shows the various institutes/schools of education of the respondents.

Table 4.2: Institute/School of Education of Respondents (N=40)

<table>
<thead>
<tr>
<th>Institute/school of education</th>
<th>Number of respondents (N)</th>
</tr>
</thead>
<tbody>
<tr>
<td>British College of Osteopathic Medicine</td>
<td>6</td>
</tr>
<tr>
<td>British School of Osteopathy</td>
<td>9</td>
</tr>
<tr>
<td>Allied School of Osteopathy and School of Osteopathic Education, Bristol, England</td>
<td>1</td>
</tr>
<tr>
<td>College of Osteopaths Educational Trust</td>
<td>1</td>
</tr>
<tr>
<td>European School of Osteopathy</td>
<td>2</td>
</tr>
<tr>
<td>International College of Osteopathy</td>
<td>1</td>
</tr>
<tr>
<td>Osteopathic College of New Zealand</td>
<td>3</td>
</tr>
<tr>
<td>Royal Melbourne Institute of Technology</td>
<td>2</td>
</tr>
<tr>
<td>Unitec Institute of Technology</td>
<td>14</td>
</tr>
<tr>
<td>Victoria University</td>
<td>1</td>
</tr>
</tbody>
</table>
4.2.4 Qualifications/education in the field of mental health care

10 respondents (25%) had qualification or education in the field of mental health. These included courses or programmes in sociology, psychology (e.g. Diploma in Sociology, Masters in Psychology), and work experiences (e.g. in mental health establishments, as a medical social worker).

4.2.5 Region of practice in New Zealand

More than half of the respondents (n= 22, 54%) had their practice in an area with population of more than 20,000, and 10 respondents (24%) in a large town with population from10,000 to 20,000. Other respondents had their regions of practice in small towns or both places in large town and city.

4.3 Assessment

4.3.1 Identification of somatisation

This study investigated how often the participant practitioners feel the need to identify somatisation in the clients while they listen to the clients’ medical history along with complaints. 22 respondents (56%) reported ‘Occasionally’ and 11 respondents (28%) showed ‘Often’ whereas five respondents (13%) presented ‘Rarely’ and only one respondent (3%) expressed ‘Never’. When classifying the answers into two categories, positive side (occasionally and often) and negative side (rarely and never), most of the respondents (n=33, 84%) in this study felt the need to identify somatisation in their clients positively while only six respondents (16%) reported ‘negatively. (See Figure 4.1 for details).

![Figure 4.1](image)

*Figure 4.1*: The frequency of cases in which respondents feel the need to identify somatisation in clients

Further analysis of the respondents who answered a need for identification of somatisation in their clients presents in the following. 38 respondents reported a need to identify somatisation in their
clients. Among these, 15 (39%) respondents reported it ‘Considerably’, 11 (29%) ‘Some’ and one reported (3%) ‘A great deal’ to this need. However, 11 (29%) gave ‘A little’ or ‘Not at all’ consideration. (See Figure 4.2).

![Figure 4.2: The consideration given by the respondents to the identification of somatisation](image)

4.3.2 Influence of identified/suspected somatisation on assessment

More than two-third of the respondents (n=25, 68%) reported that if they identified/suspected somatisation in clients from presenting complaints and medical histories, it would influence the way they assess the clients. However, one-third of the respondents (n=12, 32%) felt otherwise. The reasons for influence or lack of influence given by respondents on assessment are presented in section 4.7.1.1.

4.3.3 Assessment of somatisation

**Questioning:** Most of respondents (n = 33, 89%) questioned the clients regarding somatisation (e.g. How the presenting symptoms are related to the client's psychosocial distress). On the other hand, a few respondents (n=4, 11% ) reported that they did not question clients on this issue. 100% of the respondents (n=9,) with qualification or with working experience in mental health field reported questioning their clients about this issue in contrast to 86% of the respondents (n=24) without qualification or working experience in mental health field did.

**Standardised assessment tools:** The majority of respondents preferred interview, and 23 respondents (62%) used a structured diagnostic interview to assess somatisation in their clients. Among those, 17 respondents (74%) reported ‘Very often’ or ‘Often’. Others preferred questionnaire, and 17 respondents (46%) used standard physical symptoms questionnaire to assess somatisation in their clients. Of these, 11 respondents( 65%) reported ‘Often’ or ‘Very often’, Two (12%) reported ‘Occasionally’ and four (24%) reported ‘Rarely’. 12 respondents (39%) used other screening tools for somatisation including Visual Analogue Scale (VAS) pain score, a pain description score, a pain
chart/diagram and observation. Figure 4.3 illustrates different screening tools used for somatisation by respondents.

![Assessment tool used by respondents](image)

Figure 4.3: Standardised assessment tools used for somatisation as reported by respondents

4.3.4 Use of specific osteopathic/manual diagnostic tools for the clients with somatisation

37 respondents used an osteopathic/manual diagnostic tool for assessment of clients with somatisation. These assessment tools include tissue palpation, cranial rhythm and other osteopathic/manual tools.

*Tissue palpation:* All the respondents (n = 37, 100%) used a tissue palpation diagnostic tool in clients with somatisation. 18 respondents (49%) reported using tissue palpation ‘Very often’ and 15 (41%) reported ‘Often’.

*Cranial rhythm:* 29 respondents (78%) used cranial rhythm as a diagnostic tool for somatisation, while six respondents (17%) reported ‘Never’.

*Other osteopathic/manual tools:* 10 respondents (27%) used other osteopathic/manual screening tools including verbal/non-verbal communication, observation, and free play of tissues. Figure 4.4 presents a variety of osteopathic/manual screening tools for somatisation as reported by respondents.
4.4 Management of somatisation

4.4.1 Reported frequency of clients with somatisation

At the beginning of the questionnaire, 16 questions from 4DSQ were presented to assess the level of somatisation in clients. Participants were asked to choose one of their clients and assess him/her in their mind by the 4DSQ questions. The aim of this process was to help participants to describe a client with somatisation in case a participant is not familiar with the concept of somatisation. Each question of 4DSQ asks about a somatisation symptom and has the scores of frequency, starting from 0, 1 or 2 depending on how often the client had the symptom for two weeks prior to visit the clinic. The interpretation of 4DSQ score is that if a patient has total score of more than 10, that patient has elevated somatisation. Following this process, participants were asked how often they encounter the clients with somatisation who may have 4DSQ score more than 10. 15 respondents (39%) had the clients with somatisation ‘Occasionally’, 11(29%) were ‘Often’ or ‘Very often’. 12(32%) were ‘Rarely’ or ‘Never’. (See Figure 4.5 for details).
4.4.2 Reported frequency of management

When a client is identified to have somatisation, most of the respondents (n = 35, 95%) reported that they would help their clients in dealing with somatisation in the course of providing osteopathic treatment whereas 2 respondents (5%) reported otherwise. The reasons for managing somatisation in clients or not are presented in section 4.7.1.2.

4.4.3 Adoption of treatment approaches

When somatisation in clients was identified, a majority (n = 26, 77%) of respondents did not adopt any specific treatment approach for the clients. Eight respondents (23%) preferred specific treatment approaches for these clients. Many respondents argued that each client is unique and the adoption of treatment approach should always be taken into consideration depending on the individual client’s case-history and presenting symptoms, not specifically for the client with somatisation.

A question was given to the eight respondents who preferred to adopt specific treatment approaches. The question allowed multiple answers to ask the detail of their adoption. Five respondents preferred cranial techniques, and five respondents structural techniques. Four respondents utilised visceral techniques and four respondents used combination of these treatment techniques.

4.4.4 Adapting treatment approach

29 respondents (85%) stated that they adapt their treatment approach when treating clients with somatisation. The adaptations made by practitioners, with underlying reasons, are summarised in section 4.7.1.3.

Those who did not adopt specific treatment approach (n = 5, 15%) for the clients with somatisation reflected their views on osteopathic treatment. They note that all patients need individualised adaptation, thus the adaptation is no different to any other clients.

4.4.5 Advice given to clients

34 respondents answered this question about giving advice to clients. All 34 respondents (100%) offered advice to their clients in relation to treatment options of somatisation as part of the management process.

From those (n=34) who offered advice to their clients, 33 respondents (97%) advised relaxation techniques. Most of the respondents (n=30-32, 88-94%) suggested behavioural strategies, psychological therapy, breathing techniques, exercise, hobby activities and yoga or meditation. 13 (38%) advised other strategies such as Pilates, stretching, diet, fluid intake, chi-kung, tai-chi and massage therapy. (See Figure 4.6 for details)
4.4.6 Practitioner beliefs in the efficacy of osteopathic treatment in dealing with clients with somatisation

12 respondents (31%) reported ‘Strongly agree’ to the statement that osteopathy helps clients with somatisation. 19 respondents (49%) ‘Agree’ and the rest (21%) ‘Neither agree nor disagree’ to the statement. No respondent reported ‘Disagree’ nor ‘Strongly disagree’. Combining the ‘Strongly agree’ and ‘Agree’ responses makes up 80% of respondents who believe in the efficacy of osteopathic treatment in dealing with clients with somatisation. (See Figure 4.7 for details).

Figure 4.7: Practitioner beliefs in the efficacy of osteopathic treatment in dealing with clients with somatisation

4.4.7 Referring clients to other programmes/practitioners

All respondents (n =33) answered that they refer clients with somatisation to some other practitioners/programmes.
30 respondents (88%) referred clients to their general practitioner (GP), 27 (79%) to a psychologist/counsellor, 24 (71%) to a psychiatrist/psychotherapist and 29 (85%) referred clients to alternative medicine such as acupuncture, homeopath and naturopath. One-third of respondents referred clients to other services including occupational health consultant, dietician, hypnotherapy, yoga, exercise program and progressive goal attainment program. (See Figure 4.8 for details)

Figure 4.8: Referral of clients by respondents to other practitioners/programmes

4.4.8 Difficulties in managing clients with somatisation

Most respondents answered that it was difficult to manage clients with somatisation. Among these, 18 respondents (46%) felt that it was ‘Considerably’ or ‘A great deal’ difficult to manage clients with somatisation. 15 respondents (39%) reported ‘Some’ difficult. Five (13%) reported ‘A little’ and only one respondent reported ‘Not at all’. This equates to 85% finding it more than ‘Some’ difficult and 15% finding it less than ‘A little bit’. (See Figure 4.9 for details). The details of difficulties in managing clients with somatisation are presented in section 4.7.1.6.

