Australian
Traditional
Medicine
Society

Rural Naturopaths'

**Provision** To

Poorer Clients

Whole-system approach and evidence-based medicine research models

Microneedling and Acupuncture Facial Rejuvenation

compared

Quadratus lumborum:

anatomy, physiology and involvement in back pain

Seasons **Greetings** 

from all of us at the Australian Traditional Medicine Society

ISSN 1326-3390

**ATMS** 

#### THE 2016 INTERNATIONAL CONGRESS ON

### \_MFDICINE

Saturday 11th - Monday 13th June | Sofitel Brisbane Central



#### YOUR **INVITATION**

The Metagenics International Congress on Natural Medicine has earned the privilege of being recognised as the most significant educational event in our industry. We are pleased to invite you to join us in Brisbane in 2016. This gives us the chance to come together as an industry with like-minded people for an enthusiastic and insightful long-weekend. We encourage you to book in and pay in full now to secure your seat and avoid disappointment.

#### THE EVENT - ADVANCES IN NEUROLOGY AND PSYCHIATRY

Metagenics International Congress on Natural Medicine for 2016 will address one of the most important areas of health care – neurology and psychiatry. Although Descartes' philosophy split the mind from the body in the 1600s, we will be reuniting matter and function and exploring the impact of neural physiology on mood, learning and cognition. Functional psychiatry has taken substantial steps forward over the last few years with increasing understanding of the role of oxidative stress, inflammation, mitochondrial function and the blood brain barrier on conditions once thought to be purely psychological. We will also explore the role of the milieu that the brain finds itself in on neurological function, including nutrition, gut function, systemic infection and toxicity.



DR. SONJA LYUBOMIRSKY BA (Psych), PhD - USA



DR. JAMES GREENBLATT



DR. DALE BREDESEN



DR. DAVID RAKEL



DR. JEROME SARRIS PhD, MHSc, BHSc, AdvDip (Acu), DipNutr. - AUST



DR. ADRIAN LOPRESTI BA (Hons), MA, PhD - AUST



DR. JACQUES DUFF BA (Psych), GradDipAppSc (Psych), PhD - AUST

MORE AUSTRALIAN AND INTERNATIONAL RESEARCHERS AND CLINICIANS TO BE ANNOUNCED SOON.

#### Registration Includes:

- Full Congress manual
- Congress gift packMorning tea and refreshments upon arrival
- Healthy and delicious full buffet lunch
- Afternoon tea
- Coffee, tea and purified water
- A light dinner on Saturday night

Early Bird price of \$695.00 incl. GST (normal price \$795.00 incl. GST) each per person. (Same price applies in New Zealand).

Early Bird ends 29th January 2016 or if sold out prior.

CONGRESS IS ALWAYS A SELL OUT - DON'T MISS YOUR SEAT IN BRISBANE

Call 1800 777 648 to book today.

For further information visit our website metagenics.com.au

#### **Australian Traditional Medicine Society**

Volume 21 | Number 4

### Contents

#### **SUMMER 2015**

**221** 

PRESIDENT'S MESSAGE | B. TANNOUS

ARTICLES

224

MICRONEEDLING AND ACUPUNCTURE FACIAL REJUVENATION COMPARED

A. KINGSTON



228

RURAL NATUROPATHS'
PROVISION TO POORER CLIENTS

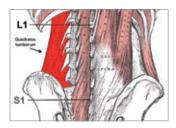
DR T. HOLMES



234

WHOLE-SYSTEM APPROACH AND EVIDENCE-BASED MEDICINE RESEARCH MODELS

M. MALAGUTI-BOYLE



**241** 

QUADRATUS LUMBORUM: ANATOMY,
PHYSIOLOGY AND INVOLVEMENT IN
BACK PAIN

P. DE PERMENTIER

243

UPDATE ON RESEARCH IN HOMOEOPATHY

R. MEDHURST



245

THE EFFECTS OF MASSAGE THERAPY
ON IMMUNE FUNCTION

DR J. LOVAS

246

**WORKING WITHIN THE LAW** 

L. HART

248

DR MIKIO SANKEY'S ADVANCED ENERGY HEALING

C. GRUETTKE

250

IS IT TIME FOR A REVIEW OF ALLIED HEALTH CURRICULA?

S. LO GIUDICE & S.GRACE



259

PRACTITIONER PROFILE

J. MARTIN

REPORTS

254

LAW REPORT

**257** 

**BOOK REVIEWS** 

260

RECENT RESEARCH

NEWS

268

**HEALTH FUND UPDATE** 

269

**HEALTH FUND NEWS** 

**273** 

PRODUCTS & SERVICES GUIDE

283

EDUCATION & TRAINING



The Australian Traditional-Medicine Society Limited (ATMS) was incorporated in 1984 as a company limited by guarantee ABN 46 002 844 233.

#### ATMS HAS THREE CATEGORIES OF MEMBERSHIP

Accredited member

Associate member

Student membership (free)

#### **MEMBERSHIP AND GENERAL ENQUIRIES**

ATMS, PO Box 1027 Meadowbank NSW 2114

Tel: 1800 456 855 Fax: (02) 9809 7570 info@atms.com.au

www.atms.com.au

PRESIDENT

Betty Tannous | betty.tannous@atms.com.au

#### **VICE PRESIDENT**

Stephen Eddey | stephen.eddey@atms.com.au

#### **TREASURER**

Christine Pope | christine.pope@atms.com.au

#### **DIRECTORS**

Alexandra Middleton | alexandra.middleton@atms.com.au

Antoinette Balnave | antoinette.balnave@atms.com.au

Daniel Zhang | daniel.zhang@atms.com.au

 ${\sf Greg\ Morling}\ |\ {\bf greg.morling@atms.com.au}$ 

Jesse Sleeman | jesse.sleeman@atms.com.au

Maggie Sands | maggie.sands@atms.com.au

Peter Berryman | peter.berryman@atms.com.au

 ${\it Robert\ Medhurst} \ | \ {\bf robert.medhurst@atms.com.au}$ 

Sandra Grace | sandra.grace@atms.com.au

#### **LIFE MEMBERS**

Dorothy Hall\* - bestowed 11/08/1989

Simon Schot\* - bestowed 11/08/1989

Alan Jones\* - bestowed 21/09/1990

Catherine McEwan - bestowed 09/12/1994

Garnet Skinner - bestowed 09/12/1994

Phillip Turner - bestowed 16/06/1995

Nancy Evelyn - bestowed 20/09/1997

Leonie Cains - bestowed 20/09/1997

Peter Derig\* - bestowed 09/04/1999

Sandi Rogers - bestowed 09/04/1999

Maggie Sands - bestowed 09/04/1999

Freida Bielik - bestowed 09/04/1999

Marie Fawcett - bestowed 09/04/1999

Roma Turner - bestowed 18/09/1999

Bill Pearson - bestowed 07/08/2009

#### HALL OF FAME

Dorothy Hall - inducted 17/09/2011

Marcus Blackmore - inducted 17/09/2011

Peter Derig - inducted 17/09/2011

Denis Stewart - inducted 23/09/2012

Garnet Skinner - inducted 22/09/2013

#### ATMS JOURNAL EDITORS

Editor: Sandra Grace

Assistant Editor: Stephen Clarke

#### **PEER REVIEWERS**

Manuela Boyle Bill Pearson

Patrick de Permentier Wayne Reilly

Stephen Eddey Ann Vlass

Thomas Harris Daniel Zhang

Robert Medhurst

#### ADVERTISING SALES

Yuri Mamistvalov - Portside Media Tel: 0419 339 865

www.portsidemedia.com.au

#### **GRAPHIC DESIGN & PRODUCTION**

Annette Epifanidis - Uber Creative

Tel: 0416 087 412

www.ubercreative.com.au

Copyright 2015. All rights reserved. The opinions expressed in this journal are those of each author. Advertisements are solely for general information and not necessarily endorsed by ATMS.

<sup>\*</sup> deceased



President's Report

**Betty Tannous** | ATMS President

#### Introducing the new CEO

The Board of ATMS is pleased to announce the appointment of Charles Wurf as Chief Executive Officer who commenced on Monday 16th of November 2015. The Board is delighted that Charles has joined the Society as he brings significant experience and expertise in advocacy and strategy in running a not-for-profit organisation.

The Board is implementing a well-planned transition to our new CEO, and since his appointment Charles has held planning meetings with me, other Board members and the staff at ATMS.

Charles joins ATMS with a comprehensive background in aged and community care services, having represented aged care providers for some 17 years, including as CEO of Leading Age Services Australia NSW-ACT from 2006 to 2015.

After gaining initial qualifications in Industrial Relations, Charles has successfully represented member interests in a diverse range of industries - aged care, science and technology, transport and creative copyright - in a career spanning 30 years of dedicated

leadership within member-based organisations. He will now bring that passion to the natural medicine industry and will be invaluable in implementing and driving the strategic plan of the Society.

Charles is excited to be joining ATMS and looks forward to contributing to the ongoing work of the Society supporting members and representing all practitioners. Please join us in welcoming Charles to ATMS.

#### Strategic plan

It is critical for ATMS to engage in an open and mature discussion about the issues that are and will be confronting our industry and professionals in the coming years. There are challenges for our professionals, both internal and external, challenges that demand the kind of long-term focus that the ATMS board has brought this year to this exercise.

Our members have told us that they are concerned about health funds, public awareness and education, events and representation. The Board held a strategy day on 24 June 2015 that focused on the results of the survey and

focus groups and what was deemed most important for the members. The vital input was collated by the marketing coordinator, Alanna Hinds and Director Robert Medhurst and presented to the Board for discussion and outcomes at the strategy day.

It was a lively discussion with the views of the Board also being canvassed and discussed. The day ended with a plan for taking ATMS into the future and ensuring the livelihood of our practitioners. The Strategic Plan was prepared to assist the Society in meeting the needs of its members and to outline the key initiatives to stay ahead of and address the changing environment in the natural medicine industry.

Of course any strategy must be both efficient and equitable. The Strategic Plan has been prepared under the guidance of the ATMS Board, with input from the Board Directors, ATMS staff, external contributors and ATMS members, ensuring the broadest possible range of input was employed to capture the needs of the members of ATMS, and to empower the Society to drive the natural medicine profession forward in the direction given to it by all of those

who provide that guidance.

The five strategic pillars that are the outcomes of the 2015-2017 Strategic Plan are:

- 1. Industry Stakeholders Health Funds
- 2. Continuing Education for members
- 3. Industry recognition
- 4. Practitioner support and recognition
- **5.** Regulatory lobbying Government

The Board and CEO will be implementing goals and objectives to meet the above agenda.

#### There is no try ... only do! YODA

Since March 2015 the ATMS Board and the office staff have been concentrating on the do! The change in management also saw a change to some policies and procedures that have helped secure the future of the Society. This meant risk management policies and improvements that allowed the Board members to spend their time working for the members. One of the major changes that have been implemented is the outsourcing of the financial management of the Society. ATMS now has a team of experts in bookkeeping and accountants who manage the finances along with the Treasurer Christine Pope, the CEO and the President. Paperwork Central is a progressive business that has helped ATMS move into the 21st century utilisation of new technologies. I would like to thank Christine Pope for all her work and dedication to this project, as well as for working with the accountants and auditors to finalise the annual and financial reports.

#### Website and database

November saw the release of the new improved website, which features greater functionality, an online event booking system and a find-a-practitioner function. The last six months have involved intensive discussions with

the developers, often on a daily basis, and particular thanks go to the office manager Judith who has driven this process, and staff member Nicole for collating all the information.

There will be a print media and press campaign in the first half of 2016 to educate the public and promote our practitioners and the importance of consulting an ATMS registered practitioner. This campaign will create a public awareness of ATMS practitioners who are accredited and registered with the Society, and encourage potential clients to seek out these practitioners for their health care needs. Not only has the 'find-a-practitioner' portal been updated on the website for this purpose, but also we are in negotiations with companies that offer smartphone apps that will enable your clients to find you and book your services. Stay tuned for more on this.

Another major improvement is the 'My Member' page, where you can book events, check your membership status, keep updated on the latest news, and many more features.

#### **Elections for Directors**

This year we also undertook another election process, with five directors finishing their tenure and up for reelection. Stephen Eddey, Christine Pope, Peter Berryman, Daniel Zhang and Antoinette Balnave were all voted back onto the board for three years. The other successful candidate was Alexandra Middleton. Alex is a nutritionist based in Sydney with a background in the corporate world of recruitment and financial markets. She has strong skills in business management and development, sales, marketing and networking. Congratulations Alex and welcome on board!

#### **GSA** Insurance

I am sure that those of you who have had your renewals due have found the process seamless. In particular, many members have already commented on the ease with which they can renew online. GSA offer ATMS members very competitive pricing for their insurance and are our preferred insurer. If you are still with another insurer but wish to come across to GSA please contact us for details on a smooth transition, with accompanying benefits.

The agreement with GSA has been formalised for a further two years and we are looking forward to their extending a range of other insurances to members as they develop further products.

#### Online booking for events and membership

Please be aware that the online system for booking your event is the best and most secure way to book. There is no need to call the office and book your spot in an ATMS webinar or seminar. Booking online guarantees that you receive a reminder before the event and you will be sent your receipt straight away. It is also more secure than giving your credit card number over the phone, so please make sure you book through the website online for your next CPE event.

#### **Final Note**

I would like to take this opportunity to thank the ATMS office staff and the Directors of the Board for their support and assistance during the past seven months. Finally, I would like to wish you all a very Merry Christmas, Happy Holidays and all the best for the New Year.

Betty Tannous President





### SKIN PROBLEMS?

## MooGoo

has helped herds of people.

"I just want to let you guys know how happy my family is with your products. My wife, baby son and I have used various products, all with fantastic results!"

Mark, ACT

"I love your products and tell everyone who will listen how great it is! Keep up the great work!" **Tenielle, QLD** 

# Microneedling and Acupuncture Facial Rejuvenation compared

**Anthony Kingston** | Adv Dip TCM, Cert China, BHSc (Comp Med), Masters Herbal Med, Cert China TCM Cosmetology), Cert Singapore (Cosmetic Acupuncture) AACMA

#### **Abstract**

This article discusses the differences between traditional Chinese acupuncture facial rejuvenation and the modern adaption of cosmetic skin needling - microneedling. It compares the research, results and practice of the two practices and discusses the application of both to your clinic. Along the way it explores some of the myths that have developed about acupuncture facial rejuvenation and how this practice can still be of great benefit to clinics and their patients.

his article is designed to clarify the differences in practice, mechanism and results between acupuncture facial rejuvenation (AFR), sometimes called cosmetic acupuncture, and microneedling for cosmetic purposes. I will also discuss the ways the treatments can be used together to enhance outcomes for patients.

Let's start by exposing a major myth. It has become a common advertising claim in recent years that AFR works by increasing collagen production. This is in fact not true.

Collagen induction plays only a very small role in the function of AFR. Microneedling has been widely researched by both the pharmaceutical and cosmetic industries. Their large research budgets have allowed us to learn a lot more about the way in which needles can increase collagen induction naturally in the skin.

There are some important points we need to understand straight away:

Even when using much longer needles collagen induction only takes place up to a depth of 0.6mm into the skin (1).
 Although penetration any deeper than this may improve other results it will not increase the production of collagen. I have included a chart below which shows needle penetration through the skin (see Figure 1). Collagen produced through

needling in fact attaches to the border of the dermis and epidermis in the papillary layer of the dermis itself. You can see from the reference on the side of the chart how shallow this actually is.

• A single treatment with a micro needle roller containing 192 micro needles can increase collagen production in the skin by an average of 206% <sup>(1)</sup>. An average treatment may roll over the skin between 15 and 20 times in each area. When the roller is rolled across the skin 15 times it produces an average of 215 punctures per square centimetre <sup>(2)</sup>. When you consider that a normal AFR treatment will only use one or maybe two punctures per square centimetre it is evident that AFR in fact must be inducing very little collagen over all.

If AFR solely worked through collagen induction then it would look a very poor competitor to cosmetic treatments such as micro needling.

