ABSTRACT

Like acupuncture, dry needling involves the insertion of acupuncture needles into specific points on the body to improve health. Unlike acupuncture, the practice of dry needling is unregulated in Australia. This paper challenges the notion that dry needling is not a part of acupuncture practice and also examines the risks associated with the practice of dry needling from a public health perspective. The practice of acupuncture and dry needling are first examined and compared to identify commonalities. A review into the incidence of risks of dry needling reveals very limited literature with only one case report and no review articles identified. Based on the similarities between acupuncture and dry needling, the extensive literature on the serious risks of acupuncture is extrapolated to evaluate the risks of dry needling. Dry needling is not a new or separate practice to acupuncture; rather it is a subsystem of musculoskeletal acupuncture which has been practised continuously for at least 1400 years. Dry needling is a pseudonym for a brief course of study in myofascial acupuncture also known as *ashi* acupuncture and trigger point acupuncture. Dry needling is likely to result in an increased incidence of serious risks, particularly pneumothorax, due to the short training courses and deep needling techniques which typify the practice. In the interest of public health and safety, the practice of dry needling should be restricted to suitably qualified practitioners.

KEYWORDS acupuncture, dry needling, myofascial acupuncture, trigger point acupuncture, education standards, regulation, serious risk, physiotherapy, Australia.

Background

Australia became the first country in the western world to implement the statutory regulation of acupuncture under a restriction of title system in the State of Victoria in 2001. The current minimum standard for acupuncture registration with the Chinese Medicine Registration Board of Victoria is the completion of an approved four to five year bachelor's degree or a three year graduate-entry master's degree. This same standard had been used in Victoria for acupuncture endorsement by the other health professions, except for chiropractors and medical practitioners which have adopted a lower standard.

Although at present limited to just one State, statutory regulation of the acupuncture profession will be extended to a uniform national system—the National Registration and Accreditation Scheme for the Health Professions (NRAS)—from 1 July 2012. NRAS provides for a separate board for each of the 14 registered health professions. Under the Health Practitioner National Law Act 2009, it is an offence to use a restricted title or to hold out to practise in a registered health profession unless the practitioner is suitably registered or endorsed to do so. Unique to this scheme is that, in addition to the Chinese Medicine Board of Australia (CMBA), each of the other 13 boards may (but is not obliged to) develop its own standard for acupuncture endorsement. A registered health practitioner who meets their respective board's acupuncture endorsement standard may have their registration endorsed.
as such (after 1 July 2012) and will be able to use the title ‘acupuncturist’ even though they are not registered with the CMBA. The Physiotherapy Council of Australia is developing an accreditation standard for acupuncture endorsement under the NRAS on behalf of six other national boards, to take effect from 1 July 2012.

Introduction

The statutory regulation of acupuncture which commenced in 2001 in the State of Victoria followed research demonstrating that serious risks to public health and safety were posed by acupuncture and that these risks could be addressed by regulation. This proposition had to be demonstrated again in 2008 as a prerequisite for acupuncture and Chinese medicine to be incorporated into the NRAS. Since 2002 there has been an increase in the practice of acupuncture under the term ‘dry needling’. Both registered and unregulated practitioners commonly complete two or three day courses under the titles ‘dry needling’ or ‘myofascial dry needling’ rather than completing the three to four year degree programs leading to registration or endorsement as an acupuncturist. Provided they do not use the protected title ‘acupuncturist’ nor hold out (advertise) to practise acupuncture, these practitioners operate outside the standards-setting or regulatory environment which protects the public from poorly-practised acupuncture.

Practitioners of dry needling claim that they are not practising acupuncture as their practice is based upon biomedical research into the treatment of myofascial trigger points (MTrPs) and has no relationship with classical Chinese acupuncture theory and practice. It is claimed that the only similarity between dry needling and acupuncture is the use of the same tool (the acupuncture needle). This paper will examine the serious risks of dry needling and acupuncture to identify if the practice of dry needling poses lesser risks than the practice of acupuncture and therefore should not be subject to regulation. The proposition that dry needling is a pseudonym for the practice of musculoskeletal acupuncture and should be regulated under the existing acupuncture provisions of the NRAS will also be evaluated.