Figure 4.9: Perceived level of difficulty in managing clients with somatisation as reported by respondents
4.5 Education with regard to somatisation

4.5.1 Previous education

Respondents were asked if they had previous education related to somatisation during their osteopathic training course. Then, they were asked how the specific education has prepared them adequately to begin their practice.

18 answered ‘Some’, 5 answered ‘Considerably’ and 2, ‘A great deal’. On the other hand, 11 answered ‘A little’ and 4, ‘Not at all’. In summary, 36 respondents (90%) reported having had specific education regarding somatisation in their osteopathic training. Figure 4.10 presents previous education regarding somatisation in their osteopathic training.

![Figure 4.10: Perceived amount of specific education during osteopathic training course in relation to somatisation reported by respondents](image)

For the participants who have had education about somatisation, their education was as a part of their psychosocial education, psychology, psychoneuroimmunology, psycho-somatic course. Some respondents reported that the topic of somatisation was clinically discussed during the training rather than as specific course content.

A few reported that they have had broad education in relation to psychosocial effect on physical symptoms but not specific for somatisation. To quote a participant:

“Yes, the osteopathic philosophy has stressed the importance of all of the above you have mentioned and we did train to become osteopaths. Though, we were never taught how to specifically treat somatisation, we were taught the importance of the effects of say psychology on pain, etc!”
Seven respondents (18%) perceived that the education they had received regarding somatisation have prepared them to manage the clients with somatisation ‘Considerably’ or ‘A great deal’ in the beginning of their practice. In contrast, 18 respondents (36%) felt that this education has prepared them ‘A little’ or ‘Not at all’. 15 respondents (38%) stood in the neutral position and reported that their education has prepared them ‘Some’.

4.5.2 Qualifications and work experience in the field of mental health

10 respondents (25%) had qualifications, education or work experience in the field of mental healthcare. They had qualifications such as Bachelor of Science in Psychology and Diploma in Counselling. Others had education such as clinical psychology, psychotherapy and body oriented psychotherapy. Their work experience included working in medical health institutions, medical social work and working with psychotherapist or behavioural therapist.

4.5.3 Further education

The respondents were asked if further education in relation to somatisation would be valuable for their practice. 30 respondents (75%) reported that further education about somatisation would be valuable for their practice. In contrast, 10 respondents (25%) answered that further education is not important for their practice. They gave some reasons. One of the reasons is that they have already had sufficient education on somatisation. The second reason is that this sort of knowledge would not be attainable through the course curriculum. The suggestions and comments on further education in relation to somatisation are presented in section 4.7.1.7.

4.6 Inferential analyses

This study used Fisher’s exact test and Mann-Whitney U-test for inferential analyses of quantitative data to test the relatedness or independence between variables. Independent variables included gender, qualifications/education in mental health field and years of osteopathic practitioner experience. Dependent variables were: (a) How much consideration the respondents give to identify somatisation during the case-history taking from their clients, (b) If somatisation in a client is identified/suspected, whether it influences the way the respondents assess the client or not, (c) If they adapt their treatment approach for the clients with somatisation, and (d) How much they feel difficulty to manage the clients with somatisation.

4.6.1 Consideration given to identification

The question is “When you feel that you need to identify somatisation in your clients, how much weight do you give to the identification of somatisation?” (See Appendix B, Q.3.1). This question used a Mann-Whitney U-test to compare binary variables. A Mann-Whitney U-test result shows that
there is no significant difference between two groups in gender (male/female), years of osteopathic practice (0-10 years/more than 10 years) and qualification/education in mental health field (yes/no). All of the exact significance values of the tests exceed the level of significance for this study, $\alpha=0.05$. Gender groups show $p=0.175$, mental health qualification groups, $p=0.745$ and different osteopathic practice years groups, $p=0.075$. Although these showed no significant difference, the exact value of different osteopathic practice years groups ($p=0.075$) shows near significance level $\alpha=0.05$. The cross tabulation shows that the respondents who had practiced more than 10 years give more consideration to identify somatisation in clients than the respondents with less than 10 years’ practice. 11 respondents (58%) in the group who practiced more than 10 years answered the degree ‘Considerably’ and ‘A great deal’ compared to five respondents (26%) in 0-10 years group. (See Table 4.3 for details).

Table 4.3: Cross tabulation of practitioner’s years in practice (vs.) consideration given to identification of somatisation (n=38)

<table>
<thead>
<tr>
<th>Answer Options</th>
<th>0-10 years</th>
<th>More than 10 years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not at all</td>
<td>1 (6%)</td>
<td>1 (6%)</td>
</tr>
<tr>
<td>A little</td>
<td>6 (32%)</td>
<td>3 (16%)</td>
</tr>
<tr>
<td>Some</td>
<td>7 (36%)</td>
<td>4 (22%)</td>
</tr>
<tr>
<td>Considerably</td>
<td>5 (26%)</td>
<td>10 (52%)</td>
</tr>
<tr>
<td>A great deal</td>
<td>0 (0%)</td>
<td>1 (6%)</td>
</tr>
<tr>
<td>Total</td>
<td>19 (100%)</td>
<td>19 (100%)</td>
</tr>
</tbody>
</table>

4.6.2 Influence on the way of assessment

Fisher’s exact tests were used for the question “If you identified/suspected somatisation in a client from his/her presenting complaints and medical histories, would that influence the way you assess the client?” (See Appendix B, Q.4.1). The results of Fisher’s exact tests showed that there was no association between groups in gender (female, male), showing $p=0.277$ as the exact p-value is $p >0.05$. Years of osteopathic practice (0-10 years, more than 10 years) shows, $p=0.728$, which is not significantly different as $p >0.05$. Qualification/education in mental health field (yes, no) shows $p=0.22$ which is also not significantly different ($p >0.05$). Most respondents (89%) with qualification/education in mental health field reported that identified/suspected somatisation in clients influences on their
assessment compared to the respondents (61%) without qualification/education in mental health field. (See Table 4.4 for details).

Table 4.4: Cross tabulation of qualification/education in mental health field (vs.) influence on way of assessment

<table>
<thead>
<tr>
<th>Attributes</th>
<th>Influence on way of assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yes (89%)</td>
</tr>
<tr>
<td>Qualification in mental health field</td>
<td>8 (89%)</td>
</tr>
<tr>
<td>No</td>
<td>17 (61%)</td>
</tr>
<tr>
<td>Total</td>
<td>25 (68%)</td>
</tr>
</tbody>
</table>

4.6.3 Adaptation of treatment approaches

The question “Do you adapt your treatment approach for these clients?” (See Appendix B, Q.7.2). Fisher’s exact tests showed no significant association (exact p-value, p > .05) between the compared two groups. Male and female respondents showed p=0.606, between the respondents with and without mental health qualification, p=0.1, and the group in different osteopathic practice years showed p=0.648.

4.6.4 Reported difficulty in management

The question to this analysis was “How difficult do you feel it is to manage clients with somatisation?” (See Appendix B, Q.9.4). Mann-Whitney U-test showed no significant relation between groups in gender (p=0.562), qualification/education in mental health field (p=0.719) and years of osteopathic practitioner experience (p=0.203). The cross tabulation shows the more respondents (55%) who have more than 10 years experience reported difficulty than the respondents (37%) who with 0-10 years experience when we consider two answers “Considerably” and “A great deal” only.
Table 4.5: Cross tabulation of practitioner’s years in practice (vs.) perceived level of difficulty in management of clients with somatisation (n=39)

<table>
<thead>
<tr>
<th>Answer Options</th>
<th>0-10 years</th>
<th>More than 10 years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not at all</td>
<td>0</td>
<td>1 (5%)</td>
</tr>
<tr>
<td>A little</td>
<td>4 (21%)</td>
<td>1 (5%)</td>
</tr>
<tr>
<td>Some</td>
<td>8 (42%)</td>
<td>7 (35%)</td>
</tr>
<tr>
<td>Considerably</td>
<td>7 (37%)</td>
<td>10 (50%)</td>
</tr>
<tr>
<td>A great deal</td>
<td>0</td>
<td>1 (5%)</td>
</tr>
<tr>
<td>Total</td>
<td>19 (100%)</td>
<td>20 (100%)</td>
</tr>
</tbody>
</table>

4.7 Analysis of Qualitative Data

This section presents the findings from the analysis of the qualitative data in this study. The analysis of the qualitative data presents two ways. One is the descriptive analysis of participant responses who answered the provided open-ended questions, and the other is the thematic interpretive analysis of the data.

4.7.1 Descriptive analysis of qualitative data

This section presents a summary of practitioner participants’ responses to the open-ended questions, which were aimed to explore following topics:

(a) Influence of identified/suspected somatisation on assessment of a client

(b) Attempt to help or manage the clients with somatisation

(c) Adaptation of treatment approaches for the clients with somatisation

(d) Reasons for not referring clients with somatisation to other practitioners/programmes

(e) Beliefs in the efficacy of osteopathic treatment in dealing with clients with somatisation

(f) Difficulties in managing clients with somatisation experienced by practitioners, and

(g) Suggestions and comments on further education in relation to somatisation
4.7.1.1 Influence of identified/suspected somatisation on assessment

The participants were asked whether identified or suspected somatisation in a client would influence the way to assess the client. Then they were asked to provide their opinions and reasons for choosing their answer ‘Yes’ or ‘No’ (See Appendix B, Q.4.1). The response ‘Yes’ from the participants fell under two categories.

Modification of assessment process: This modification is to add psychological/cognitive constituents to standard assessment. Some respondents reported that they make diagnostic sieve broader to consider the psychosocial and behavioural aspects of the client, which might be related to the presenting symptoms. Other respondents reported that they spend more time to investigate further details of the contributing factors for the symptoms to prevent an erroneous conclusion as the clients with somatisation often complain unspecific physical symptoms in various areas.

Modification of assessment focus: Some respondents reported that they modify the assessment focus if the presenting symptoms are caused by actual musculoskeletal dysfunction or somatisation, and if the symptoms are in the scope of osteopathic practice. Other responses include working more on the sensitisation of the CNS and giving greater priority to patients’ emotional state such as self protection and emotional fragility.

The respondents who answered ‘No’ gave reasons. They carry out full physical examination because they think that it is the first priority to exclude red flags first. Some try to identify tissues causing symptoms first to establish the base of treatment. The others make efforts to maintain an unbiased view, not considering the symptoms caused by the patient’s psychological problem as the symptoms they are experiencing are so ‘real’ to them. Some comments by respondents who answered ‘No’ are listed in the following:

“Although you need to consider the person as a whole with each patient you also need to identify tissues causing the symptoms, otherwise what do you base your treatment on”

“must always eliminate those red flags first, I feel somatisation is a diagnosis of exclusion when it comes to being a primary healthcare practitioner”

“A patient needs to be treated in a way that makes them feel you are listening to them and accept that what they are feeling is very real to them.”