When confronted with this evidence many AFR practitioners will fall back on the argument that AFR balances the qi and yin and yang in the body and so improves the appearance this way. This is certainly true in my experience and I have studied many systems where every line and every blemish on the face represents a specific disorder of the organs. By reducing the line or blemish you improve the functioning of the organ and by treating the organ you benefit the line or sign of ageing on the face.

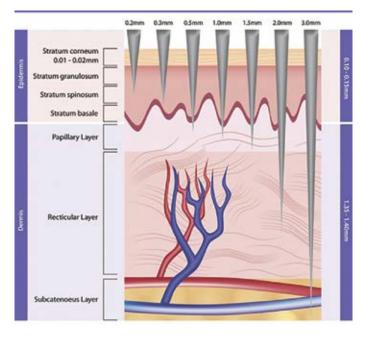


Figure 1.

This response although true has limitations. It does not truly explain the wide variety of threading and other AFR techniques that have developed, which employ a more western approach to treatment, largely focusing on the blemish or issue in isolation and targeting it with acupuncture needles.

This argument alone also cannot account for the good results that can be achieved with AFR. These results are generally under-researched but at least one study on 300 people conducted in 1996 strongly supported its efficacy (3).

In addition, a more scientific explanation of AFRs results is useful for our understanding and benefits the industry as a whole. I would suggest that AFR works through at least three mechanisms. It benefits the internal organs to improve the appearance (I include needling specific acupuncture points on the face in this section for simplicity), it induces a small amount of collagen and it separates the damaged collagen that comprises a wrinkle, scar or blemish from the healthy underlying tissue.

In the Western cosmetic industry this last mechanism is called subscision and was only really discovered in 2006 <sup>(4)</sup>. Basically it involves placing a tri-beveled syringe under a depressed scar and manipulating the syringe so that the scar quite literally pops



## ZAGU J-TYPE

#### A NEFDIE MASTERPIECE

Cutting-edge needle technology at the forefront of Chinese manufacturing

Lightweight plastic colour coded handle
Tab-less guide tube
Exceptional ease of insertion
Superior patient comfort



Shipping Australia Wide Free Needle Samples Always In Stock Sourced By Practitioners

www.sanacupuncturesupplies.com.au

Save 10% off your first order when you subscribe to our mailing list.





up. It is commonly used on large acne scars in conjunction with microneedling.

Those of you who are paying attention will no doubt have noticed how similar this technique sounds to the old Chinese method of assisting scars called 'circling the dragon'. I would suggest that when threading or other AFR techniques are used to needle through or under lines and wrinkles we are in fact also inducing this reaction. The way wrinkles often rise up for a short period after treatment demonstrating inflammation under the line or wrinkle would support this idea.

From the passages above we have established several things

- · AFT appears to work and be effective.
- It clearly works in multiple ways rather than by simple collagen induction.
- If you just want to induct large amounts of collagen, results depend simply on the number of punctures created.
- If collagen production were the only goal then microneedling would be the most effective treatment.

We have spent a lot of time discussing AFR; now we turn to microneedling. What are the advantages and disadvantages of microneedling compared to AFR?

There is no doubt that microneedling cannot provide the constitutional benefits that AFR can. It can also not penetrate deeply enough to lift or raise up scars and wrinkles. What it can do is increase the body's own natural collagen induction to completely resurface the external layers of the skin. It can also increase transdermal absorption of products through the skin, in some cases by up to 10,000 times <sup>(5)</sup>.

The dramatic increase in collagen induction is extremely useful for providing a fresh new layer to tired looking skin. More importantly, by causing micro-trauma in the surface of the skin it naturally produces a group of enzymes called collegenease which break down the old and misaligned collagen present in wrinkles, scars and stretch marks. It replaces this collagen with a new smooth matrix of collagen, dramatically improving the appearance.

In addition to skin punch biopsy research mentioned above this has been repeatedly shown through patient surveys, with over 80% of patients reporting improvements in burn scars and a 60-80% improvement in wrinkles, stretch marks and sagging skin after micro needling  $^{(6,7)}$ .

Increasing transdermal absorption is also extremely useful. Originally researched extensively by the pharmaceutical industry as an alternative method of drug delivery it is now used extensively in the cosmetic industry to improve the results of anti-ageing

treatments through the delivery of powerful skin rejuvenators.

So what are the differences in application between the two treatments, and how can we and our patients benefit from combining them?

In modern practice both have a large number of similarities. The skin preparation and aftercare serums that are used are almost identical. When choosing these serums you have to be slightly more careful with microneedling than with AFR as they will be absorbed in greater quantities, due to the higher number of punctures. Microneedling provides a wonderful opportunity to absorb large quantities of proven safe topical anti-ageing herbs such as ginseng and white tea.

The contraindications to treatment for both are almost identical. As both treatments involve skin penetration any massage, either with jade implements or with your hands, is also better performed before the treatment to avoid contamination risks.

Aftercare is slightly different. AFR presents a slightly higher risk of bruising as the needles penetrate more deeply into the skin. On the other hand microneedling leaves the skin more inflamed and slightly increases photosensitivity, so sunlight should be avoided for around 24 hours or longer if using more aggressive medical microneedling. Microneedling will also leave the skin slightly drier, as some of the fluids of the skin also escape through the increased micro-punctures.

The next obvious question is how to combine the two treatments in clinic to get the best results from both with the least side effects. Combining the treatments is very effective when done properly. Below I have outlined some of the key points to perform this effectively.

- Booking at least one treatment a week and two treatments every second week is even better, as long as the customer can afford this comfortably and your time allows.
- Perform AFR first based on the patient's constitution and individual diagnosis.
- Wait at least two days and then perform microneedling.
- · When performing microneedling make sure to continue your

"IT IS IMPORTANT TO EXPLAIN WHEN DISCUSSING RESULTS WITH THE PATIENT THAT COLLAGEN INDUCTION DOES NOT EVEN BEGIN TO TAKE PLACE FOR AT LEAST 48 HOURS, AND CONTINUES TO IMPROVE FOR SIX MONTHS AFTER TREATMENT.

constitutional treatment by using distal points. Make sure to use several in the feet to reduce the blood pressure risks of extensive blood rising to the face.

- In the second week perform only AFR. It is better to leave a
  two week gap between microneedling treatments to allow
  the enzyme collegenease (discussed above) to peak and
  subside before performing the next treatment.
- Continue this for 12 weeks if possible.
- After performing the microneedling treatment, make sure
  to apply a very good quality serum that is safe in view of the
  accompanying increased absorption. I recommend green tea
  oil based products, as green tea is extremely safe and the oil
  better combats the dryness induced by microneedling.

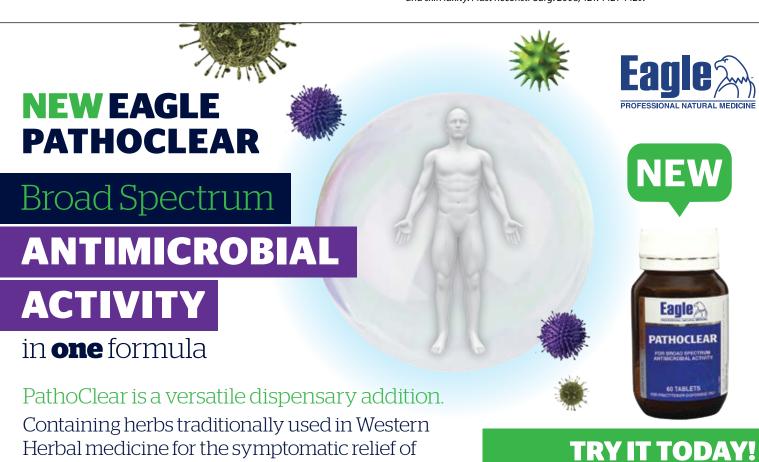
It is important to explain when discussing results with the patient that collagen induction does not even begin to take place for at least 48 hours, and continues to improve for six months after treatment. This is a treatment with long term benefits which will complement the improvements you can make in the patient's internal organ function.

upper respiratory and digestive tract infections.

To conclude, microneedling can prove a valuable asset to any clinic performing AFR. They can be used synergistically to improve results and widen the customer base and services available in your clinic.

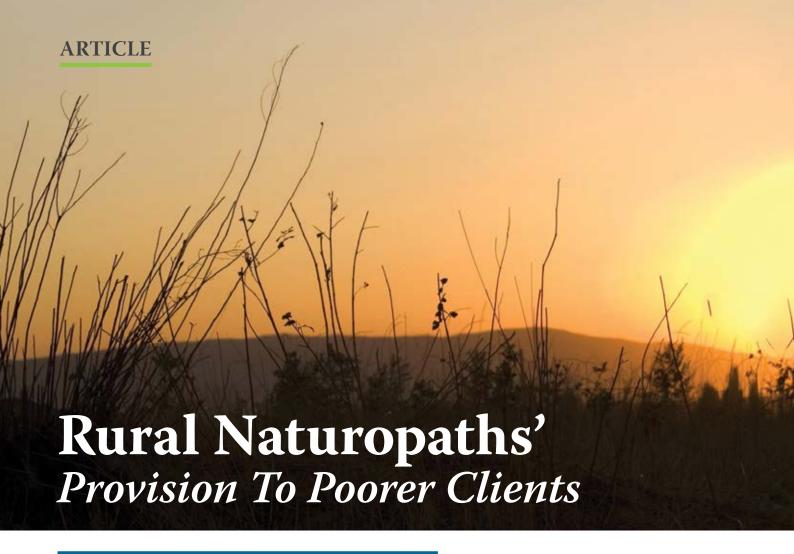
#### **REFERENCES**

- Schwartz et al. A Hypothesis for the Mechanism of Action of Collagen Induction Therapy using Micro-Needles (1st ed). Horst Liebl, 2006.
- 2. Anastassakis, K. The Dermaroller™ Series, 2005.
- Zhang Q. & Zhu L. Meridional Cosmetology: Report of 300 Cases with Discussions of Underlying Mechanism. The International Journal of Clinical Acupuncture. 1996; 7(40; 401-405
- **4.** Orentreich DS. Orentreich, N. Subcutaneous incisionless (subcision) surgery for the correction of depressed scars and wrinkles. Dermatol Surg, 1995; 21(6). 543-549.
- Henry S, McAllister DV, Allen, M, Prausnitz MR. Microfabricated microneedles: a novel approach to transdermal drug delivery. J Pharm Sci. 1998; 87(8): 922-925.
- **6.** Aust MC, Knobloch K, Reimers K, Redeker J, Ipaktchi R, Altintas MA, Gohritz A, Schwaiger N, Vogt PM. Percutaneous collagen induction therapy: an alternative treatment for burn scars. Burns. 2010; 36(6): 836-43.
- 7. Aust MC, Fernandes D, Kolokythas P, Kaplan HM, Vogt PM. Percutaneous Collagen induction therapy an alternative treatment for scars, wrinkles and skin laxity. Plast Reconstr Surg. 2008; 121: 1421-1429.



Customer Service: 1300 654 336 www.eaglenaturalhealth.com.au

Order Online: www.myintegria.com



**Dr Tass Holmes** | PhD (Anthropology, University of Melbourne)

Building from my recent article in this journal: *CAM Use By Rural Victorians: An Introduction*,<sup>1</sup> this paper summarises some findings of a recent ethnographic study, giving an insight into Complementary and Alternative Medicine (CAM) practitioner strategies when providing a limited range of services for poor rural clients.

The project was situated in a rural Victorian community, consisting of a series of small villages collectively known under the pseudonym 'Sephirah', and a second fictitious and somewhat larger composite rural town, 'Pinedale'. It employed anthropological ethnographic methods to describe use of non-biomedical therapies (usually labelled 'CAM') by low-income rural health consumers, and CAM practitioners, and the meanings and significance attributed by participants to these non-medical methods of treatment. To facilitate theoretical analysis, all CAM were conceptualised as marginal in relation to dominant biomedicine.

#### **Background**

Long-term poverty is a prevalent reality for many rural Australians, who often face circumstances of hardship, with few employment opportunities, considerable health and social wellbeing issues,<sup>2</sup> and reduced availability of all types of healthcare services.<sup>3,4</sup> Specific rural disadvantage is not clearly recognised in most studies concerned with health problems.<sup>5</sup>

Australia's Medicare-funded public health system, providing ostensibly 'universal' healthcare coverage,6 unfortunately limits equitable access for poorer Australians to private-sector feebased services. This structural oversight excludes almost all CAM practitioners – who attract neither Medicare rebates (earned by GPs), nor public sector wages (earned by community-clinic allied health providers), that would support them in practice – from access to an entire stratum of potential healthcare clients who live on low

incomes, including a high proportion of poor rural residents.

Given the competitive healthcare marketplace that situates CAM practitioners effectively against each other and in direct competition with Medicare-funded GPs and state government-funded allied professionals, their ability to provide services to assist low-income clients, arguably the group who need them most, is dramatically compromised by this structural favouring of dominant biomedical practices, as is the case in most first-world countries.7-10 In addition to being less numerous than conventional or allied health services, CAM practitioners in rural places contend with a limited customer base, inadequate to support viable longterm business incomes. On account of these financial challenges, they may be discouraged from practising in rural areas, and unable to maintain rural practices.

Those who succeed in establishing a business usually provide some services either free, heavily discounted, or using special payment arrangements for impoverished clients. Data from the research emphasise this and other socioeconomic problems, in association with CAM use.

This paper highlights rural naturopathic practitioner descriptions of service provision for poor clients, in terms of waived or adjusted payments, sale of OTC products, or simplified treatments and advice, implying that an altruistic outlook and caring intention<sup>11</sup> underlies their decision to take on such clients, despite its doing little to improve their income.

#### Methodology

Design and aims of the research necessitated ethnographic data collection methods, primarily participant observation and in-depth interviews. Ethics clearance was granted by University of Melbourne HREC in 2011. Fieldwork comprised over two-and-a-half years of immersive participation in diverse local community activities, in fields related to the arts, health, social and church events, protests, alternative workshops and lectures, talk circles, support groups, many conversations and observations, and 54 formal in-depth interviews, which were digitally recorded, annotated with hand-written notes, and most of which were transcribed in full.

Interviewees were recruited by a snowball method, following word-of-mouth recommendations, and purposive inclusion criteria, of: (a) adults 18 years or over; (b) low-income consumers who 'intensively' used CAM (for example, accessing practitioner-provided treatments and/or self-medicating with relatively complex CAM, such

as homoeopathics, compound herbal medicines and Reiki or kinesiology, rather than, say, only taking vitamins purchased from a supermarket) (compare Broom's approach<sup>12</sup>); and (c) practitioners who provided at least some CAM services for clients in financially difficult circumstances.

These criteria ensured I was able to interview a passionate, personally-involved and knowledgeable group of respondents. In addition to numerous consumers, I documented interviews and/or observations of 34 CAM practitioners, nine of whom were men, and 25 women – including full-time, part-time, students and retirees, formally or informally trained (and three integrative medical practitioners), who together represented many diverse modalities – for dual purposes of description and basic statistical analyses.



"Though most consumer interviewees of this research felt they could not afford to see CAM practitioners at all, Stacey believed she does treat a 'representative range' of low-income clients in clinic (including sole parents, the unemployed and disabled, although not many elderly people)".

The balance of this paper focuses on approaches adopted by local 'Sephirean' professional naturopathic practitioners, who sought to partially address the problems of a low-income clientele, who could not afford consultation fees. Other practitioners will be described in the third paper in this series.

#### **Rural naturopaths**

Three working naturopaths, all from Pinedale, and one retired elderly naturopath and a final year studentnaturopath, both from Sephirah, provided information about rural naturopaths' approach to impoverished clients. Their responses highlight the benefit to lowincome clients of delivering freely available advice in a dispensary-style service, in holistic clinics or pharmacies. Also useful were one-off professional consultations incorporating patient-education for self-care, low-cost prescriptions such as homoeopathic remedies, herbal mixtures or OTC product sales that allow repeatprescription or permit clients to continue self-administering herbs and other supplements without further consultation fees, and naturopathic student clinics.