Acupuncture

Acupuncture involves the insertion of fine solid acupuncture needles into specific points on the body to improve health. The selection of points may be based upon traditional medical systems, biomedical research into point functions, or point prescriptions. Despite acupuncture’s long history of practice originating in China, its biomedical mechanism(s) are not fully understood. Traditional explanatory models of acupuncture relate to the concepts of qi, blood, and channels (meridians). Stimulating an appropriate acupuncture point removes restriction to the flow of qi and blood in the channels, restores unobstructed circulation and benefits health. Acupuncture points can affect the local tissue in which they are located or have effects on distant parts of the body or on systemic function. Acupuncture is traditionally used for pain and tissue trauma as well as for systemic health complaints. A wide variety of needling techniques and non-needle point-stimulation methods may be used. This classical Chinese understanding of the mechanism of acupuncture and its therapeutic application initially developed without an understanding of modern biomedical perspectives of anatomy and physiology.

A biomedical understanding of the mechanism of acupuncture has been sought since at least the mid 1940s. Immuno-inflammatory mechanisms, hypothalamic-pituitary axis influence, pain control via endogenous pain control systems, neuroplasticity, and myofascial trigger points are all thought to be involved, although none of these models fully explain how acupuncture works. Practitioners who emphasise a biomedical understanding of acupuncture in their practice often refer to their practice as ‘medical acupuncture’ or ‘western acupuncture’.

It is also possible that the classical acupuncture channels may actually exist in some physical form. Research is exploring the role of connective tissue and the correlation of fascia to the acupuncture channels. In such a model the ‘qi’ of Chinese medicine may relate to a combination of nerve signals, the flow of pacacrine signalling molecules, electrical signalling through gap junctions among perineural cells and the distribution of mechanical forces. Should the role of fascia be found to correlate with classical meridians, then much of the current biomedical research may need to be re-interpreted in a holistic model, perhaps in a way similar to the classical Chinese model.

Dry needling

Dry needling has been variously defined according to its context. Initially the term ‘dry needling’ was used to differentiate the insertion of a solid acupuncture needle into the body for therapeutic effect from the injection of a substance through a hollow needle. In the text Medical Acupuncture, Bekkering and van Bussel explain “Acupuncture is in principle a ‘dry’ therapy as no pharmacological substances are administered through the needle.”. ‘Dry’ acupuncture works neurophysiologically differently to ‘wet’ acupuncture where local anaesthetic is usually injected into a point.

In contemporary literature the term ‘dry needling’ is typically used to refer to the needling of MTrPs with an acupuncture needle. MTrPs are ‘hyperirritable spots in skeletal muscle that are associated with a hypersensitive palpable nodule in a taut band’. When a needle is inserted into a MTrP a local twitch
response occurs as well as referred pain.\textsuperscript{29} MT\textsuperscript{r}Ps are associated with myofascial pain syndrome (MPS), a common source of acute and chronic pain worldwide.\textsuperscript{29} MT\textsuperscript{r}Ps were first described in the West by John Kellegren in 1938.\textsuperscript{31} He identified small tender points in muscle which reproduced the pain of myalgia when pressed. This pain was typically felt away from the point rather than just locally and would resolve when injected with a local anaesthetic. Janet Travel later termed these points trigger point and labelled the pain associated with them MPS.\textsuperscript{27}

The practice of deactivating trigger points with local anaesthetics (wet needling) remains common.\textsuperscript{32} However, in 1979 Carl Lewit had demonstrated that inserting a dry needle deeply and accurately into a MT\textsuperscript{r}P was effective in treating musculoskeletal pain.\textsuperscript{27} Over the past decade or so\textsuperscript{33} the use of dry needling (acupuncture) has become popular to treat MT\textsuperscript{r}Ps.\textsuperscript{34} Physical therapists practise dry needling throughout the world.\textsuperscript{35} In Australia, dry needling courses are offered to physiotherapists, chiropractors, osteopaths, podiatrists, medical practitioners, nurses, massage therapists and other health professionals.\textsuperscript{3} Part of the popularity of dry needling may be linked to the ease with which acupuncture needles can be obtained by non-medical practitioners compared to the restrictions based on obtaining or injecting local anaesthetics.\textsuperscript{12}

The term dry needling is not only concerned with MT\textsuperscript{r}Ps. Dr Chan Gunn has developed another system for treating MPS and other conditions which he has named Intramuscular Stimulation (IMS) to differentiate it from other needling practices.\textsuperscript{22,36} Gunn proposes that examination, diagnosis, and treatment with acupuncture needles should be based on a radiculopathy model.\textsuperscript{38} In this model taut bands in muscles are treated with acupuncture needles and special attention is given to releasing shortened paraspinal muscles that may be compressing a disc, irritating a nerve root and, according to Gunn, initiating the distal muscle pathology.\textsuperscript{12,36} Points are used both locally at the affected spinal segment as well as distally within the respective dermatome or myotome.\textsuperscript{39}