Two respondents who reported ‘No’ mentioned that it is difficult to separate clients with or without somatisation because somatisation is wide spread phenomenon as following:
“this is so wide spread that you could barely separate clients with or without. It is a matter of grades. ...

“I assume a degree of ‘somatisation’ in all patients. …”

4.7.1.2 Attempt to help or manage the clients regarding somatisation

This category is related to this question: “If you identified any somatisation in your clients, would you attempt to help or manage your clients regarding this issue? Please provide your opinion about the reason for choosing your answer above” (See Appendix B, Q.5.1). All of the respondents answered ‘Yes’ except two respondents. The majority of respondents gave the reason for their attempt to help and manage the clients with somatisation that they can offer treatment/help their clients regarding the management of somatisation. Their approaches to help and manage these clients include osteopathic manual treatment, psychological/cognitive approaches, advice/education and referral to other professionals. One respondent who answered ‘No’ commented the reason as below. However, the respondent already implied his intention to help the client with referral.

“No I would make sure they are helped by someone qualified in this area. I will help them with their musculoskeletal issues.”

4.7.1.3 Adaptation of treatment approaches

The participants were given a question first “Do you adapt your treatment approach for these clients?” When they chose the answer ‘yes’, they were asked how they adapt and they were also asked to provide the reasons of the adaptation. (See Appendix B, Q.6.1). The adaptation of treatment approaches by the respondents who answered ‘Yes’ can be categorised into two as below:

Employment of psychological/cognitive constituents in treatment approach: This category includes explanation and discussion to increase clients’ awareness of the linkage between emotional state and physical symptoms. While developing a good rapport making clients feel heard, they try to set achievable treatment goals and encourage clients to be involved in self-management. They encourage clients to talk about events/issues that might be related to presenting symptoms, while setting safe boundaries during the treatment. Some example comments are:

“By trying to explain that symptoms may be due to other stresses, depending on their reaction will dictate direction of treatment or referral.”

“I try not to re-enforce their views on their pain, but also not to be dismissive, their pain is real, so I try and give them logical explanations”
Modification of osteopathic manual techniques: This category includes choosing specific techniques for these clients such as cranial treatment, involuntary motion techniques, and fascial, soft-tissue and articulation techniques. Some respondents reported that they modify their treatment intention during the course of osteopathic manual treatment such as being more careful in explaining treatment procedure and explicit in getting consent, gentle and indirect approaches, and attentive to the treatment response of the client such as breathing pattern and emerging emotion while focusing on specific symptom rather than chasing the pain around body. Some example comments are:

“it depends, sometimes an indirect approach is best, even while working with IVM. The whole treatment wouldn’t necessarily be different though”

“I don’t expect the same level of response to simple injuries and don’t try and chase the pain around the body. I will work on specific injuries and somatic dysfunction and with an over view of enhancing general well being perhaps more than someone without ‘somatisation’…”

The respondents who answered ‘No’ revealed their views that adaptation of treatment for the individual patient should be always made depending on his/her case history and presenting symptoms. Thus, no specific adaptation should be considered for the clients with somatisation. Some comments are as below:

“you treat no two patients exactly the same, somatisation or not”

“The adaptation is no different to any other patient, they are all treated as individuals. Osteopathic treatment shouldn't be prescriptive on the osteopath’s part”

4.7.1.4 Reasons for not referring clients to other practitioners/programmes

The question to this item was: Do you refer your client to another health practitioner or program? If ‘No’, please provide the reason. (Refer Appendix B, Q.8.2).

All respondents reported that they would refer their clients with somatisation to other practitioners/programmes when they feel it is appropriate. Many respondents presented their strategies in which they refer their patients to other therapists and at the same time, they continue osteopathic treatment for the co-management of the clients. Some example comments are:

“... but I would refer them on if I felt I was unable to and I would normally suggest they see a therapist even if they were continuing to see me as well”

“Depending on their presentation, I may co-manage the patient but definitely get help from the appropriate modalities should the patient want it”
4.7.1.5 Beliefs of practitioners in the efficacy of osteopathic treatment in dealing with clients with somatisation.

The question was “To what extent do you agree with the following statement? ‘Osteopathic treatment helps clients who have somatisation issues.’ Please provide your opinion about the reason for choosing your answer above.” (See Appendix B, Q.9.3). The responses options were to choose from five Likert scales which had degrees from ‘Strongly disagree’ ‘Disagree’ ‘Neither agree nor disagree’ ‘Agree’ and ‘Strongly agree’. There was no response of ‘Strongly disagree’ or ‘Disagree’. The respondents who answered ‘Agree’ or ‘Strongly agree’ reflect their degree of belief in the efficacy of osteopathic treatment in dealing with clients with somatisation. Some of the comments by respondents are as follows:

“Somatisation still give physical symptoms the patient may not even be aware of this so as a port of call for their symptoms it give use with our training an opportunity to help and guide them to getting some relief either from us directly or indirectly.”

“I think simply the way osteopaths engage with patients (comparatively long appoint times, touch etc) may be therapeutic across a wide spectrum of issues a person may have.”

Among those who answered ‘strongly agree’, three respondents revealed their beliefs in the efficacy of osteopathic treatment for managing somatisation in clients because they have had their clinical experience of the clients with somatisation. Their comments are:

“Because I have seen it work and made it work...........even if it is regularly but infrequent.”

“Because it works.”

“From results seen in practice!”

Some respondents who responded ‘neither agree nor disagree’ represented their beliefs in neutral position in the efficacy of osteopathic treatment in relation to somatisation. Some of the comments by these respondents are as follows:

“Physical therapy may or may not have an influence on their symptoms (for whatever reason that might be - explainable or otherwise) but if one does ‘No Harm’ and the management plan is explained in understandable language and the patient consents, then yes”

“osteopathic treatment these days, with the modern accent on prescriptive analytical approach is marginally suited to this topic. ... Osteopaths well experienced in palpatory skills on the other hand and with good intent can be extremely helpful”
4.7.1.6. Difficulties experienced by practitioners in managing clients with somatisation

The question to relate to this area was: From your experience, what are the difficulties in managing these clients? (Refer Appendix B, Q.9.5). The respondents reported a number of difficulties ranging from client characteristics, lack of clients’ acknowledgement that they have somatisation, compliance issues, lack of practitioners’ education/training, and complexity of the causes to wide variety of symptoms. Some of the comments by respondents are as follows:

“If they don't wish to be aware of the connection it can be very difficult to give them any lasting relief”

“Non compliance, ignorance, laziness, little education or realization of their functional needs and what is important for recovery”

“no direct tissue causing symptom, difficult to know what to treat, when often there are a multitude of tissues reacting in a strange way to tests”

“Compounded issues, never simple cases or people, there always are lots of underlying things, whether old injuries, illness, lack of money, job, social networks (etc) Also previous practitioners may have given differing advice and diagnoses, so patients believe they have several problems,...”

4.7.1.7 Suggestion and comments on further education in relation to somatisation.

There were four questions in relation to further educations. The first question was “Do you feel further education in relation to ‘somatisation’ would be valuable to your practice?” followed by two questions “If you answered 'Yes' to the question above, do you have any suggestions?” “If 'No', please provide your opinion or reason about this issue.” The last question was “Any other comments about your education in relation to somatisation.”

The reasons provided by respondents why further education relating to somatisation is not valuable can be classified into two patterns. One pattern is that the respondents think they have had sufficient knowledge/skills regarding somatisation, and the other pattern shows the respondents’ views that the knowledge on somatisation is not attainable through education. Some comments about the reasons are:

“I feel I have sufficient management techniques.”

“Probably because of my career background and close association with counsellors etc I have sufficient tools. On the other hand I am always open to new learning.”

“as noted to previous answers this is not an area that can be successfully taught with anticipated outcomes. the human condition is too varied for this approach to be anything but hit or miss.... and mostly miss is what I would anticipate. ...”
“None that is adequate is available!…”

A respondent who answered ‘No’ represented his strong belief that somatisation is not within the scope of osteopathic practice. The comment is:

“It is not my scope of practice and I refer in most cases anyway.”

Regarding suggestions and comments about further education, the respondents’ concerned two points. One suggestion is about the education type such as osteopathic training course or Continuing Professional Development (CPD). The other suggestion is about the contents that include counselling, Neuro-Linguistic programme and nutrition. On the other hand, some respondents commented self-development would be effective such as reading and discussion with peer group or across multi-disciplinary practitioners. A selection of comments by respondents are given below:

“CPD courses and also more specific strategies in tertiary training”

“Done as CPD and in the form of small groups, so that each practitioner can present a case and this can be discussed in detail”

“Read, and talk to other health care professionals”

4.7.2 Thematic analysis

Thematic analysis revealed two major themes, which represent the respondents’ attitudes toward somatisation in relation to identification, assessment, management and further education. The major themes revealed from the qualitative data are ‘integration’ and ‘isolation’ in respondents’ attitude toward somatisation. Table 4.5 presents the major themes and the sub-themes as identified thematic analysis.
Table 4.6: Major themes and subthemes in respondents’ attitude toward somatisation

<table>
<thead>
<tr>
<th>Theme</th>
<th>Subtheme</th>
</tr>
</thead>
<tbody>
<tr>
<td>Integration</td>
<td>Integration of psychological/cognitive constituents into osteopathic treatment</td>
</tr>
<tr>
<td></td>
<td>Modification of focus/intention in osteopathic treatment</td>
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<tr>
<td></td>
<td>Non-specific/ theoretical</td>
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<tr>
<td>Isolation</td>
<td>Scope of practice</td>
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<td></td>
<td>Lack of knowledge/skills</td>
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<td></td>
<td>Auto-sufficiency</td>
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Further discussion of the major themes and sub-themes in context with the relevance of the findings is provided in the Discussion chapter.