A clinic naturopath, Stacey, estimated 40% or more of her clients have private health insurance that rebates CAM treatments. While these financially stable clients 'float' her business, others were unable to afford health cover. She recommended 'really broke unemployed' clients attend CAM student clinics in metropolitan Melbourne, including Southern School at Fitzroy, and outlined ways she herself managed to treat low-income clients, saying:

Often I look at a person's economic status, as [a guide] to what I use. If someone's on limited income I use homoeopathics - they're more affordable ... [My] prices are not beyond the means of most people. It's \$60 an hour. I don't give discounts, but if someone's [poor], and I can tell it's not affordable, I'll try and see them in half an hour ... [or] if people are struggling I get them to see [the bolistic GP, which is] Medicare-rebated ... Maybe 40 percent [of clients are low-income], because of [where] we live ... I use 'one-in-ones' [berbal extracts] so dosages are lower, and I don't mark up berb [prices]. I recover [just over cost price], to keep [berbs] affordable. One-in-ones are low dose anyway ... [Some] people walk into the shop wanting advice. We have a good range of homoeopathic complexes I've made for \$7, so if someone's strapped for cash, at least they can buy those, or berbal tea [mixtures]. [Cost] depends on [ingredients] but it's under \$10.

Though most consumer interviewees of this research felt they could not afford to see CAM practitioners at all, Stacey believed she does treat a 'representative range' of low-income clients in clinic (including sole parents, the unemployed and disabled, although not many elderly people). She stated, 'some people are really committed to health, and that's a priority in their finances'. At the time of interview, Stacey was seeing one client with mental illness weekly for free. She usually has one or more free clients, who pay nothing for an agreed period due to adverse circumstances.



She claimed it was difficult for people to find a psychiatrist who bulk bills and isn't connected with the hospital system because hospital wait lists were extensive and it's a long way into the city for appointments. Some support services have recently been closed in local communities, due to federal government funding cuts. Without specific expertise in mental health, Stacey nevertheless feels she can't refuse the occasional person who comes to her 'out of desperation'. She confided that she would definitely earn a substantially higher income working in a metropolitan area.

In contrast to Stacey's clientele, a pharmacy-based naturopath, Vera, sees mostly elderly customers without health insurance. Most prescriptions are for concession customers with Health Care or Pension cards. Computer records of sales for a foregoing fortnight showed approximately 1540 concession scripts against only 150 non-concession scripts (less than 10%).

These figures reflect the typical rural town demographic of low-income, elderly families, and Centrelink-recipients, and also suggests local workers who commute to urban centres may prefer to shop downtown, on their way to or from places of employment. Naturopathic consultations were available in Pinedale pharmacy from a second naturopath, Melanie, two days weekly, for a modest \$75 for initial visits and \$45 for follow-ups, which 'compares favourably with downtown rates'. Decisions about whether to insist

on consultation or sell products OTC are based on criteria such as safety, particularly in complex cases, and affordability, for those with limited finances. It was acknowledged that some people come to the shop solely to buy complementary medicines OTC, and to seek free pharmacy-style advice about CAM products, or repeat-purchase products previously sourced elsewhere 'from a usual practitioner', without booking to see the naturopath.

Another cheap avenue for naturopathic care is student clinics at CAM teaching colleges. Marina, a 49 year-old final-year naturopathic student spoke of Endeavour College's central Melbourne student clinic role, providing naturopathic care for low-income clients:

We treat a lot of students, and older people, pensioners and senior citizens ... though few [of] what's considered

regular typical CAM users ... [We] charge \$5-\$10 [for consultation], including clinical review, about an bour [for new clients], plus [20 minutes] with our supervisors before we give feedback ... [We take] the case, talk to them, then ... write a strategy and schematic mind-map [of bow we're treating them]. We justify [therapeutic choices] nutritionally and biochemically [based] on what we feel is happening ... We're on a busy downtown [street] ... and treat anyone coming in for [one price]. We don't ask [about income], [though] they [usually] tell us ... [But] it captures only a small percent of those who would come through if we weren't in just the one location.

A retired Sephirah naturopath, Donald, in his early 60s, had failed in attempts to establish himself as a practitioner due to a chronic back injury. He suggested

naturopathy would be 'a great job' as far as job satisfaction and enjoyment goes 'but hard to make a quid out of it'. Ongoing professionalisation and increased regulation of therapeutic substances have contributed to a reduced use of home-made remedies, and limit the ability of practitioners without up-to-date professional accreditation to purchase manufactured CAM products wholesale, whether for prescription or self-use. While he continues treating himself and family members with herbal medicines, Donald mainly relies on other people to source these for him, because he no longer maintains an association membership. He stated:

Herbs I'd get most probably either [retail], or get them myself [wildcrafted], to make [extracts]. Mainly I have to ask a friend to buy them ... [As a naturopath] to get remedies now, you have to be registered with [a professional association].

### INTERNATIONAL INSTITUTE OF KINESIOLOGY AUSTRALIA

#### PKP / TFH leaders in Complementary Medicine and Specialised Kinesiology Education

The International Institute of Kinesiology Australia is the only accredited international ICPKP College in Sydney offering the most comprehensive syllabus in Specialised Kinesiology. We provide you with exciting career pathways to start your kinesiology journey in 2016. Kinesiology is on the cutting edge of Energy Medicine and Holistic Health. Upgrade/diversify your credentials with the Touch For Health Certificate and continue your career development with our nationally & internationally accredited courses. Katha Jones is the CEO/ founder of IIKA and has been training competent and confident practitioners for 12 years! CPE points with ATMS, AKA, AIK.



#### **COURSES + DATES**

#### Touch For Health Intensives:

18-21 March & 15–18 April 2016 (8 days) - + student clinic 6 April + 18 May

<u>OR</u>

30 June-3 July & 14–17 July 2016

#### Diploma of Kinesiology (HLT52415):

2 years part-time

#### Int. Graduate Diploma in Kinesiopractic® (ICPKP):

1 year part-time

#### Red Flags Workshop (for Kinesiologists):

14-15 May 2016

#### Neural-Organisational Technique (N.O.T):

Level 1: 12-15 February 2016 Level 2: 17-20 June 2016

International Institute
of Kinesiology Australia
Ph. (02) 4648 0505

I would like to thank you so much for so many enjoyable life changing moments. Your dedication to your students & the school is truly inspiring! Kinesiology has given me new life skills & direction to take my life to the next level both personally & professionally. I have enjoyed every lesson & become more & more empowered by your enthusiasm to share what are to me the most invaluable tools to humanity in this age. The personal growth & awareness I have gained through studying kinesiology at IIKA cannot be measured. Thank you again for this wonderful gift."

These restrictions are evidence of the role of associations in limiting non-professional use of commercially prepared CAM medicines. Nonassociation practitioners who prescribe herbs, nutritional supplements and homoeopathic remedies are likely to experience difficulty running a profitable business. Wildcrafting high quality herbs is both time consuming and labour-intensive, as Donald mentioned, and retail supply of supplements allows no profitmargin. Retired part-timers, self-trained 'folk healers', and traditional naturecure practitioners today experience constraints on business opportunity, in an environment that espouses use of branded products and enforces both professional boundaries and normative social expectations, thereby delimiting the types of CAM in ready use. Popular non-medical western healing traditions are demoted in contrast to 'professional practices' (despite being often similar) that depend on mainstream educational attainment, professional engagement, and particularly on business activity that serves to document a level of participation in the formal economy.

However, income also remains relatively limited for many fully trained and actively working CAM practitioners with professional association memberships. This deficit is marked in comparison to biomedical practitioners, whose large client base depends on Medicarefunded bulk-billing and patient rebates, gatekeeping roles (that other practitioners, arguably, could do as ably), and their bread-and-butter work, writing pharmaceutical prescriptions and referrals to fellow doctors.

The unfairness inherent in medical doctors accessing Medicare when prescribing and practising CAM, often with limited or no training,<sup>13</sup> and their ease in obtaining wholesale CAM remedies for cheap purchase by clients, was noted by several practitioners and consumers, and further undercuts CAM practitioner livelihoods, while potentially bolstering a false view of

CAM's purported ineffectiveness in the hands of thoroughly trained CAM practitioners.

Having already worked seven months as a naturopath in Pinedale pharmacy, Melanie only recently paid off costs incurred in setting up business, and had not yet earned sufficient income to defray her expenses as a naturopath, although she now owned the shop-stock of herbal extracts and homoeopathics. She estimated she'd 'be lucky to get \$200 a week [gross business income] before expenses, overheads, rent on the shop's clinic space, other costs, tax, and so on', to supplement her part-time wage as a pharmacy shop assistant. Pharmacist Vera no longer works as a naturopath, but continues dispensing herbal or homoeopathic remedies and on-shelf CAM products as required, and filling medical prescriptions. She pays employees including Melanie, and the shop is busy sometimes. Two years ago, Vera attempted to sell her business, due to Pinedale's limited income opportunities, however no sale took place and she remains the owner.

The private practice naturopath, Stacey, despite expressing a strong desire for regulation of naturopathy, had no faith that this would bring Medicare funding for CAM any closer, and commented:

I don't think [we'd get Medicare, with greater professionalisation], not when we can't even get dentistry ... I don't know [if it will ever happen]. It'd be good, wouldn't it? I can't see it happening, but it would be great.

#### Income deficits and potential poverty of rural CAM practice

The reality of poverty among a rural clientele contributes to potential and actual poverty among rural CAM practitioners, who are prevented for financial reasons from having clinical interactions with most low income consumers. Estimates from colleges providing formal CAM education suggest that 72% to 95% of Australian naturopathy and western herbal

medicine graduates manage to establish full or part-time employment in chosen fields. 14,15 Nevertheless, many CAM practitioners undertake additional employment to supplement inadequate professional income. Graduates in less recognised modalities (including homoeopathy and Reiki), or of numerous smaller institutions or with grass-roots training, face further reduced earning opportunities.

Among the cohort of 34 CAM practitioners in this research, a majority were not able to sustain full-time employment in relevant fields of practice. Only four of nine male practitioners (44.4%) were mainly full-time employed (including two integrative GPs, and one TCM practitioner) or retired from full-time employment, compared with 55.6% (5/9) who received Centrelink payments and/or part-time employment income only. Only eight of 25 women practitioners (32%), whether partnered or unpartnered, had reliable full-time/ near full-time employment or were retired with superannuation after a full-time career (one integrative GP, one pharmacist-naturopath, two other naturopaths, one community development worker, one allied-health dietitian, one night-shift 'alternative detox' worker and one nurse). The other 17/25 women (68%) had only part-time employment income, and/or received Centrelink welfare payments and/or financial support from a partner.

In a community like Sephirah/Pinedale, where professional work in general is scarce and unemployment is high, CAM practitioners find it particularly difficult to make a living. However, practitioner participants of this research were almost all better off financially than consumeronly participants, whose use of CAM will be described in a forthcoming paper in this journal.

#### Conclusion

This paper presented a brief summary of part of a recent ethnographic research project, about complementary medicine use in a rural Victorian community.

It highlights financial challenges for naturopaths in rural practice attempting to provide consultation-based care to a generally low-income clientele.

#### **REFERENCES**

- Holmes T. CAM Use By Rural Victorians: An Introduction. J Aust Trad Med Soc. 2015; 21(3):176-180.
- Dade-Smith J. Australia's rural and remote health: A social justice perspective, 2nd edn. Croydon VIC: Tertiary Press. 2007.
- 3. Hausdorf K, Rogers C, Whiteman D, Newman B, Coxeter P, Youl P, Aitken J. Rating access to health care: Are there differences according to geographical region? Aust NZ J Pub Health. 2008; 32(3):245-49.
- Turrell G, Oldenburg BF, Harris E, Jolley D.
   Utilisation of general practitioner services by
   socio-economic disadvantage and geographic
   remoteness. Aust NZ J Pub Health. 2003;
   28(2):152-58.
- **5.** Smith KB, Humphreys JS, Wilson MGA. Addressing the health disadvantage of rural

- populations: How does epidemiological evidence inform rural health policies and research? Aust J Rur Heal. 2008; 16:56-66.
- Van Doorslaer E, Clarke P, Savage E, Hall J. Horizontal inequities in Australia's mixed public/private health care system. Health Pol. 2008: 86:97-108.
- 7. Almeida J. The differential incorporation of CAM into the medical establishment: The case of acupuncture and homeopathy in Portugal. Heal Soc Rev. 2012; 21(1):5-22.
- Kelner M, Wellman B, Welsh S, Boon H. How far can complementary and alternative medicine go? The case of chiropractic and homeopathy. Soc Sci Med. 2006; 63:2617-2627.
- Caulfield T, DeBow S. A systematic review of how homeopathy is represented in conventional and CAM peer reviewed journals. BMC Compl Alt Med. 2005; 5:12.
- 10. Hirschkorn KA. Exclusive versus everyday forms of professional knowledge: legitimacy claims in conventional and alternative medicine. Soc Heal Ilns. 2006; 28(5):533-557.
- 11. Dellman T, Lushington K. Characteristics Of

- Experienced Natural Therapists. J Aust Trad Med Soc. 2012: 18(2):95-100.
- 12. Broom A. 'I'd forgotten about me in all of this': Discourses of self-healing, positivity and vulnerability in cancer patients' experiences of complementary and alternative medicine. J Sociol. 2009; 45(1):71-87.
- 13. Cohen M, Penman S, Pirotta M, DaCosta C. The Integration of Complementary Therapies in Australian General Practice: Results of a National Survey. J Alt Compl Med. 2005; 11(6):995-1004.
- 14. McCabe P. Tertiary Education in Naturopathy and Western Herbal Medicine. In Lin V,
  Bensoussan A, Myers SP, McCabe P, Cohen M,
  Hill S, Howse G. The Practice and Regulatory
  Requirements of Naturopathy and Western
  Herbal Medicine, pp.118-156. LaTrobe Univ/
  Dept Hum Serv, Victoria. 2005; see: pp.133, 134.
- **15.** Bensoussan A, Myers SP, Wu SM, OConnor K. Naturopathic and Western herbal medicine practice in Australia – a workforce survey. Compl Ther Med. 2004; 12:17-27.



# More people in health and community services choose HESTA for their super

Supports your industry | Low fees | A history of strong returns











Issued by H.E.S.T. Australia Ltd ABN 66 006 818 695 AFSL 235249, the Trustee of Health Employees Superannuation Trust Australia (HESTA) ABN 64 971 749 321. Investments may go up or down. Past performance is not a reliable indicator of future performance. Product ratings are only one factor to be considered when making a decision. See hesta.com.au for more information. Before making a decision about HESTA products you should read the relevant Product Disclosure Statement (call 1800 813 327 or visit hesta.com.au for a copy), and consider any relevant risks (hesta.com.au/understandingrisk).



#### Introduction

Medicine is an exciting and progressive field of knowledge that has seen compelling changes over time. An increased understanding of technological improvements in this field of science has been accompanied by an ever-expanding appreciation of the mechanisms of health and disease that have positively affected entire populations. The increase in life expectancy over the last one hundred years has been attributed to the advancement of public health measures, such as childhood immunisations and hygiene, rather than to a significant improvement in medical technology.(1) Over the last fifty years changing patterns of age distribution, life expectancy, and causes of death are intimately related to the rate of onset and duration of chronic disease.(2) These epidemiological developments have been accompanied by previously unmatched healthcare costs. Efforts to curb costs, while ameliorating the chronicity of disease, have often proved challenging to consumers in many

ways. Alternatives methods of health care have been explored and applied, with a genuine and renewed interest in an effective medicine model.(3) With improved knowledge and education, and growth in disposable income, individuals have embraced an increased role in determining their healthcare choices. (4) The rise of the healthcare consumer has naturally created changes in conventional primary care, whereas historically change grew from either practitioner's clinical experience or medical research, (5) interest in alternative methods has brought about a change in medical practice as healthcare consumers' attitudes more aggressively determine what specific interventions are called for in their individual treatment. (6) Advances in science and biology have demonstrated that chronic disease is the sum of many variables, requiring an approach that embraces its multi-layered physical and psychosocial nature. This significant shift in the role and expectation of the health care model has created challenges for a research model that has traditionally supported

orthodox medicine. A whole-system research model and method have been proposed to better reflect this new concept of medicine.