Acupuncture and dry needling

Numerous needling methods incorporating the approach of both MT\textsuperscript{r}P and IMS are described in both classical and contemporary Chinese acupuncture literature. In the classical Chinese medical model MT\textsuperscript{r}P are referred to as \textit{ashi} points and were described by Sun Si Miao in the Thousand Ducat Prescriptions in 652 CE.\textsuperscript{33,34} Baldry\textsuperscript{11} states that trigger point acupuncture is the same as this continuously-practised ancient \textit{ashi} acupuncture. In ancient texts cutaneous, shallow and deep acupuncture methods are described for treating numbness of the skin, muscle constriction, spasms and pain.\textsuperscript{39} The repeated needling and reinserting of a needle into a muscle in different directions to treat pain, numbness and debility of muscle tissue is described as one of the ancient five needling methods.\textsuperscript{38} This latter approach seems similar to that used by Gunn.\textsuperscript{37} Biomedical research into acupuncture and, in particular, the relationship between spinal segments and dermatomes or myotomes was reported in 1975 and was a component of a standard acupuncture textbook in 1981.\textsuperscript{39}

Injection therapy was considered a relatively new treatment in Chinese acupuncture in 1974\textsuperscript{40} and is indicated for ‘positive response points’ which may be flat, round, strand like or nodular in shape.\textsuperscript{46} Positive response points should be searched for by light palpation over the back, chest, abdomen and limbs. Of particular importance are the points on the channels which are 0.5 units and 1.5 units lateral to the spine respectively.\textsuperscript{46} These points themselves resemble MT\textsuperscript{r}P and the systematic approach of examination and treatment is conducted without particular regard to other classical concepts such as qi and blood. These points and their selection seem similar to the systematic approach of examination and treatment, especially paying attention to spinal pathology, advocated by Gunn for his IMS system.\textsuperscript{36}

Gunn states that IMS is not acupuncture because ‘IMS requires a medical examination and diagnosis by a practitioner knowledgeable in anatomy, needle insertions are indicated by physical signs and not according to pre-defined, non-scientific meridians, while subjective and objective effects are usually experienced immediately’.\textsuperscript{41} The biomedical approaches to acupuncture practice are considered by some to be superior to the archaic and mystical foundations of classical Chinese acupuncture.\textsuperscript{32} Others support the view that the traditional Chinese model has no basis in science\textsuperscript{45} and that Chinese acupuncture theory is just too hard to learn.\textsuperscript{44} Dommerholt, del Moro and Grobli\textsuperscript{12} note that some patients erroneously think that MT\textsuperscript{r}P dry needling (TrP-DN) is acupuncture but assert that they are wrong because, in their view, the practice did not originate from traditional Chinese acupuncture, is based on neurophysiologic principles, and has no similarity with regulating the flow of energy. Dommerholt et al\textsuperscript{12} assert that, although Gunn used the term acupuncture instead of IMS in earlier papers, his thinking was not based on Chinese acupuncture theory but on neurology and segmental relationships, and therefore that IMS is not acupuncture.

Acupuncture by another name

Denials that TrP-DN and IMS are acupuncture seem difficult to sustain. Gerwin notes that Acupuncture trigger point needling is identical to the dry needling technique described by physical therapists, physicians and others.\textsuperscript{12} Trigger point acupuncture is also considered to be part of medical acupuncture,\textsuperscript{22} is taught as part of western acupuncture,\textsuperscript{23} and is the same as classical \textit{ashi} acupuncture.\textsuperscript{31} Gunn’s comments regarding the need for
A distinction offered for TrP-DN and IMS to be considered separate to acupuncture is its foundation in biomedical theory and neurophysiologic explanations of the mechanism of action. Despite research into hypotheses of the mechanisms of action of needling a MTriP, the mechanism remains unknown, and the aetiology of MTriP remains speculative. The detection of MTriPs is based solely on the clinician’s palpatory skills with no objective diagnostic criteria validated. Rather than being based in scientific theory, TrP-DN and IMS are based on empirical models with explanatory models developed to explore clinical phenomenon. Even though some acupuncture practitioners may prefer to practise strictly in accordance with classical theory, other acupuncturists incorporate biomedical research into their practice. The relationship between the biomedical foundation of TrP-DN and clinical practice describes a variation of classical acupuncture rather than the invention of a new therapy.