4.8 Chapter Summary

This chapter presented a number of strategies used by the participants, New Zealand osteopaths in identifying, assessing and managing clients with somatisation. This chapter also presented the participants’ views and attitude towards further education regarding somatisation. The thematic analysis of qualitative data found and presented two patterns of practitioners’ attitudes, ‘integration’ and ‘isolation’ toward somatisation. In the next chapter, the findings are discussed in relation to research questions in this study and relevant literature.
Chapter Five: Discussion and Thematic Analysis

5.1 Introduction

This chapter discusses the results of this study in relation to other studies’ findings based on both similar and different research contexts. Also presented are the thematic analysis results and a discussion about the salient features from the qualitative data. As mentioned in Chapter Two, different studies have used different terms for the same group of physical symptoms such as “somatisation”, “somatoform disorders” “medically unexplained physical symptoms” or “functional somatic symptoms”, reflecting particular backgrounds and views. These terms are used interchangeably in this chapter. The italic text within inverted commas that is used for discussion in this chapter denotes a direct quotation from the respondents’ answers to open-ended questions in this study.

5.2 Identification of somatisation in clients

Respondents in this study generally ‘often’ felt a need to identify somatisation in their clients, and when they felt the need, they appeared to give ‘considerable’ weight to the identification. Two possible explanations to support this result are; firstly, various studies show that there is a high prevalence of somatisation in primary healthcare (Ring et al., 2005) and secondly, the holistic philosophy of osteopathy sees disease and illness as a result of environmental, social, mental and behavioural as well as biomechanical/somatic disturbances (Schneider & Elliott, 2003).

According to Jorgensen et al., it is important for health professionals to detect psychological distress and somatisation in patients with musculoskeletal illness because these phenomena are common in these patients (2000) and highly predictive of the treatment outcome (2000). The main symptoms of clients who seek osteopathic treatment are expected to be musculoskeletal in nature. Thus, it is believed to be important for osteopaths to recognise the relationship between psychological distress and musculoskeletal symptoms, and to identify when there is somatisation in their patients in order to make a clinical decision for treatment.

Similar views were found in other health professions. One study involving chiropractors showed that the majority of practitioners agreed that emotional factors are an important consideration in the treatment of pain syndromes (S. Walker et al., 2005). Another study involving general practitioners and physiotherapists showed that stress and psychological distress were thought to be possible important contributory causes of musculoskeletal illness in many patients (Jorgensen et al., 2000a). These results reflect the widely accepted biopsychosocial views of/about health and illness that see symptoms as a result of an interaction between psychological, social, and pathophysiologic variables (Engel, 1977).
It can be concluded from the results of the current study that the majority of osteopathic practitioners in New Zealand who participated in this study acknowledge the importance of biopsychosocial views of health and illness, and that they are conscious of the importance of identifying somatisation in their clients.

### 5.3 Assessment of somatisation

The ways in which osteopathic practitioners assess somatisation in their clients were investigated in the current study. The practitioners were asked to rate selected screening tools and diagnosis methods commonly used in osteopathic treatment. The most common tool/method used was tissue palpation followed by verbal communication, cranial rhythm, and standardised assessment tools.

#### 5.3.1 Tissue palpation

All the respondents reported they used tissue palpation to diagnose somatisation. Considering that the focus of osteopathic care lies in the treatment of somatic dysfunction, this result was not unexpected. A great deal of emphasis is placed on tissue palpation as an important tool in osteopathic diagnosis and treatment.

The causes of somatisation are usually complex and multidimensional. Lederman (2005) explains that psycho-somatic conditions cover a spectrum of different phenomena such as psychological distress, behavioural disturbances and tissue damage in end organs. The findings of this study confirmed that osteopathic practitioners put greater importance on tissue dimension in their assessment of somatisation. The following comment by one respondent reinforces the view that osteopaths find the base ground for treatment from the tissue dimension:

“I can usually find a mechanical justification for one or more of the presenting symptoms (as stated in a previous Q). I would use this as a framework to make a treatment plan and gain trust in the patient and depending on outcome/progress and then finding out more about the patient, I might refer them to other practitioners or address some of the symptoms myself.”

Two similar studies of mood disorder (Sampath, 2008) and psychosocial stress (Nasrullah, 2003), found that New Zealand osteopaths mainly used interpersonal communication with the clients to assess mood disorder and psychosocial stress while this study found a higher use of tissue palpation than interpersonal communication to assess somatisation. One possible explanation for this result is that the overall diagnosis of somatisation is essentially based on the exclusion of organic causes for the somatic symptoms (Gucht & Fischler, 2002). Therefore, osteopaths are expected to identify the presented physical symptoms that may be caused by physical reasons through a palpatory assessment before they diagnose clients with somatisation. This assumption is further supported by some of the comments given in the open-ended questions in the current study:
“It is important to know if someone has real musculoskeletal issues or not. If not then the treatment will change to include other areas”.

“Must always eliminate those red flags first, I feel somatisation is a diagnosis of exclusion when it comes to being a primary healthcare practitioner”.

5.3.2 Communication

Most of the osteopathic practitioners in this study questioned their clients on how presenting symptoms relate to the client’s psychosocial distress, a result that is congruent with the results of other studies. A majority of GPs and physiotherapists considered a client’s stress and psychological distress as possible contributory causes of musculoskeletal illness (Jorgensen et al., 2000). Communication between a practitioner and a client with somatisation regarding the client’s psychosocial problems also has an effect on the choice of treatment options (Salmon, Humphris, Ring, Davies, & Dowrick, 2007). The focus of communication during an assessment is to explore potential causes of somatisation through discussion of underlying unresolved emotional issues and is reflected in the following comments:

“Need to respect the emotional fragility of the patient and explore, with them, the potential causes of their state of ‘mind’”.

“If I think that a patient’s somatic presentation relates to events/issues in their lives I'll try to get them to talk about it...”

All the respondents who held a qualification and work experience in the mental health field stated that they questioned patients about psychological aspects in relation to presenting symptoms. This result may suggest that osteopaths who have knowledge and experience in the mental health field place a greater emphasis on communication in their assessment of psychosocial factors in relation to somatisation.

Overall, osteopaths in New Zealand were found to have excellent communication skills as recognised in studies by Sampath (2008) and Nasrallah (2003).

5.3.3 Cranial rhythm

The majority of respondents considered Cranial Rhythmic Impulse (CRI) as an important assessment tool for somatisation.

It is natural for osteopathic practitioners to consider CRI an important assessment tool because the concept of Osteopathy in the Cranial Field (OCF) is a widely accepted by osteopaths and many osteopathic training institutes include OCF in osteopathic training course programmes. Furthermore,
ostearthopatic practitioners can utilise CRI in the diagnosis of mental and emotional stress and psychiatric conditions as the rate of CRI may be decreased in patients with these conditions (King & Lay, 2003). Thus, osteopathic practitioners could use CRI as an important assessment tool for the diagnosis of somatisation because osteopaths can perceive and recognise the typical changes in the CRI of clients who have psychiatric conditions that may be related to somatisation.

However, other studies show different results. Some researchers argue that CRI lacks a biologically plausible mechanism and diagnostic reliability (Hartman, 2006; Sommerfeld, Kaidera, & Klein, 2004). Halma et al. (2008) found that osteopathic physicians can obtain substantial intra observer reliability in cranial strain patterns, but they identified that CRI is less promising for diagnosis. In contrast, a recent study by Sergueef et al. (2011) demonstrated that the distribution of the palpated rate for CRI can be narrowed down as examiners become more experienced. This means that the CRI is palpable and can be used as a reliable diagnostic tool.

Despite the controversial scientific evidence, CRI is found to be an important assessment tool for the assessment of somatisation by osteopaths in New Zealand.

5.3.4 Standardised assessment tools

This study found that osteopaths in New Zealand demonstrate a low reliance on standardised assessment tools to assess somatisation. Tissue palpation together with communication is often used instead.

This result is in accordance with the result of a qualitative study by Jorgensen et al., (2000a) that found a short standard questionnaire is less efficient as a first-line screening instrument for somatisation; questioning (just asking) the client was found to increase the chance of detecting psychological distress in relation to the possible contributory causes of their musculoskeletal illness.

However, this result is in contrast with a review of 116 studies about somatisation. Most of the studies (88%) used questionnaires to determine the number and intensity of somatic symptoms (Crombez et al., 2009). The two different results may be due to the difference between a research situation and a clinical situation. According to Poleshuck et al. (2009), in research, the real-world situations of clients' lives, such as interpersonal difficulties, financial problems and exposure to violence, are often not taken into account. In contrast, in a clinical environment, practitioners often attend to how their clients' personal situations and stressors may be relevant to their clinical presentations. Therefore, it can be understood that in a clinical environment, osteopathic practitioners prefer communication over standardised assessment tools when assessing somatisation in clients.
5.3.5 Reported frequency of patients with somatisation

One-third of respondents in this study encounter a patient with somatisation ‘Often’ or ‘Very often’ while almost the same number of respondents ‘Never’ or ‘Rarely’ do. This result is congruent with other studies. A study by Ring et al., (2005) presented somatisation as common and frequent in general by showing 15-50% prevalence among primary care attendees depending on different criteria. In another study carried out by Jorgensen et al. (2000), psychological distress was more common in a population of general practice patients with musculoskeletal illness than in a population of consecutive general practice patients.

However, the frequency with which osteopaths come across patients with somatisation may vary depending on the osteopath’s views about their patients’ complaints. Because the overall diagnosis of somatisation is essentially based on the exclusion of organic causes for the somatic symptoms reported by the patient (Jorgensen et al., 2000), a number of difficult considerations arise as to whether the symptoms have a clear organic disease or ‘somatisation’. The borderline cases are those in which somatisation symptoms seem to be grafted onto an existing organic disease as well as cases in which residual symptoms remain after the organic disorder has been adequately treated (Gucht & Fischler, 2002). The ways in which these symptoms are classified can again vary depending on the outlook of the practitioner (Ring et al., 2005). Therefore, the frequency can also be recognised differently. Such patients would require long-term follow-up (Creed et al., 1990) for differential diagnosis to improve understanding and care of various somatisation symptoms (Dohrenwend & Skillings, 2009).

5.4 Management of somatisation in clients

The majority of respondents agreed that they would manage somatisation in their clients in the course of providing osteopathic treatment. This is not a surprising result, considering the holistic philosophy of osteopathy that sees a person as a unit of mind, body and spirit (Penney, 2010). In addition, according to Westmoreland et al. (2007), osteopathic treatment has psychological as well as physical effects. Physical benefits include pain relief, relief from tension and increased mobility. Psychological benefits include reassurance and an improved understanding of symptoms (Westmoreland et al., 2007). Somatisation has multi-factorial influences such as biological, psychological, interpersonal, and social factors (Henningsen et al., 2007). The findings of this study show that most osteopaths believe that osteopathic treatment can offer beneficial effects to clients in management of somatisation and influence its multi-factorial contribution.