#### Discussion

Holistic medicine is based on the understanding that to know health and disease it is necessary to know the function of the whole biological system of individuals. This principle, applied over many years, has created a healthcare model in which all components of the biological system are seen as interacting functionally with the environment and with each other.<sup>(7)</sup>

Traditionally, orthodox medicine has focused exclusively on the treatment of the physiology and biochemistry of individual organs, cells and molecules. There has been a slow shift by researchers and clinicians towards exploring other components of biological systems, a process that has led to the contemporary practice of developing differential diagnosis in primary care. (8) Similarly, when

a pharmaceutical drug is created, attention is focused on how individual compounds interact with a specific target in human physiology. Arguably, in acute care the increased understanding of pharmacologic interactions in the body has positively correlated with symptomatic relief of disease. However, in chronic illness the increasingly deep knowledge of common underlying pathways of health and disease has enabled clinicians to understand that most diseases are rarely the result of a single physiological problem localised to a single organ. (9) Diseases result from the complex web of interactions in which multiple organs and systems, and multiple physiological and biochemical pathways, are influenced by both environment and genetic predispositions.(10)

The holistic biological system approach to health and disease is defined by three main dimensions of medicine: emergence, robustness and modularity.(11) Emergence represents the unique characteristics of a complex system which are neither demonstrated by its individual parts nor predicted from a knowledge of the individual parts alone.(12) Robustness is the unique ability of biological systems to maintain homeostasis within a complex and dynamically evolving environment. (13) Modularity invokes a system that is characterised by units working functionally together to produce an optimal outcome that could have not been achieved by single units alone. (14) Modelled on these criteria, holistic medicine can be traced back to a large degree to the pioneering work of Hans Selye in endocrinology, which helped to establish the first connection between the function of two systems, namely stress and chronic disease. (15)

Holistic medicine responds to this call for a new model of medical care. It was created by collaboration among many clinicians, clinical laboratory specialists, health science researchers and health educators. (16) This type of approach in health care aims to strike balances

between theory and practice, mind and body, and prevention and cure. It is a system of care focussed broadly on how medicine is practised rather than narrowly referring to specific treatment modalities in practice. Overall, it is a form of medicine that is based on scientific evidence, but is also patientcentred care that recognises that each person has a unique biochemical individuality characterised by complex interactions of physical, psychological, social and spiritual dimensions.(17) Therefore, in multi-layered clinical practice, many questions cannot be answered by referring solely to a well-conducted trial, as they require additional information obtained from sources like experience and observation.

In this challenging environment, the whole-system approach has matured as a viable option for research and analysis. Fundamental to this paradigm shift in medicine is a new philosophical understanding of what constitutes health. Within the recent history of orthodox medicine, health has been mainly described as what it is not, namely the absence of disease.(18) However, in its classic definition of 1948 the World Health Organisation (WHO) stated that health is 'a state of complete physical, social and mental well-being, and not merely the absence of disease or infirmity'. This definition was expanded by WHO with the goal of emphasising the importance of social and personal resources as well as physical capabilities to health and disease. In this dynamically changing context of healthcare, a new concept of translational research has emerged. It is known as whole-systems research and aims at evaluating the physiological, psychological and behavioural aspects of each individual, thereby engendering a multidimensional outcome.(19)

The research model of orthodox medicine is driven by conventional statistical analysis for validation, although efficacy established in experimental research may not always translate to clinical practice. (20)

A research method based on narrow statistical analysis has a profound impact on what types of experiments can be conducted and how they are designed. (21) Clinicians of complementary medicine understand the constraints imposed by this model and find it limits translation of research findings to clinical practice. Common limitations of conventional research area:

- the quantification of behavioural changes and patients' experience, which require a longer period of study than that allocated to most conventional trials
- feasibility, costs, practitioner competence, patient compliance and the validity of proven and unproven practices<sup>(22)</sup>

The need to apply research in clinical practice requires that the research method embraces a pragmatic approach. (23)

Most of these evaluations are complex, but involve invaluable data. Research findings derived from a practice in action produce knowledge about pragmatic clinical applications and at the same time emphasise their external validity. (24) Whole-system research could include the role of such findings, and many other qualitative data, in health and disease.

Much of orthodox medicine requires the use of conventional research methods to demonstrate that a specific treatment is effective for a specific disease. Wholesystems research supports a theoretical framework within which a study design allows for variables to be measured with a level of precision and to influence outcomes.(25) For example, at the individual level, this system of research allows for physiologic, psychological, behavioural, and other levels of measurement to be appraised with a multidimensional outcome reflective of the complexity of human biology function.. This new model of research differs considerably from the traditional approach epitomised by randomised controlled trials (RCTs).

#### **ARTICLE**

Fonnebo et al. (26) summarise the differences between research models in health care (Figure 1). In this example, it is apparent that the focus of research proposed by the pharmaceutical/ orthodox medical model is oriented toward disease. It has been defined as a 'disease-centred' model. Conversely, the complementary and alternative (CAM) research model is a 'patient-centred' one consistent with the teaching of holistic medicine. (27) The ability to capture research outcomes in multiple measures, including those related to the patient's experience, is crucial for obtaining a balanced evaluation of practice. Ultimately, whole system research is more likely to secure translation of research from 'bench to the bedside', as well as from the 'bedside to the bench".

An important factor in research is the relationship between practitioner and patient<sup>(28)</sup> that has been incorporated into the evolving concept of 'relationship-centred' care. In this model of care, the focus is on the importance of human relationships, with the experience of the patient being

central in the process of health and disease. Patients should be considered within the framework of their complex and unique individuality with focus placed upon their ability to embrace communication, mindfulness, respect and social responsibility. Studies measuring the clinical impact of the relationship between practitioner and patient have shown variable outcomes depending on the quality of that connection. (29) A whole-system approach is theoretically the most appropriate method for analysing both qualitative and quantitative data, and so helping to identify how to improve clinical care. (30)

With the complexities involved in conducting research, it is arguable that the best model of evidence is that which can identify what is relevant in the evaluation of complex interventions like integrative practices. The conventional model of research, with its hierarchical model based on internal validity (involving rigour and removal of bias) and external generalised validity, is restricting the interpretation of multiple methods and designs, while limiting

research that might produce pragmatic but equally rigorous evidence. (31)

A whole-system research approach aligns and unifies methodologies that aim to validate specific effects with potential for high internal validity as well as those that explore the utility of practices in real clinical settings and are characterised by high external validity. Interestingly, the planning phase of this system approach aims to include collection of all the relevant data and variables from patients and clinicians that may refer to the findings of specific research.(32) In this way, whole-system research proposes a multimodal healthcare approach that can be translated into clinical practice and so provide indications of individualised treatment. Theoretically, this method will more accurately evaluate the healthcare currently being provided to patients. There are several papers urging researchers to move beyond the RCT.(33) One example of whole-system research is the study conducted by Ritenbaugh et al. (34) who examined the effect of wholesystem traditional Chinese medicine versus standard of care for the treatment of temporomandibular disorders. In this study, improvement was seen when participants were randomised to wholesystem treatment interventions beyond that applied in the standard care group. Another example of a whole-system research approach is the understanding of pain perception. The experience of pain is unique, subjective and reliant on the individual's perception of their own pain. Brooke & Tracy's (35) definition of pain perception implies that it involves more than the physical effects of pain from an injury; rather, pain perception includes psychological and social factors, which vary greatly among individuals.

The model of whole-system research focuses on providing a personalised medicine model that includes genomics and genetic influences on conditions as well as individual responses to treatments. One way to capture these important outcomes is to engage biostatisticians in creating modelling

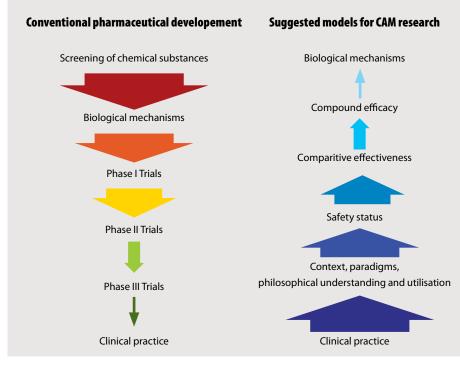


Figure 1. The gatekeeper. Two models of care. Adapted from Fonnebo et al.(2007)

and analysis. Researchers should be encouraged to add qualitative measures to studies because they can provide a source of data for unexpected outcomes. As new and innovative tools and technology for genomic discoveries become available, they can be utilised in observational research approaches. As Khoury *et al.* <sup>369</sup> argue, a whole-system research approach conceptualises the predictive, preventive, personalised and participatory nature of a proposed new health care model.

The credibility of research depends on a critical assessment by peers of the strengths and weaknesses in a study's design, conduct and analysis. A critique of whole-system research is the lack of strength and rigour of its

methodology. A recent epidemiological study found that the rationale behind the choice of potential confounding variables was often not reported in research studies (37). That included their eligibility criteria. (38) Others have argued that without sufficient clarity of reporting, the benefits of research might be negatively affected, (39) so a stricter guideline in reporting observational studies should be adhered to. The gold standard of research trials is the RCT. To improve the quality of RCT reporting, the Consolidated Standards of Reporting Trials (CONSORT) statement was developed in 1996 and revised five years later. (40) Many current medical journals support this initiative and require that researchers of all modalities adhere to this model (Plint et al. 2006). (Figure 2)

More recently another research methodology has established guidelines for reporting observational research: the Strengthening the Reporting of Observational Studies in Epidemiology (STROBE) statement. This guideline describes a continuum from the discovery of new findings to the confirmation or refutation of previous ones.<sup>(41)</sup>

While some studies are essentially exploratory and raise interesting hypotheses, others pursue clearly defined hypotheses in available data. The aim of any type of research model, including a whole-system approach, is an outcome that maximises benefits and minimises potential harm. When clinical guidelines are being formulated the strength of evidence and burden/ risk to the patient are critical; however, this may not always be an achievable outcome because of the presence of confounding variables and limited data. Therefore, it is arguable that proposed health interventions which carry a high burden/risk for the patient call for a higher level of evidence, while practices presenting a lower risk may be incorporated into clinical practice. (42)

One of the most significant differences between the system-research and RCTs involves the quantification of risk. In high risk/burden RCTs outcome measures are relatively easily identified. Due to the high complexity of wholesystem research a small variable may change outcomes and contain risk. As illustrated by MacPherson et al., (43) a strength of whole-system studies is the ability they afford researchers to translate individual differences and complex systems approaches, which carry a small degree of risk, thereby negating the high risk burden that group averages propose. Furthermore, a whole-system approach embraces the use of a laboratory system and RCTs, but it proposes to use them as part of, and not exclusive of, a holistic framework. In this way, this new model of research implies not only a much greater degree of measurement, but also a very different



#### **CONSORT 2010 Flow Diagram**

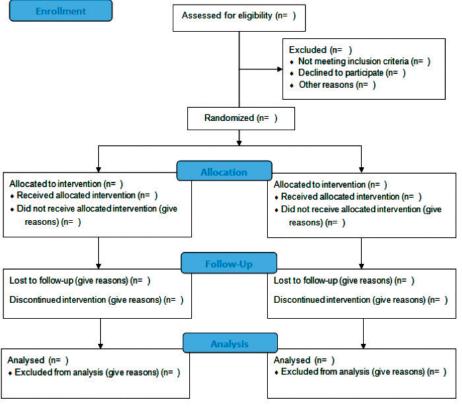


Figure 2.

kind of measurement, which translates more accurately the dynamics of normal function and illness into pragmatic practice.

Health is a dynamic complex network of biological functions. However, because it derives from the germ theory, orthodox medicine is based on a reductionist model of care. This is in clear contrast to a whole-system research approach, which analyses the underlying causes of disease within the context of an individual's biochemical uniqueness.

"WITH THE EMERGENCE
OF A NEW MODEL
OF MEDICINE
INVOLVING COMPLEX
INTERVENTIONS THERE
IS A HEIGHTENED
NECESSITY TO CONDUCT
PRAGMATIC TRIALS
AND STUDIES OF THESE
INTERVENTIONS BY
USING DIFFERENT DATACOLLECTION SCHEMES
AND DIFFERENT
METHODOLOGIES IN
CLINICAL TRIALS."



With the emergence of a new model of medicine involving complex interventions there is a heightened necessity to conduct pragmatic trials and studies of these interventions by using different data-collection schemes and different methodologies in clinical trials. The orthodox medicine concept of health is built upon 'structure, process and outcome'. (44) This model is not suited to complementary medicine's multiple interventions and multi-dimensional outcomes. According to Laine & Davidoff<sup>(45)</sup> the research model in RCT is too simplistic to reflect the real health care environment. In contrast, the wholesystem research model refers to complex systems that consist of a large number of interacting elements characterised by non-linear instabilities. Furthermore, this system takes into account that small changes in one area can cause large changes across the whole system, and that complex systems do not have clear boundaries. In a whole-system research approach, the focus is on interactions among elements and not on the elements in isolation from one another.

The values of RCTs are mainly to be found in the method of controls in their study designs and their conceptual frameworks, which sustain critical thinking about the particular question they address. (46) It could be argued that the whole-system research approach and RCTs are not incompatible models. One way of making them work together is to apply data from observational and experimental studies to conduct larger studies, from which controlled trials could be built. However, these RCTs would remain subject to changes to reflect changes in system design. The advantage is improved clinical outcomes.

It is clear that although there is the need to apply more rigorous research in complementary medicine, the current evidence-based practice model, with its hierarchy of knowledge and its reliance on RCTs, is either incomplete or inadequate. A whole-system research proposes a non-algorithmic approach to health and disease because of the importance given

to patient experience. (47) Although at the theoretical level this is a very effective approach, no one has yet delineated a simple analytical model for applying it so that variables as diverse as biological markers and ethnographic observations can be included in the one model. The question is about how to evaluate the evaluations themselves. Lewith *et al.* (48) refers to the whole-system research model as an established field that combines both quantitative and qualitative data, capturing the contextual data necessary for replicating programmes and dealing with pragmatic practice.

Ultimately, whole-system research looks at effectiveness, not efficacy, and aims to measure the degree of benefit to real world clinical practice. Gartlehner et al. (49) have shown seven criteria for effectiveness in trials: (a) populations in effectiveness studies should reflect the initial care facilities of a diverse population; (b) eligibility criteria must allow the population to reflect the homogeneity of the actual population, taking into account their comorbidities, compliance rates and use of medications; (c) health outcomes relevant to the studied condition should be measured and given relevance; (d) the duration of the study should mimic length of treatment in the clinical setting to enable the assessment of outcomes, with compliance to be considered an outcome measure; (e) the sample size should be sufficient to detect a clinically significant difference in patients' quality of life; (f) adverse events should be limited to critical issues; and (g) statistical analysis should not exclude patients with protocol deviations, compliance issues, adverse events, co-morbidities and other concomitant treatments.

The process of publishing wholesystem research studies differs significantly from the reporting of a simple RCT. As whole-system research is a complex process ample space should be dedicated to the definition of procedures, interactions and outcomes of every study. The question that can be asked is whether conventional journal articles are the best place for reporting whole-system research. If, in fact, journals have just enough space to publish concept, design, methods, discussions and conclusions, then supplementary material could be created to promote ancillary study of whole-system research.

#### Conclusion

Change is not always easily performed and there are many challenges that confront clinicians who want to translate research into practice. The role of holistic clinicians is to serve as guides and interpret the vast array of potential approaches that exist. For this reason, a new model of whole system research could emphasise data findings stemming from clinicians' experience and long traditions of practice to validate some therapies as safe and beneficial. This type of research

methodology allows research questions to be asked in a more profound ways. A well designed whole-system research model, that explores new ways of understanding alternative healing systems, may provide enough evidence to sustain the present paradigm shift in medicine and health and exert an influence on the pragmatic practice of health care in a way that RCT designs are unable to do.