Once registration was implemented in Victoria, it became illegal to use the title ‘acupuncturist’ or to hold out to be qualified to practise acupuncture unless suitably registered or endorsed. The subject ‘myofascial acupuncture for myotherapists’ taught to remedial massage therapists at one institution became ‘myofascial dry needling’ once the title ‘acupuncturist’ was restricted to qualified and registered or endorsed practitioners. Rather than discussions based upon explanatory models, in this context the term ‘dry needling’ is used pragmatically to overcome the legal sanctions of holding out to practise acupuncture when not registered or endorsed to do so.

Serious risks of dry needling

Descriptions of the serious theoretical risks associated with the practice of dry needling include pneumothorax, peripheral and central nervous system injuries, organ puncture and syncope. The incidence of these events among practitioners trained in dry needling or IMS is unknown. A literature search using the keywords ‘dry needling’ and ‘risk’ was conducted on Medline, Pedro and Scopus without date restriction and limited to English language results (see Table 1). A total of 108 results contained articles relating to acupuncture risks and only one case report of an adverse event from dry needling. No review articles relating to dry needling risks were identified.

The lack of reports of serious risks from dry needling requires some discussion. It may be that despite its deep needling techniques dry needling is safer than acupuncture and has not led to sufficient harm to warrant investigation. It may be that the practice of dry needling is not as widespread as acupuncture and, considering its relatively recent use, has not attracted the attention of investigators. It may also be that as acupuncture and dry needling are considered by researchers, practitioners and patients to be essentially the same practice and that research on acupuncture has been used to inform the risks of dry needling. Support for this latter possibility is provided by papers including a Cochrane review which use the terms acupuncture and dry needling collectively. Kalchiman and Vulfson’s discussion of the risks of dry needling provides further support for this notion where they refer to the risks of dry needling as similar to acupuncture and which are ‘well described’.

Given the foregoing discussion and that the practice of dry needling is identical to the practice of trigger point acupuncture and ahi acupuncture the serious risks associated with acupuncture can be extrapolated to understand the risks of dry needling. A search of English language articles in Scopus using keywords ‘acupuncture’ and ‘risks’ and limited to English language articles associated with acupuncture can be extrapolated to understand the risks of dry needling. A search of English language articles in Scopus using keywords ‘acupuncture’ and ‘risks’ and limited from the year 2000 to 2011 resulted in 1604 results. A further restriction to ‘serious risks’ limited results to 92; twenty-three of which pertained to acupuncture risks. Results comprised nine review articles, six case reports, four prospective studies, three articles discussing risks and safe practices, and one randomised controlled trial (see Table 2).

Acupuncture is considered safe when practised by well trained practitioners. However, acupuncture has also been associated with a range of serious complications including death. A systematic review of deaths after acupuncture found that 86 fatalities were reported among 32 articles. The most common cause of death was pneumothorax followed by puncture of the heart, large blood vessels, central nervous system structures, the liver or infection. The number of deaths have increased over time and are not limited to China, Japan and other parts of Asia but include deaths in the United States, Germany and Norway. The authors note that pneumothorax is not only the most common cause of death but also the most frequent serious non-fatal complication arising from acupuncture. The authors observe that all deaths would likely be avoided with adequate acupuncture training. In another review the authors speculate on the reasons for different rates of reporting from different Asian and Western countries but conclude that adverse events would be avoided if all acupuncturists were trained to a high
level of competency.79

In an Australian study of adverse events in Chinese medicine (primarily acupuncture) it was found that60 adverse event rates for practitioners with 0–12 months of CAM (complementary and alternative medicine) education were significantly higher than for those with 37–60 months education. In the same study it was found that the risk of pneumothorax among medical practitioners practising acupuncture was twice the rate of non-medically trained acupuncturists.61 The study found that only 25 of 458 medical practitioners surveyed had completed more than 12 months of traditional Chinese medicine (TCM) education with the remaining 72% either not answering the question on training or had completed less than two weeks of training.61

While studies into deaths and serious risks associated with acupuncture support thorough training in acupuncture, there is an assumption that much of this study should be focused on anatomy.37,62,63 The Australian study demonstrates that it is not enough to have thorough training in anatomy and biomedicine alone. Comprehensive training in acupuncture seems to be associated with a lower risk profile than being a medical practitioner.61 TrP-DN and IMS favour deep needling methods29 which carry an inherently greater risk of organ puncture than superficial methods. It should be noted that courses on dry needling in Israel, Canada, the US and Australia are all in the range of 16–36 hours duration27,34 and fall into the higher risk category found in the above study.61