In this study, osteopathic practitioners reported various strategies for management of somatisation that can be broadly classified into three categories for discussion: physical strategy, behavioural/cognitive strategy and referral.
5.4.1 Physical strategy

Most respondents in this study did not adopt any particular techniques for management of clients in relation to somatisation. Instead, they used a number of treatment techniques including structural, visceral and cranial or a combination of all three. An explanation for this may be that as clients with somatisation often present many different physical symptoms (Rief & Sharpe, 2004), osteopathic practitioners may need to use various techniques to offer an optimal treatment for each client’s presenting symptoms.

These results are similar to those found in a survey of chiropractors in Australia and New Zealand. Only one-third of respondents used a particular technique to treat emotional factors presented by their clients (S. Walker et al., 2005).

On the other hand, most of the respondents (85%) in this study reported that they adapt techniques for clients with somatisation. The main adaptation reported was a gentle indirect approach to ease tension and reduce general arousal. Another adaptation is to clearly explain the treatment procedure and to be attentive to how the patient responds to the treatment.

Lederman (2005) notes that manual therapy may have multiple roles in treating psychosomatic conditions depending on the practitioner’s approach. Examples of practitioners’ approaches and what they aim to achieve can be broadly outlined as follows:

- A supportive approach is the provision of general relaxing techniques that aims to reduce general arousal and reduce demand on the musculoskeletal system.
- A behavioural approach aims to promote change within the psychosomatic template through the provision of guidance on how the client can reduce tension in the musculoskeletal system in a stressful situation.
- A physical approach aims to improve physical function and promote changes in the structure of the end-system/organ.

The respondents in this study advised that they use the approaches outlined above and that the approach taken also depends on the respondent’s own views about the role of manual therapy in managing somatisation.

One respondent who focuses on a supportive approach provided the following comment:

“…some require clear identification of the 'pain' and a good rollicking soft tissue/mobilization to 'put things back' and some require gentle easing of tension. The concept applied is to reduce a concern feedback. ...”
Another respondent who places an emphasis on a behavioural approach provided the following comment:

“...I may be able to help by working with their somatic system and increasing their awareness of how they can manage the symptoms themselves.”

A respondent who focuses on a physical approach provides that:

“...So often there are physical symptoms that can help release emotional tension. My clinical experience has led me to believe that emotions are held in the body and release of these through physical treatment can be profound.”

The conclusion that most of respondents understand the roles of manual therapy in the management of somatisation and adapt their approaches to the client’s clinical situation accordingly can be drawn from the results of this study.

5.4.2 Cognitive behavioural strategy

The respondents in this study employed a number of cognitive behavioural strategies in helping their clients manage somatisation. Numerous studies have proved the effective treatment of Cognitive Behavioural Therapy (CBT) on somatisation (Allen et al., 2001; Fink et al., 2002; Smith et al., 2003). However, despite supporting empirical evidence, CBT is infrequently applied to the management of somatisation because of cost and clients’ refusal (Rief & Sharpe, 2004; Smith et al., 2003). Therefore, some researchers suggest that the use of CBT for the management of somatisation can be easily learned and effectively utilised by primary healthcare practitioners (Fink et al., 2002; Smith et al., 2003).

The use of cognitive behavioural strategy in osteopathic practice is shown in the current study, to occur mainly through communication with clients. In their communication with clients, some respondents commented that they place an emphasis on ‘explanation’ and others on ‘active listening’.

The term ‘explanation’ refers to discussing patients’ symptoms in relation to possible psychosocial and emotional attributing factors, and exploring self-management strategies for the symptoms. One related qualitative study showed that patients were most satisfied with a practitioner’s explanation for their symptoms when it made sense without blaming the patient, and when it gave ideas about self-management for the symptoms (P. Salmon, Peters, & Stanley, 1999). One such related comment in this study is:

“If mild to moderate, would seek to help the client to feel empowered and understand somatisation ie pain education etc. and talk to them about self help for mental health and monitor them closely...”
On the other hand, the term ‘active listening’ refers to encouraging clients to talk. A study conducted by Salmon et al., (2007) confirmed that facilitating patients’ psychosocial talk to describe their psychosocial difficulties was more important than a practitioners’ ability to link psychosocial difficulties to patients’ physical symptoms. In this regard, a respondent noted techniques used as:

“Providing a neutral ear so they can discharge their distress. Relaxation or breathing techniques. Active coaching/ listening so they can look at where they can shift things for themselves”

The results of this study suggest that the majority of osteopaths are aware of multi-factorial influences in the presenting physical symptoms of clients with somatisation. It can also be concluded that osteopaths recognise that CBT strategies, such as argued by Fink et al. (2002) and Smith et al. (2003), can play an important role in the management of somatisation when applied in their communication with clients.

5.4.3 Advice given

Most of the osteopathic practitioners offered some form of advice to their clients on managing their somatisation. Many of the practitioners suggested relaxation therapy including breathing, yoga and meditation, and physical activities including exercise and hobbies. Offering such advice is not surprising as it is an important part in behavioural intervention. A significant improvement in the physical and psychological symptoms of somatisation is shown in patients who receive such advice (Nakao et al., 2001).

Payne (2004) explains the positive results of relaxation as a having fundamental effect on both physical and psychological aspects of the breathing system, the muscles and thoughts and feelings. Most respondents in this study reported that they advise their clients manage their somatisation though relaxation techniques that include breathing techniques, yoga and meditation.

Most respondents in this study also advised clients take up exercise and leisure activities for the management of somatisation. Physical exercise and activities proved to be important for clients with somatisation in order to relieve the impairments affected by functional symptoms (Fink et al., 2002). This result is consistent with numerous other studies that found exercise showed positive results in primary care patients with persistent, unexplained physical symptoms by improving their symptoms and reducing primary care consultations and pharmaceutical prescriptions (Asenl, Denison, & Lindberg, 2009; Peters, Stanley, Rose, Kaney, & Salmon, 2002).

5.4.4 Referral

All respondents in this study refer their clients to other practitioners and or services regarding management of somatisation. The most frequent referral made was to a GP. The next most frequent
referral was to a complementary therapist (acupuncture / homoeopathy), followed by a counsellor/psychologist and psychiatrist/psychotherapist. The feasibility of referral for the management of somatisation depend on whether such services are available in the local area and that a referral should not offend the patient (Fink et al., 2002). The results of the current study concur with Fink’s conclusions with regard to referral, as they suggest that New Zealand osteopaths prefer to refer patients to a GP, as GPs are readily available and such a referral tends to sit comfortably with patients. In order to avoid causing possible offence to clients by referral, many osteopaths in this study discuss the referral with clients, and continue follow-up co-management. In so doing they do not stigmatise the clients by implying a mental disorder exists (Fink et al., 1999). An example of the above from the current study is relayed in the following comment:

“By trying to explain that symptoms may be due to other stresses, depending on their reaction will dictate direction of treatment or referral.”

However, many respondents in this study reported that they refer clients to complementary therapists, including acupuncturists or homoeopaths, for the management of somatisation. The same result was noted in a study conducted in Spain by Garcia Campayo and Carrillo (2000). The researchers found that for patients with somatisation the most frequently used alternative medicine was acupuncture followed by homeopathy. Acupuncture has been shown to have advantages in the treatment of functional somatic syndromes such as fibromyalgia syndrome (Goldenberg et al., 2004), and psychiatric conditions such as depression (John et al., 2006).

From the results of the current study, it can be concluded that New Zealand osteopaths are well aware of various methods of management for somatisation and refer their clients to other health professionals where appropriate.

5.5 Education with regard to somatisation

5.5.1 Previous education

With respect to previous education in relation to somatisation, the results of the current study show that the majority of respondents felt that they did not have sufficient education on how to manage clients with somatisation. This does not seem to be limited to osteopathic training programmes. According to Rosendal, Olesen and Fink (2005), most universities’ curricula, and postgraduate training programmes for general practitioners, have insufficient theoretical and practical training regarding somatisation. One comment recorded in the current study illustrates the situation:

“….However, our training does not currently provide us adequate training to totally manage a patient presenting with purely psychosocial issues. Perhaps with more training in this field, our scope could broaden slightly.”
Factors that influence somatisation range broadly from physiological and psychological to cultural and environmental. Respondents in this study thought that a variety of topics are relevant to somatisation, including theoretical considerations such as psychology, psychosocial education and psychoneuroimmunology as well as practical topics that include differential diagnosis, clinical methods and tissue memory. For example:

“We discussed psychology, psychoneuroimmunology and the physical expression of emotional issues but not specifically somatisation.”

“It was frequently referred to and discussed clinically rather than specifically taught as course content.”

5.5.2 Further education

Further education regarding somatisation is thought to be valuable for their practice by the majority of respondents in this study.

In relation to education for management of clients with somatisation, a programme developed for primary healthcare practitioners (Fink et al., 2002) has shown positive outcomes (Rosendal, Bro et al., 2005). The programme aimed to increase practitioners’ clinical proficiencies and included some general interview techniques and specific principles for the treatment of somatisation with a focus on cognitive and behavioural approaches. Many respondents in this study commented that further education should place an emphasis on practical aspects for management of clients with somatisation. This is revealed in the following comments:

“I'd prefer it to be practical rather than theoretical”.

“Done as CPD and in the form of small groups, so that each practitioner can present a case and this can be discussed in detail.”

Many practitioners suggested either a post-graduate course or Continuing Professional Development (CPD) courses for further education. In contrast, some suggested that education regarding somatisation could be provided by multi-disciplinary discussion with other practitioners. A respondent’s comment illustrates the point:

“More awareness and management/treatment strategies, across multi-disciplinary practitioners”

One respondent commented that clear guidelines are needed regarding the management of clients with somatisation. Another suggested that the Osteopathic Council organise courses in relation to somatisation. These comments may imply that respondents face a clinical dilemma about what they
can or cannot offer clients regarding the management of somatisation within the scope of osteopathic practice:

“Clear guidelines around what works best. These are the kind of clients that practitioners burn out with”

It can be concluded from the findings of the current study, that most New Zealand osteopaths feel that further education regarding somatisation would be beneficial for their practice. While they have differing opinions about how the education might be delivered, a common idea is that further education should place an emphasis on the practical aspects of management of somatisation.