To correspond with the author please email info@manuelaboyle.com.au

#### **REFERENCES**

- 1. Alberti G. Noncommunicable diseases: tomorrow's pandemics. Bull World Health Organ. 2001; 79(10): 907
- McKeown R. The Epidemiologic Transition: Changing Patterns of Mortality and Population Dynamics Am J Lifestyle Med. 2009; 3(1):195–26S.

- 3. Kessler RC. Long-term trends in the use of complementary and alternative therapies in the United States. Am Intern Med. 2001; 135: 262-268
- Howard D. Quality and Consumer Choice in Healthcare: Evidence from Kidney Transplantation Top Econ Anal Policy. 2006; 5(1): 1349
- Cook D. Evidence-based critical care medicine: a potential tool for change. New Horiz. 2008; 6(1): 20–5
- Weinstein JN, Brown PW, Hanscom B, Walsh T, Nelson EC. Designing an ambulatory clinical practice for outcomes improvement: From vision to reality. Qual Manag Health Care. 2000; 8(2): 1–20.
- Halfon N, Harson J. Lifecourse Health
   Development: Past, Present and Future.

   Matern Child Health J. 2014; 18(2): 344–365.
- 8. Kirschner MW. The Meaning of Systems Biology. Cell. 2005; 121(14): 503–504
- Lohr KN, Steinwachs, DM. Health services research: an evolving definition of the field, Health Serv Res. 2002; 37(1): 7-9



Sleep problems, fatique and lowered immunity. Easy to prescribe, effective formulas.

Stress.

- ✓ No animal products
- ✓ No gelatin
- ✓ No added sugar
- ✓ No artificial flavours or colours
- M DESTRESS FORMULA

  La We Xao Yao Pan

  HIGH POTENCY

  Contains 60 film-coated tablets

  AUST L 125315

  Kosher & suitable for vegetarians
  - ✓ High Strength 8:1
  - ✓ Natural film coated tablets

#### **ARTICLE**

- Cardon LR, Bell JI. Association study designs for complex diseases. Nature Reviews Genetics. 2001; 2(2): s91–99
- Gilchrist M, Thorsson V, Li B, Rust AG, Korb M, Roach JC, Kennedy K, Hai T, Bolouri H, Aderem A. Systems biology approaches identify ATF3 as a negative regulator of Tolllike receptor 4. Nature. 2006; 441(7090):173-8
- **12.** Rueger A. Robust Supervenience and Emergence. Phil Scienc. 2000; 67(3): 466-489
- 13. Applebaum SL, Pan TC, Hedgecock D, Manahan D. Separating the Nature and Nurture of the Allocation of Energy in Response to Global Change. Integr. Comp. Biol. 2014; 54(2): 284-295
- **14.** Barabasi AL, Gulbahce N, Loscalzo J.Network medicine: a network-based approach to human disease. Nature R Gen. 2011; 12: 56-68
- Leidy NK. A physiological analysis of stress and chronic illness. J Adv Nurs. 1989; 14(10):868-76
- 16. Boon HV, Verhoef D, O'Hara D, Findlay A. From parallel practice to integrative health care: A conceptual framework. BioMed Centl Health Serv Res. 2004: 4:15.
- **17.** Sackett DL. Evidence-based medicine. Semin Perinatol. 2007; 21(1): 3-5
- **18.** Sartoriuos N. The Meanings of Health and its Promotion Croat Med J. 2009; 47(4): 662–664
- 19. Paterson C, Baarts C, Launso L, Verhoef MJ. Evaluating complex health interventions: A critical analysis of the 'outcomes' concept. BMC Complement Altern Med. 2009; 9:18
- **20.** Beauchamp TL, Childress JF. Principles of Biomedical Ethics (4th ed). New York: Oxford University Press; 2009
- 21. Beach MC, Inui T. Relationship-centered Care A Constructive Reframing .J Gen Intern Med. 2006; 21(Suppl 1): S3–S8
- 22. Boland E, Monsod T, Delucia M, Brandt CA, Fernando S, Tamborlane WV. Limitations of conventional methods of self-monitoring of blood glucose: lessons learned from 3 days of continuous glucose sensing in paediatric patients with type 1 diabetes. Diabet Care. 2001; 24(11):1858-62
- 23. Coulter ID, Khorsan R. Is health services research the Holy Grail of complementary and alternative medicine research? Altern Ther Health Med. 2008; 14(4): 40-5
- 24. Verhoef MJ, Lewith G, Ritenbaugh C, Boon H, Fleishman S, Leis A. Complementary and alternative medicine whole systems research: beyond identification of inadequacies of the RCT. Complement Ther Med. 2005; 13(3):206-12

- 25. Ritenbaugh C, Aickin M, Bradley R, Caspi O, Grimsgaard S, Roaux E. The concept of function in modern physiology J Physiol. 2014; 592(11): 2245–2249
- 26. Fonnebo V, Grimsgaard S, Walach H, Ritenbaugh C, Norheim AJ, MacPherson H, Lewith G. Researching complementary and alternative treatments--the gatekeepers are not at home. BMC Med Res Methodol. 2007; 11(7): 7
- Sackett DL, Rennie D. The science of the art of the clinical examination. JAMA. 2002; 267(19): 2650-2
- **28.** Quinn J, Smith M, Ritenbaugh B, Watson J. Research guidelines for assessing the impact of the healing relationships in clinical nursing. Altern Therap. 2003; 9(3); 65-79
- 29. Booth CM., Tannock IF. Randomised controlled trials and population-based observational research: partners in the evolution of medical evidence. B J Cancer. 2014; 110: 551–555
- **30.** Ritenbaugh C, Hammerschlag R, Calabrese C, Mist S, Aickin M, Sutherland E. A pilot whole systems clinical trial of traditional Chinese medicine and naturopathic medicine for the treatment of temporomandibular disorders. J Altern Complement Med. 2008; 14(5): 475-87
- **31.** Radwin L.Knowing the patient: a process model for individualized interventions. Nurs Res. 2005; 44: 364–70
- **32.** Tucker JA, Reed GM. Evidentiary Pluralism as a Strategy for Research and Evidence-Based Practice in Rehabilitation Psychology. Rehabil Psychol. 2008; 53(3): 279–293
- **33.** Booth BJ, McBride T. Patient focus and the quality framework. Aust Fam Physician. 2007; 36(1-2): 20-2
- **34.** Ritenbaugh C, Verhoef M, Fleishman S, Boon H, Leis A. Whole systems research: a discipline for studying complementary and alternative medicine. Altern Ther Health Med. 2003; 9(4): 32-6
- 35. Brooks J, Tracey I. From nociception to pain perception: imaging the spinal and supraspinal pathways. J Anat. 2005; 207(1): 19–33
- **36.** Khoury MJ, Gwinn M, Glasgow RE, Kramer BS. A Population Perspective on How Personalized Medicine Can Improve Health Am J Prev Med. 2012; 42(6): 639–645
- **37.** Pocock SJ, Simon R. Sequential treatment assignment with balancing for prognostic factors in the controlled clinical trial. Biometrics. 2005; 31(1):103–115

- **38.** Tooth L, Ottenbacher KJ, Ostir GV,
  Ottenbacher SM. A review of two journals
  found that articles using multivariable
  logistic regression frequently did not report
  commonly recommended assumptions. J Clin
  Epidemiol. 2004; 57: 1147-52
- **39.** Bogardus ST, Holmboe E, Jekel JF. Perils, pitfalls, and possibilities in talking about medical risk. JAMA. 2009; 281(11):1037–1041
- 40. Moher D, Hopewell S, Schulz KF, Montori V, Gotzsche PC, Devereaux PJ. CONSORT 2010 Explanation and Elaboration: Updated guidelines for reporting parallel group randomised trials. J Clin Epidemiol. 2010; 63(8): e1-37
- 41. Vandenbroucke JP, von Elm E, Altman DG, Gotzsche PC, Mulrow CD, Pocock SJ. Egger M for the STROBE initiative. Strengthening the Reporting of Observational Studies in Epidemiology (STROBE): Explanation and Elaboration. PLoS Med. 2007;4: e297
- **42.** Rychetnik L, Frommer M, Hawe P, Shiell A. (2002) A Criteria for evaluating evidence on public health interventions. J Epidemiol Community Health. 2002; 56:119-127
- **43.** MacPherson H, Peters D, Zollman C. Closing the evidence gap in integrative medicine. BMJ. 2009; 339: b3335.
- **44.** Bell RA, Kravitz RL, Thom D, Krupat E, Azari A. Unmet Expectations for Care and the Patient-physician Relationship. J Gen Intern Med. 2002;17(11): 817–824
- **45.** Laine C, Davidoff L. Patient-centered medicine: A professional evolution. JAMA. 2006; 275(2): 152–156
- **46.** Zakiya Al-Busaidi Q. Qualitative Research and its Uses in Health Care. Sultan Qaboos Univ Med J. 2008; 8(1): 11–19
- 47. Gabbay J, le May A. Evidence based guidelines or collectively constructed "mindlines?" Ethnographic study of knowledge management in primary care. BMJ. 2004; 329(7473): 1013
- **48.** Lewith G, Jonas W, Walach H. Clinical Research in Complementary Therapies (2nd ed). Churchill Livingstone.
- 49. Gartlehner G, Hansen RA, Nissman D, Lohr KN, Carey TS. Criteria for Distinguishing Effectiveness From Efficacy Trials in Systematic Reviews Technical Reviews, No. 12. 2006



# Quadratus lumborum: anatomy, physiology and involvement in back pain

**Patrick de Permentier** | BSc (Hons), UNSW, MSc (Research), UNSW, Grad Cert HEd (UNSW), Diploma Remedial Massage (NSW School of Massage).

Quadratus lumborum (QL) is a central, square-shaped muscle belonging to the deep layer of the dorsolateral abdominal wall. The fibres of each QL run slightly diagonally from the rib and spine inferiorly and laterally towards the posterior ilia. QL resides in the area between psoas major and psoas minor muscles and the tendon of origin of transversus abdominis. It originates from the posterior iliac crest and the iliolumbar ligament and inserts on the transverse processes of L1-L4 and the inferior border of the 12th rib (see Figure 1). Its innervation is the ventral rami of T12-L4 and branches of the lumbar plexus.

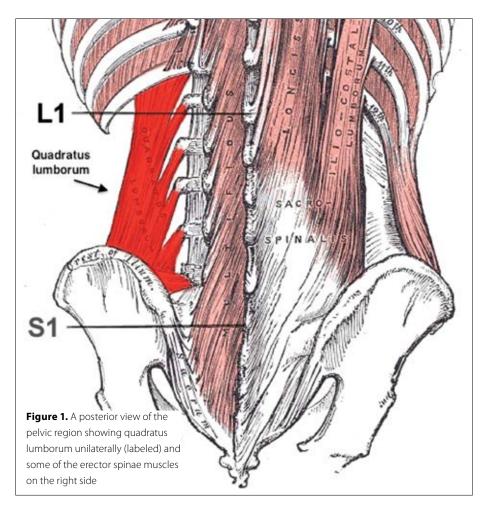
The main actions of QL are to laterally flex the trunk when the muscle is contracted on one side. Contraction of both QLs extend the lumbar segment of the vertebral column. In addition, QL fixes the 12th rib during movements of the thoracic cage during forced expiration. QL also holds the 12th rib inferiorly in inspiration, thereby allowing the thoracic cage to expand fully. However, laboured breathing can be caused by QL dysfunction or imbalances in the postural muscles such as the erector spinae, abdominals and psoas muscles.

Functionally, QL positions the spine relative to the pelvis, and aids in maintaining an upright posture while co-ordinating with the erector spinae muscle group to create fine lateral movements and extension. On standing, the two QLs, in conjunction

with gluteus medius, position the upper body over the lower body. While walking, QL and gluteus medius aid in pelvic stabilisation as body weight shifts from one foot to the other. In addition, QL lifts the iliac crest towards the thoracic cage as weight shifts to the other foot, which allows the leg to swing forward without the foot touching the ground.

#### QL and its relationship to back pain

Although there are many possible causes of back pain and discomfort, such as a herniated disk or sciatic nerve entrapment, QL in conjunction with weakness in the lower fibres of the erector spinae muscle fibres can cause the QL muscles to chronically contract bilaterally and with impending muscle





fatigue result in an adaptive postural shift. This could be the case with long periods of computer use in a seated position, especially on a non-ergonomic chair.

Other problems associated with developing low back pain are decreased vascular flow, and the formation of adhesions in the muscle and fascia wrapping around muscle fascicles (perimysium) as well as fascia surrounding the whole muscle (epimysium). This chronic contraction of QL in the lower back can cause the fascial sheath to transmit a strain through the rest of the back and into the neck and shoulder regions. The other condition, which may result, is a developing muscle spasm which forcefully contracts when it becomes hyper-excitable.1 Postural deviations such as kyphosis can aggravate back pain or lumbar discomfort by altering the body weight anteriorly, placing increased tension on QL and other muscles such as multifidus, levator scapulae and erector spinae in an attempt to maintain a correct centre of gravity. In this regard, it is very important to consider the body as a kinematic chain where a muscular or fascial shift in tension in one part of the body would be most likely to affect tension in the same tissues in a more distal part of the body.

Another problem with a tight QL is a condition that can develop during the leg swing phase in gait. It is called 'hip hiking' where a weak gluteus medius or gluteus minimus will force the QL in conjunction with tensor fasciae latae to become the compensatory prime movers of hip abduction. This results in excessive lateral compression on the lumbar segments of the spine.

Before any treatments are considered it is useful to assess muscle and postural imbalances (e.g. kyphosis, lordosis) which, if corrected, could reduce QL tension and the associated lumbar pain and/or discomfort. According to Reaves<sup>3</sup> clinical features could include an elevated pelvis on the side of pain and a lumbar area laterally flexed to the side of pain.

#### Some effective treatment techniques

Possible alternative therapy treatments include stretches in an attempt to return the fascia to a normal tension state and manually elongate the QL muscles that have adaptively shortened. Stretches could be applied passively, which elongates a shortened muscletendon unit and peri-articular connective tissues by moving a restricted joint a little past the existing ROM.

"BEFORE ANY TREATMENTS ARE CONSIDERED IT
IS USEFUL TO ASSESS MUSCLE AND POSTURAL
IMBALANCES (E.G. KYPHOSIS, LORDOSIS) WHICH, IF
CORRECTED, COULD REDUCE QL TENSION AND THE
ASSOCIATED LUMBAR PAIN AND/OR DISCOMFORT."

Another type of stretch is a proprioceptive neuromuscular facilitation (PNF) stretch, which reflexively relaxes tension in shortened muscles before or during stretching. Strengthening exercises of QL are recommended to aid in stabilising the pelvis relative to the lumbar segment of the spine.

Soft tissue mobilisation techniques include friction massage, myofascial release, acupressure and trigger point therapy. Trigger point therapy, according to Perry<sup>4</sup> can be used to treat intense, deep aching and, on occasions, a sharp stabbing pain which can refer to areas such as the hip joint, sacro-iliac joints, and lower gluteal regions. These mobilisations generally target connective tissue such as fascia, which can restrict muscle contractions and thereby affect movements.

In conclusion, postural dysfunction, which is a common problem today and which contributes to back pain and discomfort, can in part be addressed by targeting treatment towards quadratus lumborum.