Discussion

Acupuncture is neither a single technique nor underpinned by a single explanatory model.15,19,64 For thousands of years acupuncture theory has been developed and refined, useless theory has been discarded and innovations incorporated.19,46,64-66 Acupuncture is evolutionary and different cultures have adapted it to local conditions and modified acupuncture theory and practice over time. Japanese66,67, Korean68 and French variants69 are well established and the concepts of medical acupuncture23 and western acupuncture24 have emerged.19 Research has continued to explore the mechanism of acupuncture from a biomedical perspective for more than five decades and, while some elements of the mechanism have been uncovered,17 a comprehensive understanding of the mechanism of acupuncture regarding MTrP43,51 remains elusive.

<table>
<thead>
<tr>
<th>TABLE 1</th>
<th>Search Strategy and Results for Dry Needling and Acupuncture risks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Database</td>
<td>Medline</td>
</tr>
<tr>
<td>Date Range</td>
<td>1977-2011</td>
</tr>
<tr>
<td>Search Terms</td>
<td>Dry needling AND risks</td>
</tr>
<tr>
<td>Search type</td>
<td>Keyword and SmartText via Ebscohost search</td>
</tr>
<tr>
<td>Results</td>
<td>91</td>
</tr>
<tr>
<td>Results for acupuncture risks</td>
<td>2</td>
</tr>
<tr>
<td>Results for dry needling risks</td>
<td>1</td>
</tr>
<tr>
<td>Total needling risks results</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>TABLE 2</th>
<th>Results of acupuncture risks by article type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Article type</td>
<td>Case Report</td>
</tr>
<tr>
<td>Number</td>
<td>6</td>
</tr>
</tbody>
</table>
It is inaccurate to label a practice that has become popular over the past decade or so as a new or different practice when it is virtually identical to another practice that has been established and used for more than a thousand years. Advocates of dry needling argue that it is the explanatory model underpinning dry needling that differentiates it from acupuncture. The explanatory models they refer to are incomplete, have not been validated, and at best fall into the category of research into the mechanism of acupuncture. It is clinical experience rather than the gold standard of evidence-based medicine that guides dry needling, IMS and medical acupuncture practice.

Dry needling, IMS and MTfs have added another chapter to the story of acupuncture by systemising elements of classical practice. This systematisation appears to make it easier to achieve clinical results for neophyte practitioners in the same way that ‘cook-book’ fixed-point prescriptions of acupuncture have been used previously. These approaches should prove a valuable addition to the curriculum of comprehensive acupuncture programmes along with other modern innovations such as auriculotherapy, laser stimulation, electro-acupuncture and point injection therapy.

The preceding reviews of serious risks link them with negligence and indicate that serious risks can be avoided with adequate training. An Australian insurer noted an increased incidence of pneumothorax among physiotherapists practising acupuncture in 1996 and expects the incidence to increase as more physiotherapists take up acupuncture. The insurer reminds physiotherapists of the need for adequate training and to provide adequate explanations to patients. Negligence is a professional act or omission leading to a patient’s harm. By contrast an inherent risk of practice is a risk that cannot be eliminated from a procedure even when a procedure is correctly performed. Under Australian law, failure to warn a patient of an inherent risk may lead to an action of negligence. It may be that the short courses and deep needling techniques associated with these two or three day courses popular among physiotherapists make pneumothorax an inherent risk among such practitioners. This shift in thinking is already reflected in some countries with consent forms declaring the risk of a pneumothorax from dry needling to patients before proceeding with treatment.

The World Health Organization’s (WHO) Guidelines on Basic Training and Safety in Acupuncture (GBT) recommend that allied health practitioners who are not prepared to complete a full 2500 hour program of study in acupuncture should study acupressure instead because of the risks associated with brief training in acupuncture. Redefining the practice of acupuncture to dry needling could be seen as an attempt to avoid the conflict of non-compliance with well established educational and safety guidelines developed by WHO. The range of health practitioners practising acupuncture safely at bachelor’s or master’s degree level is confounded by the growth of two day courses in dry needling. It may be difficult for the public to discern between a practitioner who is registered or endorsed to practise acupuncture from a practitioner who is practising dry needling when, to the public, elements of each practice appear to be the same.