5.6 The thematic analysis: practitioners’ attitudes toward somatisation

Two patterns (themes) in practitioners’ attitudes toward the management of clients with somatisation have been identified in this study: ‘integration’ and ‘isolation’. The respondents who identified with the ‘integration’ pattern hold a positive attitude toward the management of somatisation in clients. They view the management of somatisation as an integral part of osteopathic practice. In contrast, the respondents who identified with the ‘isolation’ pattern see the practice of osteopathy as limited to the physical or musculoskeletal domain and consider somatisation to be outside their scope of practice.

5.6.1 Integration

The integration of psychological/cognitive constituents into osteopathic treatment and the modification of the treatment focus or intention of osteopathic treatment were identified as the treatment approach of the respondents who identified with the integration pattern.

Some respondents reported that they consider a client’s mind and spirit in the light of the osteopathic philosophy of ‘holism’. Their attitudes, however, are not specific to somatisation.

5.6.1.1 Integration of psychological/cognitive constituents into osteopathic treatment

In this study, many osteopaths integrated CBT components in their practice for the management of clients with somatisation. According to Smith et al. (2003), a CBT model has an impact on somatised clients, and primary care practitioners learn the CBT model easily and utilise it effectively. Important elements of the CBT model include practitioner-client relationships, goal setting and negotiating a specific treatment plan and clients’ understanding of their symptoms. Osteopaths who hold an ‘integration’ attitude toward somatisation included at least one of the above-mentioned elements as an important factor in the management of clients with somatisation.
Practitioner-client relationship

There have been numerous reports written on the importance of the practitioner-client relationship in the care of somatised clients (Smith et al., 2003; Fink et al., 2002; Salmon et al., 1999). These reports highlight that communication that places great emphasis on reassurance and explanation achieves a good practitioner-client relationship (Hatcher & Arroll, 2008). A qualitative study of general practitioners’ explanations found that patients were mostly satisfied when their doctor’s explanation about their symptoms made sense to them, did not lay blame with them, and when they generated ideas about how they could manage their symptoms (Salmon et al., 1999).

In regard to communication with a client, some respondents commented that it is important to respect a somatised client’s emotional state, and others emphasised that their main focus was to make clients feel heard. One of the most important psychological aspects of the treatment programme is to make the patient feel heard and understood (Fink et al., 2002). In this regard, some comments from the respondents in the current study are:

“Need to respect the emotional fragility of the patient and explore, with them, the potential causes of their state of ‘mind’”.

“Self protection would be given greater priority”.

“A patient needs to be treated in a way that makes them feel you are listening to them and accept that what they are feeling is very real to them”.

Setting goals and negotiating a specific treatment plan

In goal setting and negotiating a specific treatment plan, the respondents indicated that they collaborate with individual clients by first setting some achievable goals with each patient. Fink et al. (2002) emphasised that treatment goals should be negotiated with clients and developed over time rather than being unilaterally prescribed. Such an approach may facilitate the working relationship between the practitioner and the client. A respondent in the current study commented in relation to goal setting and treatment planning as follows:

“Yes, in setting achievable goals over a time period and having a realistic prognosis and change over time.”

Achieving client understanding

Many of the respondents commented that they try to enhance a client’s awareness of the causes of their symptoms. They commented that if clients understand the relationship between their symptoms and their emotional state, they can promote self-management of their symptoms themselves. Often
the understanding itself resolves their emotional and physical issues (Smith et al., 2003). An example from the current study is as follows:

“... Often when the issue is identified somatisation is lessened because of the understanding of the link and not necessarily a resolution of the underlying event or cause of whakanoa....”

5.6.1.2 Modification of focus/intention of osteopathic treatment

Osteopaths integrate somatisation into their osteopathic management of clients by modifying the focus/intention of the osteopathic treatment. A modification focus is used mostly to decrease the patients’ arousal and to increase relaxation. Over-sensitisation of the nervous system and an over-reaction to stimuli are considered to be contributory factors to somatisation (Henningsen et al., 2007). The positive results of relaxation have cognitive and somatic elements that contribute fundamental effects on both physical and psychological aspects such as the respiratory system, the muscles and thoughts and feelings (Payne, 2004). Some respondents in the current study reported that they focus on the over-sensitisation of the client’s central nervous system in their assessment:

“...People with generalised pain patterns that are constantly changing means I don't look so closely for localised specific trauma such as tendon rupture. I will be working more on the sensitisation of the central nervous system through various techniques and finding a more balanced point within their system”.

Others reported that when they decide on a technique for treatment, they give priority to an indirect and gentle approach. The supportive approach as a general non-invasive therapy, aims to reduce general arousal in order to lessen the demand on the musculoskeletal system (Lederman, 2005). One respondent in the current study described this as follows:

“Working within their limits, gaining their trust. Not doing anything too direct”.

5.6.1.3 Non-specific/ theoretical

Some respondents reported that they view clients in light of the osteopathic philosophy of ‘holism’ but they did not suggest any clinical approach for the management of clients with somatisation that had aetiology beyond the biomedical reasons. Some commented that they take into account the ‘whole person’ in management of clients, and some argued that every client is unique and that the management plan should be individualised accordingly. Selected comments include:

“Part of treating the whole person”.

“Every patient is an individual and each assessment is done on an individual basis based on their presenting complaint and history”.
The questionnaire in this study did not ask for individual attitudes toward somatisation. Therefore, no further comments were formulated regarding the implication of how closely the respondents take a stand on ‘integration’ or on the borderline between ‘integration’ and ‘isolation’.

5.6.2 Isolation

The isolation pattern in current study views the role of the practitioner as being within the biomechanical domain. In this regard, somatisation is viewed as being outside/beyond the scope of osteopathic practice. Although supporters of the isolation pattern accept the concept that physical symptoms can be affected by factors beyond the physical, they do not integrate such factors into their osteopathic management of clients.

A reason for this is that some practitioners think they are not qualified to address these factors because they do not have the knowledge and skill to do so. They see the clinical intervention for somatisation as being beyond their scope of practice.

5.6.2.1 Scope of practice

Some respondents in this study commented that management of clients in relation to somatisation is beyond the osteopathic scope of practice. One comment from a respondent provides an example of such thinking:

“No I would make sure they are helped by someone qualified in this area. I will help them with their musculoskeletal issues”.

The implication of the comment is that somatisation is something best managed by other health professionals as it is beyond an osteopath’s scope of practice. However, the Osteopathic Council of New Zealand (2010), describes the scope of osteopathic practice as: “Registered osteopaths are primary healthcare practitioners who facilitate healing through osteopathic assessment, clinical differential diagnosis and treatment of dysfunctions of the whole person”. In addition, the one of basic osteopathic philosophy purports that “Body is a unit, person a unit of mind, body, spirit” (Penney, 2010, p. 42).

With such a philosophy and scope of practice in mind, osteopaths look to the ‘whole person’ as a unity of mind, body and spirit. However, as aforementioned majority of the respondents feel difficulties in dealing with clients with somatisation that arise from a lack of knowledge and clients’ compliance issues. Therefore, it is believed that provision of practice guidelines for the management of clients in relation to somatisation would be beneficial for the osteopathic practitioners. This view is reinforced by the two comments below:

“it would be great to know how much of these issues are really within our scope of practice....”
“Clear guidelines around what works best. These are the kind of clients that practitioners burn out with”.

5.6.2.2 Lack of knowledge/skills

Because they are primarily trained in a biomedical illness model, physicians feel that patients with somatisation are difficult to manage (Reid, Whooley, Crayford, & Hotopf, 2001). Therefore, they are often at a loss when this model turns out to be insufficient (Fink et al., 2002). Some respondents of this study commented that they did not attain knowledge about the management of clients with somatisation, which is why they focussed only on client’s somatic dysfunctions and referred the client to another practitioner to assist with psychosocial factors.

Fink et al. argue that when a practitioner has insufficient knowledge and skills, and little or no training in how to handle a client with somatisation, he or she may attribute the client’s complaints to random findings, overlooking the client’s psychological distress. Also, the fear of complaints and prosecution, may result in the practitioner preferring to refer the client (2002). This is illustrated in the current study with the following comment:

“It is a hard area to manage and I think osteopaths are perhaps not appropriately trained in this field to adequately manage these cases without the input of other health care practitioners who are specialised in this field”.

5.6.2.3 Negative/Auto-sufficiency

Of those who answered that further education in relation to somatisation would not be valuable, some thought that it is difficult to learn such knowledge in a formal setting. They commented that the concept of ‘somatisation’ has multiple factors that include personal experience and way of thinking that cannot be prescribed and learned easily through formal education. However, some CBT models that can be readily learned and effectively deployed by primary care practitioners are likely to result in the effectiveness in management of clients with somatisation (Fink et al., 2002; Smith et al., 2003).

Some other respondents commented that they do not need further education regarding somatisation because they believe they have sufficient experience and knowledge/skills in this regard. However, this study also identified that more experienced osteopaths experience more difficulty in dealing with clients with somatisation than less experienced practitioners do. This result may indicate that the length of clinical experience does not necessarily build a practitioner’s confidence in dealing with clients with somatisation.
5.7 Chapter Summary

This chapter discussed the major findings of this study. The findings suggest that the majority of osteopathic practitioners in New Zealand are conscious of the importance of identifying, assessing and managing somatisation in their clients and have an acceptance of biopsychosocial views on health and illness. The majority of New Zealand osteopaths manage a client with somatisation by employing cognitive behaviour components in osteopathic treatment and/or by modifying the focus/intention in osteopathic treatment.

Two identified patterns or themes regarding osteopaths’ attitudes toward management of somatisation were ‘integration’ and ‘isolation’. It is suggested that more education and training with a focus on practical knowledge and skills for management of somatisation in clients would be beneficial for osteopathic practitioners.

The next chapter presents the implications of this study, the limitations of this study, and the potential areas for future research.
Chapter Six – Conclusion

6.1 Introduction

This chapter discusses the implications of the findings of this study for the osteopathic profession, the limitations of this study and possible suggestions for further research.

6.2 Implications for osteopathic practitioners

The New Zealand osteopaths in this study responded that they often come across clients with somatisation, and most think that it is difficult to manage such clients. Some comments given show that major difficulties can arise from a lack of knowledge and understanding of somatisation and that this can result in lowered confidence when managing clients with somatisation. When we consider the high prevalence of somatisation among clients with musculoskeletal problems, along with the fact that iatrogenic factors such as misdiagnosis, unhelpful treatment and attitude can contribute to the maintenance or exacerbations of somatisation, it becomes apparent that practitioners’ competence in management of their clients with somatisation is important to ensure client safety and effective treatment outcome.