Patrick de Permentier BSc (Hons), UNSW, MSc (Research), UNSW, Grad Cert HEd (UNSW), Diploma Remedial Massage (NSW School of Massage). Lecturer, Anatomy Department, School of Medical Sciences, Faculty of Medicine, UNSW. Lecturer in Anatomy and Physiology, NSW School of Massage, Sydney. ATMS Research Committee member, Council member ANZACA (Australian and New Zealand Association of Clinical Anatomists)

#### **REFERENCES**

- MedicineNet,2015. Muscle spasms. Whata causes muscle spasms? [updated October 28, 2015]. Available http://www.medicinenet.com/muscle\_spasms/page7.htm
- 2. Kerrigan DC, Frates EP, Rogan S, Riley PO. Hip hiking and circumduction: quantitative definitions. Am J Phys Med Rehabil. 2000; 79 (3): 247-52.
- Reaves W. Low Back Pain: The Quadratus Lumborum muscle., Pacific College of Oriental Medicine [updated October 22, 2014]. Available from: http://www.pacificcollege.edu/news/blog/2014/10/22/low-back-pain-quadratus-lumborum-muscle
- 4. Perry, L. The Quadratus Lumborum Trigger Points: Masters of Low Back Pain. [updated 2011]. Available from: http://www.triggerpointtherapist. com/blog/quadratus-lumborum-trigger-points/ql-trigger-points-masters-low-back

#### PREVIOUS ARTICLES BY THIS AUTHOR

- 1 de Permentier P Effective Research: A Discussion of Essential Elements. JATMS. 2011, 17(2): 22
- 2 de Permentier P. An Anatomical Perspective on Growing Pains in Children. JATMS. 2012, 18(1): 33 -34
- 3 de Permentier P. An anatomical evaluation of skin scar tissue. JATMS. 2013, 19(4): 236 – 238
- 4 de Permentier P. An anatomical and physiological evaluation of the periosteal layer surrounding bone and its implication in massage therapy. JATMS. 2014, 20(4): 272-273

Update on Research in Homoeopathy

#### Robert Medhurst | BNat ND DHom

The critics of homoeopathy consistently declare that there is no evidence to support its use. This is not true. The bigger issue is that the general public, the people who could really benefit from it, either hear nothing about the evidence for homoeopathy or hear the occasional declarations in the media that it doesn't work. What follows is significant evidence that supports the use of homoeopathy, in the form of some highlights in research in this area.

#### **Human Research**

1. Muscari-Tomaioli G, et al. Observational Study of Quality of Life in patients with Headache, receiving Homeopathic Treatment. British Homoeopathic Journal, 2001, 9, 4, 189-97. In this study, 53 people suffering from headaches were treated by the individual study authors using constitutionally prescribed homoeopathic medicines, completing SF-36 health-related quality of life questionnaires before and 4-6 months

after beginning the treatment. More than 60% of the subjects experienced an improvement in the condition.

2. Oberbaum M, et al. The effect of the homeopathic remedies Arnica montana and Bellis perennis on mild postpartum bleeding--a randomized, double-blind, placebo-controlled study: preliminary results. Complement Ther Med, 2005 13, 2, 87-90. Forty women experiencing postpartum bleeding were randomly assigned

NEW!

## BioMatrix™

STRICTLY PRACTITIONER ONLY

ethical | innovative | dedicated

Unique blend of specifically selected nutrients which play a role in the structure and function of the gastrointestinal mucosa and matrix

- Comprehensive formula combining N-acetyl glucosamine with the amino acids glutamine, threonine, proline and serine
- Low excipient powdered formula for flexible prescribing
- High solubility and pleasant taste for improved compliance
- Naturally flavoured with sustainably sourced superfood berry extracts



BioMedica Nutraceuticals | P 1300 884 702 or +61 2 9698 7683 | F +61 2 9698 9556 E info@biomedica.com.au | www.biomedica.com.au



to receive a mixture of Arnica 30C and Bellis 30C, Arnica 6C and Bellis 6C, or placebo. Mean haemoglobin values were measured at 72 hours post-partum, at which point it was found that those women given homoeopathic therapy experienced significantly less change in haemoglobin values than those given placebo.

- 3. Pai PN. Thiosinaminum in the Treatment of Plantar Fasciitis with Calcaneal Spurs. British Homoeopathic Journal, 1992, Oct, 81, 173-175. In this uncontrolled study, 43 people suffering from plantar fasciitis and calcaneal spurs were treated with homoeopathic Thiosinimum, Thiosinimum and Merc cor, or Thiosinimum and Merc biniod. Thiosinimum alone proved to be the therapy most likely to be helpful in resolving recently developed cases.
- 4. Popov A.V. Homoeopathy in the Treatment of Patients with Fibromyoma of the Uterus. British Homoeopathic Journal, 1992, Oct, 81, 164-167. In this study, 84 women suffering from various forms of uterine fibromyoma were prescribed individualised homoeopathic medicines over a period of 1 to 3 years. Assessments at the end of the treatment period found that pain was decreased in 79% of the subjects, abnormal bleeding was reduced in 75% of subjects and in the majority of subjects the treatment resulted in a reduction of fibromyoma volume.
- 5. Rai Y. Treatment of Drug Dependants with Homoeopathy. CCRH Quarterly Bulletin, 16, 3&4, 1994, 25-28. 261 people suffering from symptoms related to the withdrawal from drugs of dependence were treated with individualised homoeopathy. Remedies were given at 8 to 12 hours after ceasing use of the drug. Results: 209 (80%) of the subjects found the treatment to be effective.
- 6. Riveron-Garrote M, et al. Clinical Trial of Asthma, Boletin Mexicano, 1998, 31, 54-61. In this double-blind, randomised, placebo-controlled trial, 63 asthma sufferers were treated for 4 months with

either specific homoeopathic remedies or placebo. Assessed using peak flow rates, 97% of those taking homoeopathic medicines and 12% or those taking placebo experienced an improvement.

#### **Animal Research**

1. Labrecque G., Guilleminot J. Effect of Bryonia on Experimental Arthritis in Rats. Berlin Journal of Research in Homoeopathy, 1991, 1, 3, 169, (Congress Report Poster). In this study, 35 male rats suffering from arthritis were treated with placebo or 4X, 4C or 9C potencies of homoeopathic Bryonia for 15 days and assessed at various stages using grip strength body weight as assessment criteria. At the end of the treatment period, all of the Bryonia potencies had improved the condition when compared to placebo, with Bryonia 4C providing the best outcomes.

2. Rajkumar R, et al. Effect of a Homeopathic complex on oestrus induction and hormonal profile in anoestrus cows. Homeopathy, 2006, 95, 3, 131-5. From a group of 12 anoestrus cows, six were selected to receive treatment with a combination of homoeopathic medicines, given as 15 pills twice daily for 10 days. The remaining six cows acted as untreated controls. The treatment was effective in inducing oestrus in all of the six treated cows with an average of one conception per 1.83 services. In addition, the researchers found that oestradiol levels in the treated cows almost doubled from pre-treatment levels. Treatment results were seen at a mean interval of 27.5+/-5.3 days.

#### **Plant Research**

1. Banerjee P, Sukul S. Cuprum
Sulphuricum - a homeopathic drug can
combat toxic effect of Cu, promote seed
germination and peroxidase activity in
Vigna unguiculata. Int J High Dilution
Res, 2013, 12, 44, 129-130. Proceedings
of the XXVII GIRI Symposium; 2013
Sep03-04; Bern (Switzerland): High
concentration of copper can cause toxic
effects in some plants due to its redox
properties and can catalyze free radicals,
such as reactive oxygen species and

peroxide compounds. This Indian study was performed to examine the effect of homoeopathically prepared copper sulphate 200C on seed germination of Vigna unguiculata; 3 sets of 100 seeds were prepared for germination. Two sets were soaked in copper sulphate 200C and the third in a control substance. All were then exposed to material doses of copper sulphate. The seedling weight and length of germinating axis were observed after 24 hours, 48 hours and 72 hours. Water uptake percentages were recorded, total protein, chlorophyll, soluble and insoluble sugar were measured and the activity of peroxidase was determined. The results confirmed that in all the parameters observed, copper sulphate 200C-treated seeds showed significant changes as compared to controls.

#### **In-Vitro Research**

1. De A, et al. Potentized homeopathic drug Arsenicum Album 30C inhibits intracellular reactive oxygen species generation and up-regulates expression of arsenic resistance gene in arsenineexposed bacteria Escherichia coli. Zhong Xi Yi Jie He Xue Bao, 2012, 10, 2, 210-27. In more useful work from India's University of Kalyani, researchers looked into the effects of homoeopathically prepared Arsenic trioxide (Arsenicum album) on arsenic toxicity in E. coli. The bacteria were grown in a sub-bacteriocidal concentration of sodium arsenite and exposed to Arsenicum 30C or several controls via a randomised schedule and were assessed for glucose uptake, specific activities of hexokinase, lipid peroxidase, superoxide dismutase and catalase, intra- and extra-cellular sodium arsenite content, cell growth, cell membrane potential, DNA damage, intracellular reactive oxygen species, adenosine triphosphate, free glutathione content and expressions of arsB and ptsG genes. On analysis and in comparison to the controls used, it was found that the use of Arsenicum 30C was associated with a reduced arsenic toxicity in E. coli by inhibiting the generation of reactive oxygen species and increasing the tolerance to arsenite.

# The effects of massage therapy on immune function

and psychological outcomes within a psychoneuroimmunological framework.

#### **Dr Judy Lovas**

Good research starts with a question to extend existing knowledge.

Hans Selye pioneered investigations into the relationship between stress and health and demonstrated increased endocrine activity, ulceration of the gastrointestinal tract and changes in both lymphoid tissue and leukocyte circulation<sup>1</sup>. More recently, research questions have led to evidence of relationships between stress, immunity and disease<sup>2</sup>. For example, stress-related elevated levels of cortisol can aggravate depression-like behaviours and symptoms such as anxiety, insomnia and poor memory<sup>3</sup>.

There is clear evidence that stress can compromise, alter and disrupt cellular signals of the central nervous system (CNS), endocrine and immune systems. Since stress compromise and massage therapy (MT) decreases stress, it was natural to question how MT may affect immunosuppressive and psychologically negative effects of stress.

The effect of MT on immune functions of healthy subjects was investigated using a single case experimental design<sup>4</sup>. Two female subjects received massage in 4 consecutive weeks, followed by four weeks of no MT. This was repeated over the next 8 weeks. The two periods of no MT were the control (A) phases and two periods of MT once a week were the experimental (B) phases. During both B phases, each subject received a weekly one hour full body Swedish massage, to enhance relaxation. During each A phase the subjects received no massage.

Blood samples were taken in the control A phases and immediately before each massage during the B phases to test T and B cell numbers and activity, numbers of IgA, IgG, IgM, cortisol levels and trait and state anxiety levels.

Results indicated a consistent and significant trend of increased activity of both T and B lymphocytes and levels of serum IgG for both subjects during the B phases compared to the A phases. In addition, both subjects demonstrated a reduction in trait anxiety over the period of MT. Therefore, this research suggests that MT can produce measurable immunomodulation and that an enhanced immune response may occur from an increased activity of the parasympathetic nervous system.

This study examined links between relaxation and immune function and is an example of research in psychoneuroimmunology (PNI). PNI is the study of interactions between the brain, endocrine system, immune system, health and behaviour<sup>5</sup>. The scientific study of PNI offers a greater understanding of cellular and molecular interactions between immunity, behaviour and psychological processes. Today, PNI research continues to question, investigate and broaden our understanding of the intimate, complex communications between mind and body.

Judy Lovas conducts ATMS accredited seminars in Evidence based Relaxation Therapy to enhance patient health and improve clinical practice.

www.artandscienceofrelaxation.com

#### REFERENCES

- 1. Selye H. (1956). The Stress of Life. USA: Longmans, Green & Co. Ltd.
- 2. Kemeny M & Schedlowski M. (2007).

  Understanding the interaction between psychosocial stress and immune-related diseases. Brain, Behavior & Immunity, 21, 1009-1018
- Kiecolt-Glaser J, Robles T & Glaser R. (2002).
   Emotions, morbidity and mortality: New perspectives from psychoneuroimmunology.
   Annual Review of Psychology, 53, 83-107.
- Lovas J, Craig A, Raison, R, Weston K, Segal Y & Markus M. (2002). The effects of massage therapy on the human immune response in health adults. Journal of Bodywork and Movement Therapies 6, (3), 143-150
- Schedlowski M & Tewes U. (1999).
   Psychoneuroimmunology: An interdisciplinary introduction. New York: Kluwer Academic/Plenum Publishers.



# Working within the law

Lynn Hart | Expect More Health, Perth WA

Although it is not a 'sexy' topic, consideration needs to be given to how we can protect ourselves from professional risk in our practices. Australians are now the second most litigious people in the world. Although natural medicine practitioners are rarely sued (yet) - and professional indemnity insurance overheads reflect - this we do need to know how to act ethically and to be able to protect ourselves from potential legal action.

Acknowledgement for the ideas and content of this article must be given to Associate Professor Phil Watts who addressed psychotherapists and counsellors at a workshop in Perth in March 2015 which I attended. As the content of his talk is just as applicable to natural medicine professions I have adapted it from his notes with ATMS members in mind.

#### **Fiduciary Responsibility**

Our clients rely on and act upon our advice. Although we may assume that after hours we are free to casually say what we like, it is crucial to understand that our duty of care extends to any circumstance where it may be seen as professional advice even if a person is not at the time paying us for our time or advice.

In legal terms a fiduciary is someone who is entrusted to act in the best interest of another, and the fiduciary relationship exists whenever there is a trust relationship. An example would be a middle-aged man attending a workshop presentation you have arranged. During the day he approaches you for advice about whether to disclose his depression to his employer. You give brief advice for him to be candid with his employer even though he is not your patient and you do not know a lot about his circumstances. He places special weight on your advice and discloses his condition to his boss and is subsequently sacked. Due to his age he cannot get a new job.

Are you liable in any way or can you be rendered liable in a litigious world? Unfortunately most of us will believe we are not liable, but the law may say otherwise.

#### **Legal Risks**

There are many areas of legal risk for natural medicine professions. The easiest to overstep are probably consumer laws. Making false and misleading statements such as 'I can fix you in six sessions' should be a thing of the past, but practitioners need to get someone else to read any copy which will be printed or used in business advertising to make sure that we are following our own Code of Ethics and that we are adequately disclosing risks. Making unsupported claims comes under state and federal laws about misleading and deceiving consumers and includes what is called unconscionable conduct.

Providing professional services requires us to adhere to standards of service provision and acceptable charges for our service, and for us to disclose both the suitability of the service and the length of time for treatment. Even if you know your treatment protocols are good and that they will work if adhered to, clients should be asked to sign a consent form as part of shared decision-making at the outset of treatment to reduce legal risk and to bullet-proof a business.

Informed consent is about patients knowing what you are going to do so that they can decide to participate or not. They need all the facts to make that decision and time to give it consideration. This is important to consider on a first visit when patients may already be nervous about the visit and potentially unable to fully comprehend all of what is said. Putting details in writing and having a patient's signature added is good policy.

"INFORMED CONSENT IS ABOUT PATIENTS
KNOWING WHAT YOU ARE GOING TO DO SO
THAT THEY CAN DECIDE TO PARTICIPATE OR
NOT. THEY NEED ALL THE FACTS TO MAKE THAT
DECISION AND TIME TO GIVE IT CONSIDERATION."

The second area of law which we need to be alert to is negligence. This is interpreted as an unintentional fault or carelessness resulting in injury and can be a difficult area when we may work outside an evidence-based system for some of our modalities. If we are alert to our duty of care with the public we want to lower the risk of being found incompetent and of being sued. Even if it irks you to do so, managing risk includes the use of a client consent form which informs patients that you use experimental techniques which are not evidence-based. Although we all want to be busy doing our work without having to assess and plan for risk, a signature on a consent form now could save us from a future legal challenge for damages, which is stressful, time-consuming and potentially expensive.

Australians like to sue and they are doing it in greater and greater numbers every year. Professor Webb even suggested that sueing has now become endemic for some professions, such as counselling. Professionally natural medicine practitioners are an easier target than a medical specialist who is paying large premiums to be protected from sophisticated damages claims.

Other legal concerns which may increase for our profession in the future include involvement in coronial enquiries where drug use, depression and suicide are involved. As our professional competency increases and we confidently take on complex cases involving patients using many medications and services we need to be aware that full note-taking and record-keeping will be essential if we ever receive a subpoena to appear in court. Handwritten notes are sufficient and do not need to be re-typed. It is against the law to destroy or alter notes after the subpoena has been received. If you do alter hand-written notes always date them to avoid having it look as if they were retrospectively altered. Our profession will only be asked to present fact in a court; other professionals such as psychiatrists, osteopaths and chiropractors will be asked to present opinions to court.