The relatively small number of deaths from cervical spine manipulation numbering 26 worldwide, and associated non-fatal strokes, have been sufficient to restrict this practice in Australia to chiropractors, osteopaths, medical practitioners and physiotherapists. A risk analysis has shown that the reduced competition that a restriction of practice entails is warranted if it is outweighed by the risk posed to public health and safety through not restricting the practice. The incidence of deaths from poorly trained acupuncture practitioners is more than three times higher than for cervical spine manipulation. The proliferation of short courses under the label dry needling using deep needling techniques will only increase the number of poorly trained practitioners and the incidence of serious risks.

Conclusion

If dry needling were truly a new and different practice to acupuncture then the evidence of its safety should be obtained before this invasive procedure, with potentially serious or fatal inherent risks, is offered to the public. If dry needling is the same practice as acupuncture then the research into the adverse events and serious risks of acupuncture should inform an adequate education and training standard for the practice.

The paper has demonstrated that dry needling is not a new or separate practice from acupuncture which has its roots in Chinese medicine and which continues to evolve and develop within the domains of scientific research, medical acupuncture and Chinese medicine. Dry needling is a pseudonym for very brief training in myofascial acupuncture also known as trigger point acupuncture and ahb acupuncture. The deep needling techniques which are preferred and characteristic of the dry needling approach have an inherently higher risk of pneumothorax and other serious risks than other needling methods. Acupuncture is safe in well-trained hands; however the risk of serious adverse events, though rare, has been found to be much higher among practitioners who have minimal training in acupuncture even if they have detailed knowledge of anatomy and biomedicine. The World Health Organization’s GBT make it clear that short courses in acupuncture are an unnecessary risk and that acupressure should be studied instead.
In the contested market place of acupuncture practice in Australia, the use of the term ‘dry needling’ appears to be an attempt to circumvent the role of the well qualified acupuncture workforce and substitute them with other health professions who practise with a rudimentary understanding of just one tool in the acupuncturist’s tool-kit. While acupuncture may offer a great contribution to public health, the education standard underpinning the practice of dry needling poses a real threat.

In the Australian context all registered health professions have access to education programs which make them eligible for registration or endorsement in acupuncture. It is not in the public interest to allow poorly trained practitioners to provide an invasive procedure with inherent risks of harm when suitable training courses and well trained professionals are available instead. Short courses in acupuncture to a wide audience under the label ‘dry needling’ may be profitable; however they appear not to be in the public interest. The practice of acupuncture including its several pseudonyms should be restricted to suitably registered or endorsed acupuncturists in accordance with the NRAS in order to adequately address the risks posed by brief training in acupuncture.

**TABLE 3:** Glossary of Abbreviations and Acronyms

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AHPRA</td>
<td>The Australian Health Practitioners Regulatory Agency</td>
</tr>
<tr>
<td>CMBA</td>
<td>Chinese Medicine Board of Australia</td>
</tr>
<tr>
<td>CMRBV</td>
<td>Chinese Medicine Registration Board of Victoria</td>
</tr>
<tr>
<td>GBT</td>
<td>World Health Organization Guidelines on Basic Training and Safety in Acupuncture</td>
</tr>
<tr>
<td>HPRA</td>
<td>Health Practitioners Registration Act 2005</td>
</tr>
<tr>
<td>IMS</td>
<td>Intramuscular Stimulation</td>
</tr>
<tr>
<td>MPS</td>
<td>Myofascial Pain Syndrome</td>
</tr>
<tr>
<td>MTHP</td>
<td>Myofascial Trigger Point</td>
</tr>
<tr>
<td>NRAS</td>
<td>National Registration and Accreditation Scheme for the Health Professions</td>
</tr>
<tr>
<td>TCM</td>
<td>Traditional Chinese Medicine</td>
</tr>
<tr>
<td>TRP-DN</td>
<td>Trigger Point Dry Needling</td>
</tr>
<tr>
<td>WHO</td>
<td>World Health Organization</td>
</tr>
</tbody>
</table>

**References**


55. RMIT University. Remedial Massage (Myotherapy) – Advanced Diploma and Diploma [cited 2011 Feb 19]; Available from: <http://www.rmit.edu.au/browse/Study%20areas%20at%20RMIT%2FTypes%20of%20study%2FDegrees%2FAll%20programs%2FR%2FID-C6094;STATUS=A>.