Given the findings of this study, three areas have been identified as areas where osteopathic practitioners might increase their understanding in relation to somatisation:

- Awareness of clients’ presenting physical symptoms that are influenced by multi-dimensional contributors including biological, psychological, behavioural and cultural factors.
- The role of osteopathic manual treatment in management of somatisation related to different aspects of contributing factors including the psychological and behavioural as well as the biophysiological factors.
- Cognitive behavioural management strategies for the management of clients with somatisation, which can be easily and effectively integrated into osteopathic treatment by osteopathic practitioners. The CBT models developed by Fink et al. (2002) and Smith et al. (2003) may be good examples for discussion.

Many of the respondents suggested self-development approaches including group discussion with multidisciplinary professions as an effective way to increase the level of knowledge regarding somatisation. One respondent emphasised the importance of such an approach: “Practise practise practise. Have good intent, develop your own integrity....”
6.3 Implications for the osteopathic profession

The findings of this study imply that there is a clinical dilemma among osteopaths regarding the scope of practice for management of clients with somatisation. The principles of osteopathy emphasise the concept of ‘holism’ in osteopathic treatment. Hence, osteopathic practitioners look to address clients’ psychological and behavioural contributing factors, as well as physical symptoms within the client’s social context in order to promote healing.

In this study, the majority of respondents considered the management of somatisation as an integral part of osteopathic management of clients. However, some respondents considered that the management of somatisation is beyond their scope of practice. The dilemma seems to arise when the awareness of what an osteopath can or cannot offer clients regarding management of somatisation that has multifaceted aetiologies is unclear. This dilemma is well illustrated in the following comments: “Clear guidelines around what works best. These are the kind of clients that practitioners burn out with.” “Council can get some courses organised!”

This clinical dilemma may affect an osteopathic practitioner’s clinical decision of how they manage clients with somatisation. Hence, osteopathic practitioners may narrow down the scope of their practice to the musculoskeletal domain or, alternatively, make a referral for the management of somatisation in clients. Considering the high prevalence of somatisation in primary care, especially in clients with musculoskeletal problems, the clinical dilemma together with the osteopathic practitioner’s perception may have significance for osteopathic practice. It is suggested therefore, further discussion and provision of clinical guidelines that include more information such as what techniques work best and when and whom to refer will be beneficial to the practice of osteopathy in the management of clients with somatisation.

6.4 Implications for education providers

Education providers could include somatisation modules in the curriculum. It is noted that the addition of such teaching material to an already crowded curriculum may have complex implications, not least for student workload. However, considering the high prevalence of somatisation among clients with musculoskeletal problems, and the possible iatrogenic factors that can arise from a practitioner’s lack of knowledge, it is necessary for osteopathic practitioners to have good knowledge of somatisation to be able to incorporate comprehensive strategies into the management of clients with somatisation.

Clients with somatisation may have unexplained clinical features when assessed through the biomedical paradigm. Fink et al. (2002) notes that practitioners are often at a loss when this approach turns out to be insufficient. A respondent of this study with less than three years’ experience in
osteopathic practice illustrated her difficulties as follows: “no direct tissue causing symptom, difficult to know what to treat, when often there are a multitude of tissues reacting in a strange way to tests”.

Many respondents in this study commented that during their training they felt they did not receive sufficient education on the topic of somatisation to be able to confidently manage clients who present with somatisation. Hence, as noted above, this study suggests that osteopathic education providers further investigate incorporating theoretical and practical education on the topic of somatisation into the osteopathic training programme. With an increased knowledge of the topic, osteopathic students may be better equipped to diagnose and manage somatisation in clients.

6.5 Limitations of the study

This research has some limitations. One of the limitations is the low rate of response (17 per cent) from the participants in this study. The results drawn from a small number of responses are not sufficient to provide acceptable significance and generalisability. The small sample size in this study made some advanced statistical tests difficult.

This study also contains structural limitations. A few questions lacked clarity in instruction and wording. Therefore, respondents were at points confused about the selection of their answer. For example, one respondent pointed out that the terms in the Likert scale, ‘Never’, ‘Rarely’, ‘Occasionally’, ‘Often’, ‘Very often’ do not represent an appropriate interval of the frequencies. The same respondent suggested a term ‘Regularly’ be used in place of the term ‘Occasionally’.

Finally, the results of this survey may have been skewed by a higher response rate from those interested in somatisation and therefore more positive in attitude toward the topic.

Despite the limitations outlined above, as this is the first study on the topic of somatisation with New Zealand osteopaths, it may be used as a reference point for future studies. In this regard, the study may be considered as a starting point for more research in an area of osteopathic care that has not been investigated so far.

6.6 Suggestions for further research

The findings of this study together with the literature reviewed suggest that there is a high prevalence of somatisation in primary care, especially in clients with musculoskeletal problems. It would be desirable to investigate the prevalence of somatisation in clients at osteopathic clinics using a standardised assessment tool (e.g. questionnaire). If the results present a high prevalence of somatisation in clients who present at osteopathic clinics, then further discussion about clinical guidelines for osteopathic management of these clients may result.
The results of this study show different osteopathic practitioners’ attitudes toward management of somatisation. As an extension of this study, a qualitative study using an interview could explore osteopaths’ attitudes toward somatisation on a deeper level. Such a study may guide further discussion about the management of somatisation by osteopathic practitioners in relation to the scope of osteopathic practice.

Somatisation is a phenomenon influenced by multi-factorial contributors including environmental and cultural factors. Effective communication between a practitioner and a client is the central element in diagnosis and treatment of somatisation. Considering New Zealand is a multi-cultural society, it would be interesting to explore osteopathic practitioners’ perceived difficulties in treatment of clients with a cultural background different to their own and, in turn, the clients’ perceived difficulties during osteopathic treatment.

6.7 Chapter Summary

This study described and explored how osteopaths in New Zealand identify, assess and manage clients with somatisation. This study also enquired about the education practitioners received on the topic of somatisation as well as their attitudes towards further education on the topic. The results showed that New Zealand osteopaths acknowledge the importance of the identification and management of somatisation in clients. However, there are differing views among the osteopathic practitioners regarding treatment for managing clients with somatisation within the osteopathic scope of practice. In light of the results, this study suggests there is a need for further discussion on clinical guidelines for osteopathic practitioners regarding the management of clients with somatisation. Further education/training in relation to somatisation would also be beneficial for osteopathic practitioners to foster both improved treatment outcomes and the safety of clients.
Reference


Brink, P. J., & Wood, M. J. (2001). *Basic steps in planning nursing research* (5th ed.). London, UK: Jones and Bartlett


Appendix

Appendix A: Information e-mail

Dear participant,

Hello, my name is Dominic You. I am a fifth year osteopathic student at Unitec, undertaking a research dissertation as part of my Master of Osteopathy. I would like to invite you to participate in my study, “Identification, assessment and management of somatisation in patients of osteopathic practitioners in New Zealand”. My supervisors, Clive Standen and Geoff Bridgman will guide this study and have access to the data for this purpose.

Somatisation, a phenomenon in which patients present with symptoms that are not clearly explained by known or investigated pathophysiology which probably have a very strong psycho-social genesis, is common in all cultures and countries. According to various researches, around 20-30% of primary care attendees are for somatic symptoms that are not explained by conventionally defined diseases. The physical manifestations of somatisation include pain and neurological symptoms, which are common symptoms in patients who seek osteopathic treatment.

The purpose of the study is to explore how osteopaths in New Zealand identify, assess and manage somatisation in their patients, and what sort of education these practitioners have had previously and wish to receive further in regards to somatisation.

We have generated an online survey and the link is provided in this email. The survey can be accessed at any time and takes about 20 minutes to complete. The questionnaire contains both close-ended and open-ended questions about your clinical approaches and education relating to somatisation. The questionnaire will also ask demographic questions BUT YOUR NAME WILL NOT BE REQUESTED OR RECORDED.

The questionnaire will be sent to all members of OSNZ and ISOP. By taking part, you will be helping the profession to generate a basis of knowledge about how New Zealand osteopaths approach the patients with somatisation and their education in regards to somatisation. This will enhance the profession’s discussion and potentially influence osteopathic training in the future. A copy of the outcome of this survey will be available to you should you be interested and the results of this study may be published in relevant journals.

Participation in this survey is completely voluntary and your responses will be collected anonymously using an online survey software. Return of questionnaires will be taken as IMPLIED CONSENT for participation in the study.

During the questionnaire you have the option to exit the survey via the 'exit survey' icon and re-enter by following the link again. The link will take you to where you left the survey and you may continue.
Please remember this is not assessing your knowledge. There are no anticipated risks involved in this study as we are asking for your views and opinions. However, if you do have questions about the study do not hesitate to contact any of the investigators below:

Dominic You
021 209 5018
dominicyou@hotmail.com

Clive Standen
cstanden@unitec.ac.nz
09 815 4321 ext 5192

Geoff Bridgman
gbridgman@unitec.ac.nz
09 815 4321 ext 5071

UREC REGISTRATION NUMBER: 2010 - 1119
This study has been approved by the UNITEC Research Ethics Committee from 17/11/2010 to 16/11/2011. 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 6162). Any issues you raise will be treated in confidence and investigated fully, and you will be informed of the outcome.
Identification, assessment and management of somatisation in clients of

1. Information

Thank you for taking part in this research project.

This questionnaire is divided into three sections:

Section 1 is related to your practice in terms of identification, assessment and management of somatisation in your clients.

Section 2 is concerned with your osteopathic and other professional education in relation to somatisation.

Section 3 is concerned with some general information about you.

Definition of somatisation in this research project

A phenomenon in which the patient's physical symptoms that are NOT clearly explained by known or investigated pathophysiology and which are probably have a strong psycho-social genesis. These could manifest as pains (e.g., head, abdomen, back, joints, etc.), gastrointestinal (e.g., nausea, bloating, vomiting, diarrhoea, etc.), sexual (e.g., sexual indifference, erectile or ejaculatory dysfunction, irregular menses, etc.), pseudo neurological (e.g. impaired coordination or balance, paralysis, difficulty swallowing, urinary retention etc.) symptoms.
Identification, assessment and management of somatisation in clients of

1. This question is to help you get a depiction of a client with somatisation for this research project, NOT for data analysis. Please select one of your clients and assess the patient briefly in your mind with the following questions (Four-Dimensional Symptom Questionnaire, 4DSQ). If the total score is more than 10, the patient can be thought of as currently having somatisation. Each question refers to the complaints and symptoms which relate to somatisation that the client has had in the past week prior to visit your clinic.