The Family Court is also a potential legal entity to consider. In counselling and psychology practitioners are advised to manage risk by using an intake question that determines whether both parents should give consent before agreeing to see their child.

At present unregistered natural medicine professions do not have Mandatory Reporting laws, but we need to know how to ethically deal with information which will be given to us in the course of our work. If we develop a reasonable suspicion we can play it safe by reporting to the Department of Child Protection. Naturopaths, herbalists and massage therapists who also hold nursing qualifications need to know that Mandatory Reporting does apply to them even if the information is given to them in the course of their practising outside the scope of nursing.

A well written client intake form which collects information and explains treatment techniques can reduce negligence risks and improve client consent. This may need to be repeated during the course of treatment if circumstances change significantly. Consider anything you write as a potential legal document. Hand-writing notes as you go using a consistent shorthand which allows you to stay in the therapeutic relationship may be preferable to typing. Keeping dated phone pads in which you record what is said during phone calls can prevent misunderstandings and lead to better outcomes if your professional expertise is later called into question.

In Civil Law the Statute of Limitations for an adult is seven years but for a child the seven year period only begins from the day they turn eighteen, so we need to consider what policy we will have for keeping records for such extended periods of time.

It is possible to have a professional provision in your personal will which nominates someone other than family to deal with the shredding of notes and the winding up of your business affairs in the event of your death. This is a good option if you have a colleague or business contact who understands your business and can act in your best interests.



# Dr Mikio Sankey's Advanced Energy Healing

Esoteric Acupuncture: Moving into Heart Space

– holistic health care for an emerging new
perspective on a paradigm in transition

#### **Christine Gruettke**

The new millennium is seeing change that is both fast and global. Twenty-first century medicine is evolving rapidly and, with the help of quantum science, beginning to move towards the realisation that we may not be able to correct a problem with the tools that were around when that problem was created. Along with the emergence of a new scientific and healthcare paradigm that is embracing the elements of wholeness and life force, or energy and spirit, comes a shift in thinking that is required if we want to deal effectively with the complex physical, emotional, mental and spiritual health concerns of our times.

I was very excited when several years ago my former professional association, the Bowen Therapists Federation of Australia (BTFA), saw my training in Dr Mikio Sankey's Advanced Energy Healing - Esoteric Acupuncture as potentially helpful to Bowen treatment and approved it as continued professional education activity.

Originally developed for acupuncturists under the name 'Esoteric Acupuncture' (EA) and then extended to non-acupuncturists like me as 'Advanced Energy Healing' (AEH), AEH – EA is a gateway approach to facilitate expanded healing. AEH – EA's philosophy sees an imbalanced 'Heart Space' as underlying the complex health and wellbeing issues we are facing at this point in time and therefore aims at 'switching on the light' of enhanced awareness through:

- rebalancing the body's energetic systems
- strengthening our energetic centre, the various levels of the Heart,
- · strengthening inner guidance, and
- helping us 'live a life that is more fully attuned to the changing energy shifts of the New Millennium' (Dr Mikio Sankey)

An energy modality anchored in the quantum model of reality (concept of resonance) that seeks to reboot, rebalance, realign and enhance the body's energetic systems through multi-meridian geometric acupoint patterns, AEH – EA aims at strengthening and evolving our inner spiritual Heart Centre by creating dynamic balance between our opposing core emotions of Love (Heart – element of Fire) and Fear (Kidney – element of Water) on all levels of existence, from the very densest physical to the finest universal. In more down-to-earth terms, it is all about helping me become ME and you become YOU.

Although this is not a 'fix-my-shoulder' modality, my experience shows that physical symptoms do benefit as the energetics re-harmonise. I am also finding that, while from my perspective Bowen work does have an impact on the body's energy systems through communicating with trigger and acupoints, it is AEH – EA that 'takes it home' when it comes to unblocking stagnant life force, a key to healing from the inside out.



Photo image developed and reproduced with the kind permission of Alison Clarke-Daly, intofreedom.com.au, Australian Advanced Energy Healing – Esoteric Acupuncture workshop presenter authorised by Dr Mikio Sankey, LAc.

While one single acupoint pattern may be sufficient to re-establish life force flow through the body's chakras and life force systems, the body is likely to need 'unfoldment boosts' (signal reinforcements) at stages to hold and expand upon an energetic realignment in accordance with challenges presented by an individual's life journey and how they deal with them.

While AEH – EA is embraced by some medical professionals, the story below of Allie (name changed), can, in the absence of official evidence-based research, only serve as anecdotal evidence as every person and every body is different.

No doubt Allie is a success story. A busy business woman in her 40s, Allie had struggled for over a decade with a barrage of personal and professional challenges that left her in an emotional fog, a near-permanent energetic low as well as physically exhausted and battling with a variety of symptoms, with chronic lower back issues first and foremost among them.

Allie's multi-modality self-help strategy led her to the realisation that she only ever achieved temporary and short-term relief, whereas she was aiming at getting to the root of things as she felt there had to be an underlying emotional cause. After Bowen therapy had been suggested to her, Allie came to see me with her life force stuck between chakras three and two, affecting her energetic kidney and adrenal landscape, overall energy levels and lower back in general. She also had trouble grounding and being present.

One single session dissolved the stagnation and helped boost her kidney energy and her understanding of underlying fear issues, so that not much later we began to use patterns to strengthen her energetic Heart Centre. Allie took to AEH - EA like a fish to water and, with continuing 'on-demand' treatment to prepare her for the resolution of at least some of her challenges a few weeks later, was able when the time came to keep her energy up in the face of major personal

challenges. She also reported holding her ground much better and dealing with her circumstances without falling apart or back into old defence mechanisms. Allie could not help but noticing much improved and generally stable energy, mental clarity, being better organised and feeling as emotionally strong and physically flexible than ever before.

Allie is continuing with fairly regular treatments as she sees them as a key to both prevention and maintenance, as well as to self-exploration and discovering her spiritual potential. Gaining in strength and awareness, she is thrilled at her transformation into a confident, successful and radiant woman.

For those who gel with the approach, it has the potential to be an avenue to healing and unfoldment from the inside out. Clients tend to look noticeably

different after treatment and have described their immediate sensations as 'I feel three metres tall', 'I feel free' or even 'You have given me back my energy' and 'I feel I have discovered my self and wonder who I was before'. Most comment down the track that the experience of AEH – EA is changing their life for the better.

For me as a practitioner it is an absolute joy to observe this kind of unfoldment. I feel humbled at having been given a tool with so much potential to help people into their Heart Space where the journey of healing and discovery always begins.

Christine Gruettke specialises in Bowen Therapy and TMJ Reset, Clinical / Professional Reflexology, Advanced Energy Healing (Mikio Sankey PhD, LAc) and is an Animal Communicator and Reiki/Seichem Master.



# Is it time for a review of allied health curricula?

Nutrition training in Osteopathy

Samantha Lo Giudice | BCISc, MOstMed

**Sandra Grace** | PhD, MSc, DC, DO

#### Introduction

Nutritional advice and recommendations for patients are increasingly important because of the rise in chronic lifestyle-related diseases. There is also an increasing number of people who want to be more actively involved in their health care and who are taking a closer look at complementary medicine for advice. This shift from a disease management approach to a disease prevention and early support one has particular relevance for lifestyle-related diseases like type 2 diabetes and some cardiovascular diseases.

The link between good health and nutrition is well recognised.1,9 A good diet and proper nutrition have the capacity to improve immunity and vitality and restore and maintain homeostasis.10 On the other hand a poor diet and malnutrition can impede development, decrease immunity and generate disease and somatic dysfunction.11-13 Several authors suggest that screening and management for nutritional deficiencies should be a multidisciplinary responsibility.<sup>14, 15</sup> For such a shared responsibility to occur, all primary health care professionals would need the skills to conduct nutritional screening, or at least to consider their patients' nutrition when diagnosing and treating them.8

A survey of 81 Canadian chiropractors found that 99% of respondents gave recommendations on supplements and

100% gave their patients nutritional advice.16 Survey respondents estimated that they used nutritional support for the following reasons: general health and wellness; bone health; rheumatological, arthritic, degenerative or inflammatory conditions and musculoskeletal conditions. Palacios et al10 investigated dentists' use of nutritional support for patients to improve and maintain dental and systemic health. The authors concluded that lifestyle recommendations can and should be given to patients by dentists to help improve systemic health. However, it appears that many health professionals may be inadequately trained in providing nutritional advice.7 A study comparing nutrition knowledge among health professionals, patients with eating disorders and the general population found that non-dietitian health professionals had similar levels of knowledge to people with eating disorders.17

Naturopaths, nutritionists and dietitians receive comprehensive training in nutritional assessment and treatment. However, all health practitioners have opportunities in their consultations to provide lifestyle advice, including advice about nutrition. The adequacy of nutrition training for health practitioners other than naturopaths, nutritionists and dietitians to equip them with the skills required to perform basic nutrition screening and advice is largely unknown. One survey of medical

students in the US found that the total nutrition component of their training was 23.9 hours.<sup>5</sup> It is likely that nutrition training for general medical and allied health practitioners in Australia is similar. Many professional-entry health courses in Australian have no units/ subjects devoted to nutrition.<sup>18-22</sup>

One of the goals of osteopathy, an allied health discipline in Australia, <sup>23</sup> is to educate patients about achieving optimal health, <sup>5</sup> which may involve good diet and nutrition, physical activity, managing stress levels, medications, and use of alcohol, tobacco and other substances. <sup>24</sup> The aim of this pilot study was to explore the feasibility of a large-scale review of osteopathy and other allied health curricula to identify their nutritional and lifestyle medicine components and to suggest curricular development where required.

#### Methodology

This exploratory mixed methods study was conducted in two parts: (1) a pilot survey of osteopathic practitioners and students, and (2) a curriculum comparison of osteopathic professional entry programs in Australia.

#### (1) Pilot survey of osteopathic practitioners and students

An invitation to participate in the research was distributed via email to practitioner and student members of the Australian Osteopathic Association.

Survey questions were designed to elicit information from practising osteopaths and students about their use of nutritional support in their practices. Results were used to inform the second phase of the research: to identify respondent' perspectives on the role of nutritional support in osteopathic practice and the adequacy of the nutrition component of their osteopathic training.

#### (2) Curriculum review

Documents for the curriculum review were located by navigating the websites of the three universities in Australia that offer a degree in osteopathy. <sup>25-27</sup> Detailed course structures were searched for units/subjects where nutrition was included in the title or description of the unit/subject. Learning outcomes of those units/subjects were reviewed to identify the volume and scope of learning available to students.

Results of both phases of the research were used to inform the feasibility of

a larger study to identify the current nutrition component of other allied health programs in Australia. Approval for the research was acquired by the Southern Cross University Human Research Ethics Committee (Approval no. ECN-12-279).

#### Results Pilot survey

Twenty-eight members of the Australian Osteopathic Association responded to the pilot survey. Eighty-six percent of respondents believed that nutritional support was an important part of osteopathic treatment and 82% used it in practice. Nutritional support was used to treat the following conditions: arthritis (95%), ligament sprain/ muscle strain (73%), gastrointestinal dysfunction (82%), bone healing (64%), psychological disturbance (36%), autoimmune disease (50%) and weight gain/loss (68%). For 90% of respondents, dietary advice was part of the nutritional support they used in their practices and 74% prescribed nutritional supplements.

Sixty-one percent of respondents referred their patients to another health care practitioner for nutritional support.

Lack of training in nutrition and in efficient search methods for locating useful and high quality nutritional information was reported as the greatest challenge to including nutritional support in osteopathic practice (37%). Other reported challenges were lack of patient compliance (45%) and time constraints (18%).

Further training in nutrition was the most frequently reported (28%) way to facilitate the use of nutritional support in osteopathic practice (see Figure 1).

#### **Curriculum review**

Programs in all three universities (Institutions A, B and C) were of five years duration, each year comprising two semesters. Students were required to study four units/subjects per semester (i.e., 40 units/subjects in the whole program). For Institutions A and B, one

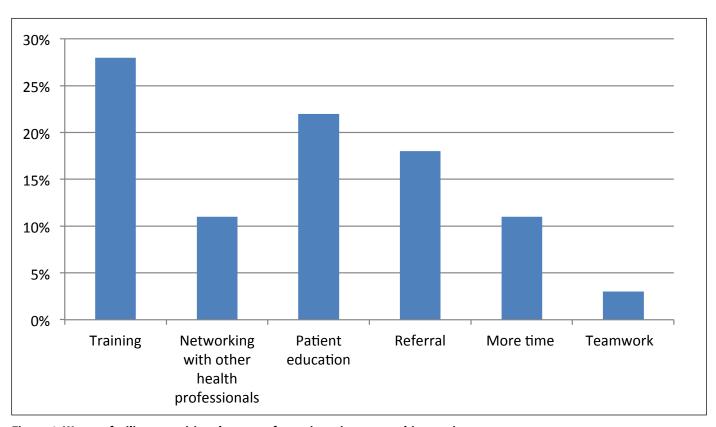


Figure 1: Ways to facilitate nutritional support for patients in osteopathic practice

#### EXCELLENCE IN STUDENT RESEARCH



nutrition unit/subject each was located. No nutrition unit/subject was located for Institution C. Institution A offered its nutrition course in the first year of the program whereas Institution B offered its nutrition unit/subject in the fifth year. Learning outcomes in Institution B's nutrition unit/subject demonstrated a clinically oriented approach (Table 1), whereas the unit/subject offered at Institution A was foundational and appropriate for delivery in the first year of the five-year program (see Table 1).

#### Discussion

This preliminary study is timely because of the rise in chronic lifestyle-related diseases and the potential role that all health care practitioners can play in their treatment and management with nutritional support. The intention of the pilot survey was exploratory and results must be treated with caution. However, results suggest that nutritional support may be an important part of osteopathic practice, particularly to enhance treatment outcomes.

The curriculum review of the three Australian universities located only one unit in each of two five-year osteopathic programs. It is likely that nutritional support for patients is discussed informally in other parts of the curriculum, particularly in problembased learning and in clinical training. However, the lack of formal training, indicated by named units/subjects in the programs, suggests that a review of curriculum may be required so as to adequately prepare osteopaths for management of patients with chronic lifestyle-related diseases. Furthermore, survey respondents reported lack of training in nutritional support for their patients and inadequate skills to efficiently locate high quality nutritional information as the greatest challenge to implementing nutritional support in practice.

The extent to which health care practitioners other than naturopaths, nutritonists and dietitians should be trained to practise another discipline

raises questions about professional boundaries and scopes of practice that need to be negotiated. It may be that a basic level of nutritional screening could be carried out safely by many health care practitioners to provide basic nutritional and lifestyle advice and to identify when patients needed referral for specialised nutritional care. Competencies for such training would need to be agreed on by representatives from all primary health practitioners.

Findings of the study suggest that a comprehensive audit of osteopathic and other allied health curricula may be in order to ensure that health care practitioners enter practice with skills to conduct nutritional screening and to provide nutritional support to their patients.