<table>
<thead>
<tr>
<th>Question</th>
<th>No(score:0)</th>
<th>Sometime(score:1)</th>
<th>Often/Regularly(score:2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Dizziness or feeling light-headed?</td>
<td></td>
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<td></td>
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<tr>
<td>2. Painful muscles?</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>3. Fainting?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Neck pain?</td>
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<tr>
<td>5. Back pain?</td>
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<td></td>
<td></td>
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<tr>
<td>6. Excessive sweating?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Palpitations?</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>8. Headache?</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>9. A bloated feeling in the abdomen?</td>
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<td></td>
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</tr>
<tr>
<td>10. Blurred vision or spots in front of your eyes?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. Shortness of breath?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12. Nausea or an upset stomach?</td>
<td></td>
<td></td>
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<tr>
<td>13. Pain in the abdomen or stomach area?</td>
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<tr>
<td>14. Tingling in the fingers?</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>15. Pressure or a tight feeling in the chest?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16. Pain in the chest?</td>
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</tbody>
</table>

Total score (Please sum the score of each question and write it below); Interpretation of score ( >10: moderately elevated, >20: strongly elevated somatisation)

2. Section 1: Your practice in relation to the clients with somatisation

Identification
## Identification, assessment and management of somatisation in clients of

1. When you are listening to the presenting complaints and medical histories of your clients, are there instances when you feel there is a need to identify somatisation in the clients?
   - [ ] Never
   - [ ] Rarely
   - [ ] Occasionally
   - [ ] Often
   - [ ] Very Often

2. When you feel there is a need to identify somatisation in your clients, how much weighting do you give to the identification of somatisation?
   - [ ] Not at all
   - [ ] A little
   - [ ] Some
   - [ ] Considerably
   - [ ] A great deal

2. How often do you come across the clients with somatisation who may have a total score more than 10 in Q1 from the introducing page (the 1st page)?
   - [ ] Never
   - [ ] Rarely
   - [ ] Occasionally
   - [ ] Often
   - [ ] Very Often

4. Assessment
Identification, assessment and management of somatisation in clients of

1. If you identified/suspected somatisation in a client from his/her presenting complaints and medical histories, would that influence the way you assess the client?

- Yes
- No

Please provide your opinion about the reason for choosing your answer above

2. Do you question your clients on somatisation issues (e.g. How the presenting symptoms are related to the client’s psychosocial distress)?

- Yes
- No

3. Do you use any of the following assessment tools to assess somatisation in your clients?

<table>
<thead>
<tr>
<th>Tool</th>
<th>Never</th>
<th>Rarely</th>
<th>Occasionally</th>
<th>Often</th>
<th>Very Often</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard physical symptoms questionnaire</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Structured diagnostic interview</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Other (Please specify below)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

4. Do you use any of the following osteopathic or manual diagnostic tools to assess somatisation in your clients?

<table>
<thead>
<tr>
<th>Tool</th>
<th>Never</th>
<th>Rarely</th>
<th>Occasionally</th>
<th>Often</th>
<th>Very Often</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tissue palpation</td>
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<td></td>
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<tr>
<td>Cranial rhythm</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Other (Please specify below)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
5. Do you use any other clinical method to assess somatisation in your clients?

<table>
<thead>
<tr>
<th>Other (Please specify below)</th>
<th>Never</th>
<th>Rarely</th>
<th>Occasionally</th>
<th>Often</th>
<th>Very often</th>
</tr>
</thead>
</table>

Other

5.

Management

1. If you identified any somatisation in your clients which you think needs clinical attention, would you attempt to help or manage your clients regarding this issue?

- Yes
- No

Please provide your opinion about the reason for choosing your answer above

6.

1. Do you adopt a specific osteopathic treatment approach for patients with somatisation symptoms?

- Yes
- No

7.

1. Which of the following approaches do you adopt?

<table>
<thead>
<tr>
<th>Structual treatment</th>
<th>Never</th>
<th>Rarely</th>
<th>Occasionally</th>
<th>Often</th>
<th>Very often</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cranial treatment</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Visceral treatment</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Combination of all the above</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
2. Do you adapt your treatment approach for these clients?
   - Yes
   - No

   If 'Yes' how? And please provide your opinion regarding the adaptation of treatment approach for these clients.

3. Do you give any advice to your clients about managing somatisation symptoms?
   - Yes
   - No

8.

1. Which of the following advice would you give to your clients about managing somatisation symptoms?
   - Relaxation techniques
   -Behavioural/cognitive strategies
   - Breathing techniques
   - Exercise
   - Hobby activities
   - Yoga or meditation
   - Other (Please specify below)
   - Other

   Never | Rarely | Occasionally | Often | Very often
   --- | --- | --- | --- | ---
   [ ] | [ ] | [ ] | [ ] | [ ]

2. Do you refer your clients with somatisation to another health practitioner or program?
   - Yes
   - No

   If 'No', please provide the reason.

9.
### Identification, assessment and management of somatisation in clients of

#### 1. Who do you refer your client to?

<table>
<thead>
<tr>
<th></th>
<th>Never</th>
<th>Rarely</th>
<th>Occasionally</th>
<th>Often</th>
<th>Very often</th>
</tr>
</thead>
<tbody>
<tr>
<td>GP</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Counsellor/Psychologist</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Psychiatrist/Psychotherapist</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Acupuncture/Homeopath/Naturopath</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Other (Please specify below)</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

Other

---

#### 2. Do you attempt to help or manage your clients in any other way(s) than above (treatment, advice, referral)?

- ☐ Yes
- ☐ No

If 'Yes', please provide the details

---

#### 3. To what extent do you agree with the following statement? 'Osteopathic treatment helps clients who have somatisation issues.'

- ☐ Strongly disagree
- ☐ Disagree
- ☐ Neither agree nor disagree
- ☐ Agree
- ☐ Strongly agree

Please provide your opinion about the reason for choosing your answer above

---

Page 7
**Identification, assessment and management of somatisation in clients of**

4. **How difficult do you feel it is to manage clients with somatisation?**
   - [ ] Not at all
   - [ ] A little
   - [ ] Some
   - [ ] Considerably
   - [ ] A great deal

5. **From your experience, what are the difficulties in managing these clients?**

![Blank Text Box]

---

**10. Section 2: Your previous education in relation to ‘somatisation’**

1. **During your osteopathic education, did you have specific education (course content) in relation to somatisation (e.g. the effects of psychological, behavioural and social variables on health, illness, and disease)?**
   - [ ] Not at all
   - [ ] A little
   - [ ] Some
   - [ ] Considerably
   - [ ] A great deal

   If you answered other than ‘not at all’, please provide some details

![Blank Text Box]

2. **Do you feel this specific education has prepared you adequately to begin to manage clients in relation to somatisation?**
   - [ ] Not at all
   - [ ] A little
   - [ ] Some
   - [ ] Considerably
   - [ ] A great deal
<table>
<thead>
<tr>
<th>Question</th>
<th>Options</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>3. Other than osteopathic education, do you have any other qualification/education in the field of mental health?</td>
<td>Yes, No</td>
<td>If 'Yes', please provide some details</td>
</tr>
<tr>
<td>4. Do you feel further education in relation to 'somatisation' would be valuable to your practice?</td>
<td>Yes, No</td>
<td>If 'No', please provide your opinion about the reason</td>
</tr>
<tr>
<td>5. If you answered 'Yes' to the question above, do you have any suggestions?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Any other comments about your education in relation to ‘somatisation’</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**11. Section 3: General information**

<table>
<thead>
<tr>
<th>Question</th>
<th>Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. What is your gender?</td>
<td>Male, Female</td>
</tr>
</tbody>
</table>
### 2. Institution where you qualified as an osteopath:

<table>
<thead>
<tr>
<th>Institution</th>
<th>Tick One</th>
</tr>
</thead>
<tbody>
<tr>
<td>British College of Osteopathic Medicine, United Kingdom</td>
<td></td>
</tr>
<tr>
<td>British College of Osteopathy and Manipulation, United Kingdom</td>
<td></td>
</tr>
<tr>
<td>British School of Osteopathy, United Kingdom</td>
<td></td>
</tr>
<tr>
<td>College of Osteopaths, United Kingdom</td>
<td></td>
</tr>
<tr>
<td>European School of Osteopathy, United Kingdom International</td>
<td></td>
</tr>
<tr>
<td>College of Osteopathy, Australia</td>
<td></td>
</tr>
<tr>
<td>London College of Osteopathic Medicine, United Kingdom</td>
<td></td>
</tr>
<tr>
<td>London School of Osteopathy, United Kingdom</td>
<td></td>
</tr>
<tr>
<td>Osteopathic College of New Zealand, New Zealand</td>
<td></td>
</tr>
<tr>
<td>Oxford Brookes University, United Kingdom</td>
<td></td>
</tr>
<tr>
<td>Phillip Institute of Technology, Australia (pre 1993)</td>
<td></td>
</tr>
<tr>
<td>Royal Melbourne Institute of Technology, Australia (RMIT), Australia</td>
<td></td>
</tr>
<tr>
<td>South Pacific College of Naturopathy and Osteopathy, New Zealand</td>
<td></td>
</tr>
<tr>
<td>Surrey Institute of Osteopathy</td>
<td></td>
</tr>
</tbody>
</table>
Identification, assessment and management of somatisation in clients of

| Osteopathic Medicine, United Kingdom                                           |  |
| Sydney College of Osteopathy, Australia                                      |  |
| Unitec New Zealand, New Zealand                                             |  |
| University of Western Sydney, Australia                                      |  |
| Victoria University, Australia                                               |  |
| Windsor College, Australia                                                   |  |
| Other (Please specify below)                                                 |  |

Other

3. For how many years have you been in osteopathic practice?

- [ ] 0-3
- [ ] 4-10
- [ ] 11-20
- [ ] 21-30
- [ ] More than 30

4. What kind of area do you practice?

- [ ] City(>200000)
- [ ] Large town(10000-20000)
- [ ] Small town(<10000)
- [ ] Rural village
- [ ] Other (please specify below)

Other

12. Thanks

Thank you for your participation!
Appendix C: Approval letter from the Ethics Committee

Dominic You
23 Rata Road
Whenuapai
Waitakere 0618

23rd November 2010

Dear Dominic

Your file number for this application: 2010-1119
Title: Identification, assessment and management of somatisation in patients of osteopathic practitioners in New Zealand

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: 17 November 2010
Finish date: 16 November 2011

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

K Jones

Lyndon Walker
Deputy Chair, UREC

Cc: Clive Standen
Cynthia Almedia