#### Conclusion

The results of the pilot survey suggested that nutritional support may be a valuable part of osteopathic practice, particularly in the treatment

Institution	Α	A	c
Unit name	Food & Nutrition in Health	Nutrition in Primary Care	_
Unit duration	1 semester	1 semester	_
Course Duration (yrs)	5	5	5
Learning outcomes	<ul> <li>Discuss the concept of 'food as medicine' as it applies in folklore, traditional and contemporary practice.</li> <li>Appraise sources of nutrition information and their reliability (e.g. popular culture literature, medical texts, peer-reviewed journals, etc).</li> <li>Describe western ways of classifying food and the criteria used to distinguish the major food categories and their constituents.</li> <li>Demonstrate familiarity with the Australian nutrition standards of reference and food guidance systems and be able to discuss their application to the nutritional requirements of healthy adults.</li> <li>Demonstrate an understanding of, and skills in, some of the methods to obtain and interpret food intake data and be able to make recommendations to improve dietary intake.</li> <li>Demonstrate familiarity with current issues in food production.</li> <li>Discuss the relationship between food and the prevention of nutrition-related health problems in affluent western societies.</li> <li>Explain the role of food safety as it applies to food regulation, the prevention of food-mediated disease, food labelling legislation, and food additives.</li> </ul>	<ul> <li>Evaluate the role of nutrients in health and disease.</li> <li>Recognize and respond appropriately to patients with nutritional deficiencies and eating disorders.</li> <li>Explain the impact of nutritional status in specific clinical conditions relevant to the practising osteopath.</li> <li>Explain the nutrient composition of foods, and the assimilation of these nutrients into the body.</li> </ul>	

of arthritis, gastrointestinal dysfunction, muscle strains and ligament sprains. Lack of training in nutrition and in the skills to efficiently locate quality nutritional information were reported as the main barrier to the use of nutritional support in practice. This finding was supported by a review of three osteopathic curricula which found that only two out of three programs included one named nutrition unit/subject. The increasing demand for basic nutrition screening and treatment of chronic lifestyle-related diseases warrants a large-scale review of osteopathic and other allied health curricula to identify the volume and scope of the nutritional components of programs and to inform the development of further nutrition content that could be made available to students in professional entry health programs.

#### **RFFFRFNCFS**

- 1. Sallis JF, Patrick K, Frank E, Pratt M, Wechsler H, Galuska DA. Interventions in health care settings to promote healthful eating and physical activity in children and adolescents. Preventive Medicine. 2000;31(2):5112-520.
- Coulter ID, Willis EM. The rise and rise of complementary and alternative medicine: a sociological perspective.[see comment]. Medical Journal of Australia. 2004 Jun 7;180(11):587-9.
- 3. Xue C, Zhang A, Lin V, Da Costa C, Story D. Complementary and alternative medicine use in Australia: A national population-based survey. J Altern Complement Med. 2007;13(6):643-50.
- 4. Galantino M, Boothroyd C, Lucci S. Complementary and Alternative Medicine Interventions for the Orthopedic Patient: A Review of the Literature. Seminars in Integrative Medicine. 2003 June;1(2):65-79.
- Daghigh F, Vettori DJ, Harris J. Nutrition in medical education: history, current status, and resources. Topics in Clinical Nutrition. 2011;26(2):147.
- Penman S. Lifestyle Medicine in 2010. Journal of the Australasian College of Nutritional and Environmental Medicine. 2010;29(1):10.
- 7. Ettienne-Gittens R, Lisako E, McKyer J, Goodson P, Guidry J, Outley C. What about Health Educators? Nutrition Education for Allied Health Professionals: A Review of the Literature. American Journal of Health Education. 2012;43(5):288-309.
- **8.** Jamison JR. Science and Clinical Practice: The Dialectic in Developing a Clinical Nutrition Curriculum for Chiropractic Education: La Trobe University; 1991.
- Robison JI, Wolfe K, Edwards L. Holistic nutrition: nourishing the body, mind, and spirit. Complementary Health Practice Review. 2004;9(1):11-20.
- Palacios C, Joshipura K, Willett W. Nutrition and health: guidelines for dental practitioners. Oral Diseases. 2009;15(6):369-81.
- 11. Wolf AH. Osteopathy- A state of mind. American Academy of Osteopathy Yearbook. 1982-1983(1982-1983):95-9.
- **12.** Bryan J, Osendarp S, Hughes D, Calvaresi E, Baghurst K, Klinken JW. Nutrients for Cognitive Development in School-aged Children. Nutrition reviews. 2004;62(8):295-306.
- Campbell-McBride N. Gut and psychology syndrome. Journal of Orthomolecular Medicine. 2008;23(2):90.
- 14. Kennelly S, Kennedy NP, Rughoobur GF, Slattery CG, Sugrue S. An evaluation of a community dietetics intervention on the management of malnutrition for healthcare professionals S. Kennelly et al. Management of malnutrition in the community. Journal of Human Nutrition & Dietetics. 2010;23(6):567-74.

- **15.** Ball L, Hughes R, Leveritt M. Nutrition in general practice: role and workforce preparation expectations of medical educators. Australian Journal of Primary Health. 2010;16:304-10.
- **16.** Stuber K, Bruno P, Kristmanson K, Ali Z. Dietary supplement recommendations by Saskatchewan chiropractors: results of an online survey. Chiropractic & Manual Therapies. 2013;21(1):11.
- **17.** Ho ASL, Soh NL, Walter G, Touyz S. Comparison of nutrition knowledge among health professionals, patients with eating disorders and the general population. Nutrition & Dietetics. 2011;68(4):267-72.
- **18.** University of Queensland. Occupational Therapy. University of Queensland; 2013 [cited 2013 November 27]; Available from: http://www.uq.edu.au/study/program\_list.html?acad\_prog=2022.
- **19.** University of Sydney. Physiotherapy. University of Sydney; 2013 [cited 2013 November 27]; Available from: http://sydney.edu.au/handbooks/health\_sci/undergraduate/physiotherapy\_unit\_of\_study\_table.shtml.
- 20. University of Sydney. Occupational Therapy. University of Sydney; 2013 [cited 2013 November 27]; Available from: http://sydney.edu.au/ handbooks/health\_sci/undergraduate/occupational\_therapy\_unit\_of\_ study\_table.shtml.
- 21. University of Western Sydney. Bachelor of Helath Science, Master of Physiotherapy. University of Western Sydney; 2013 [cited 2013 November 27]; Available from: http://future.uws.edu.au/future\_students\_home/ug/ science\_and\_health/physiotherapy/admission\_and\_unit\_information\_-\_ bachelor\_of\_health\_science\_master\_of\_physiotherapy.
- 22. University of Queensland. Bachelor of Medicine, Bachelor of Surgery. University of Queensland; 2013 [cited 2013 November 27]; Available from: http://www.uq.edu.au/study/program\_list.html?acad\_prog=2046.
- 23. Foster MM, Mitchell G, Haines T, Tweedy S, Cornwell P, Fleming J. Does Enhanced Primary Care enhance primary care? Policy-induced dilemmas for allied health professionals. Medical Journal of Australia. 2008;188(1):29.
- 24. Hasler CM. Functional foods: their role in disease prevention and health promotion. FOOD TECHNOLOGY-CHAMPAIGN THEN CHICAGO-. 1998:52:63-147.
- 25. Southern Cross University. Bachelor of Clinical Sciences. Lismore: SCU; 2013 [cited 2013 October 6]; Available from: http://scu.edu.au/coursesin201 4/?action=matrix&command=matrix\_temp\_load&spk\_no=301766.
- 26. Royal Melbourne Institute of Technology. Bachelor of Health Sciences/
  Bachelor of Applied Science (Osteopathy). Melbourne: RMIT; 2013 [cited 2013 October 6]; Available from: http://www.rmit.edu.au/browse;ID =EPSBP279HSDDAUSBU;STATUS=A?QRY=%2Btype%3Dflexible%20 %2Bsubtype%3Deps%20%2Bnotes%3D(%2B(osteopathy)%20%2B()%20 %2B())%20&STYPE=ENTIRE#req14780 000010084.
- 27. Victoria University. Bachelor of Science (Clinical Sciences) Course outline. 2012 [cited 2012 May 4]; Available from: http://www.vu.edu.au/courses/bachelor-of-science-clinical-sciences-hbop.



Negligence:
What you need to know
Part 2



#### Ingrid Pagura | BA, LLB

In the last issue of JATMS I covered the first two elements of negligence law: establishing a duty of care between client and therapist and the therapist's breaching that duty of care. In this second part I will finish reviewing this area of law, which is most important for all complementary medicine practitioners.

Having established that the defendant's (i.e., the therapist's) conduct did not reach the requisite standard of care, the plaintiff (i.e., the client) must now show that the defendant's negligent conduct led to the injury that the plaintiff has complained of. The test under common law was the 'But For' test, which proposes 'but for the defendant's negligence the plaintiff would have suffered no injury'. There must be a link between the defendant's behaviour and the plaintiff's injury. This is called causation and is usually proven by an expert.

If it is possible to show that the injury would have happened regardless of the defendant's actions, then the defendant may not be held liable. However, if the defendant has done something wrong, it may be hard to show that the injury would have happened regardless and that the defendant's negligence didn't in fact cause it.

#### Civil Liability Act 2002 (CLA) PART 1A — NEGLIGENCE

**DIVISION 3 — CAUSATION**5D General principles

- 3D General principles
- (1) A determination that negligence caused particular harm comprises the following elements:
- (a) that the negligence was a necessary condition of the occurrence of the harm (factual causation), and
- (b) that it is appropriate for the scope of the negligent person's liability to extend to the harm so caused (scope of liability).

This section is similar to the common law rule of causation in that the plaintiff must link the negligence to the harm caused.

Once it has been established that the defendant's negligent act caused the plaintiff's injury, the plaintiff still needs to show

that their injuries are of the kind for which the law allows compensation.

The test here is again foreseeability. Was the injury of the kind that was a reasonably foreseeable consequence of the defendant's conduct?

Compensation is referred to as damages and there are two types: special and general. Special damages are compensation for losses that can be precisely proven or calculated, for example, medical expenses, doctor's expenses, lost earnings, necessary renovations and ongoing rehabilitation. General damages are those that cannot be calculated precisely, such as losses in the future and pain and suffering.

Damages are calculated on a once and for all basis, which means that the court calculates what has already been spent and what will be spent in the future by the defendant. These damages are meant to last for the plaintiff's lifetime.

Further sections have been added to the CLA that will affect all complementary medicine practitioners. They are as follows:

#### Civil Liability Act 2002 PART 1A — NEGLIGENCE

#### DIVISION 6 — PROFESSIONAL NEGLIGENCE

50 Standard of care for professionals

- (1) A person practising a profession (a professional) does not incur a liability in negligence arising from the provision of a professional service if it is established that the professional acted in a manner that (at the time the service was provided) was widely accepted in Australia by peer professional opinion as competent professional practice.
- (2) However, peer professional opinion cannot be relied on for the purposes of this section if the court considers that the opinion is irrational.
- (3) The fact that there are differing peer professional opinions widely accepted in Australia concerning a matter does not prevent any one or more (or all) of those opinions being relied on for the purposes of this section.

(4) Peer professional opinion does not have to be universally accepted to be considered widely accepted.

This section diverges from the common law position. A professional can now be judged on the standard of their behaviour by referring to their peers. If they behaved in a way that their peers would have, then this makes the behaviour acceptable. This section refers only to their peers in Australia. There can be different ways that are acceptable, but more than one person must accept this as standard practice in their industry. For example, massage therapy or naturopathic guidelines and protocols have been written by experts to guide clients' treatments. Practitioners must follow these guidelines and protocols as they have been established by their colleagues. These guidelines and protocols will stand as peer professional opinion and will be the basis for deciding whether their actions have been acceptable. All practitioners must keep up to date with them, as well as with all current contraindications.

#### 5P Division does not apply to duty to warn of risk

This Division does not apply to liability arising in connection with the giving of (or the failure to give) a warning, advice or other information about the risk of death or injury to a person associated with the provision by a professional of a professional service. Professionals have a duty to warn of material risks, and nothing in the CLA overrides that. So remember a risk is a material risk if in the circumstances of the particular case a reasonable person in the patient's position, if warned of the risk, would be likely to attach significance to it, or if the doctor is, or should be, reasonably aware that the particular patient, if warned of the risk, would be likely to attach significance to it. You must warn clients of these risks.

#### DIVISION 8 — CONTRIBUTORY NEGLIGENCE

#### 58 Contributory negligence can defeat claim

In determining the extent of a reduction in damages by reason of contributory negligence, a court may determine a reduction of 100% if the court thinks it just and equitable to do so, with the result that the claim for damages is defeated. This section relates to where a plaintiff contributed to their own negligence. For example, if a person gets into a car with a drunk driver and then gets hurt, the court will find that they have contributed to their own injuries by getting into the car, and will reduce their damages. If a client lies about a condition or medication they are taking and is harmed as a result, they may be held responsible for their own harm.

#### DIVISION 4 — ASSUMPTION OF RISK

#### 5F Meaning of 'obvious risk'.

- (1) For the purposes of this Division, an obvious risk to a person who suffers harm is a risk that, in the circumstances, would have been obvious to a reasonable person in the position of that person.
- (2) Obvious risks include risks that are patent or matters of common knowledge.

- (3) A risk of something occurring can be an obvious risk even though it has a low probability of occurring.
- (4) A risk can be an obvious risk even if the risk (or a condition or circumstance that gives rise to the risk) is not prominent, conspicuous or physically observable.

An example of an obvious risk would be that if you jump out of a fourth floor window you will be likely to break a leg. In sport/ fitness an obvious risk might be that if you exercise outdoors in the sun you might get sunburnt.

#### 5G Injured persons presumed to be aware of obvious risks.

In determining liability for negligence, a person who suffers harm is presumed to have been aware of the risk of harm if it was an obvious risk, unless the person proves on the balance of probabilities that they were not aware of the risk.

#### 5H No proactive duty to warn of obvious risk

(1) A person (the defendant) does not owe a duty of care to another person (the plaintiff) to warn of an obvious risk to that person.





- (2) This section does not apply if
- (c) the defendant is a professional and the risk is a risk of the death of or personal injury to the plaintiff from the provision of a professional service by the defendant.

This section highlights the requirement of a professional to warn their clients of risks in a professional encounter. Where inherent risk is obvious in day-to-day settings it is presumed that people will recognise it for themselves. However where a risk, even if obvious, exists in a professional setting then the practitioner is obliged to warn the client of it.. For example, an obvious risk in a massage might be that it will hurt a little. Though this seems obvious massage therapists must still warn their clients that this risk exists. Likewise, sports and fitness trainers will need to tell their clients that they might puff as the exercise intensity increases, even though such a risk is obvious.

#### 5I No liability for materialisation of inherent risk

- (1) A person is not liable in negligence for harm suffered by another person as a result of the materialisation of an inherent risk.
- (2) An inherent risk is a risk of something occurring that cannot be avoided by the exercise of reasonable care and skill.

This section relates to things that can happen to a plaintiff regardless of how careful the defendant has been. Things can go wrong and the law acknowledges that.

#### PART 6 — INTOXICATION

#### 49 Effect of intoxication on duty and standard of care

- (1) The following principles apply in connection with the effect that a person's intoxication has on the duty and standard of care that the person is owed:
- (a) in determining whether a duty of care arises, it is not relevant to consider the possibility or likelihood that a person may be intoxicated or that a person who is intoxicated may be exposed to increased risk because the person's capacity to exercise reasonable care and skill is impaired as a result of being intoxicated,
- (b) a person is not owed a duty of care merely because the person is intoxicated,
- (c) the fact that a person is or may be intoxicated does not of itself increase or otherwise affect the standard of care owed to the person.

Intoxication, by alcohol or drugs, will usually mean that a person cannot recover damages. A defendant does not owe a greater duty of care just because a person is intoxicated. All clients are treated the same. Where the court decides that the injury may have occurred regardless of their intoxication it will

still reduce the damages, as a plaintiff who is intoxicated will be seen to be contributing to their own injuries.

Do not treat a client who is intoxicated or who you suspect to be intoxicated. A person who is intoxicated will not be able to consent to treatment as their mind is impaired. As a therapist you should never treat anyone if you are intoxicated as you will not be able to exercise reasonable care and skill, even if you feel that you are fit to perform treatment.

#### PART 8 — GOOD SAMARITANS

#### **57 Protection of Good Samaritans**

(1) A Good Samaritan does not incur any personal civil liability in respect of any act or omission done or made by the Good Samaritan in an emergency when assisting a person who is apparently injured or at risk of being injured.

This section protects people who assist others. A Good Samaritan is defined as a person who comes to the assistance of others without expectation of payment. First aiders fall into this category. This has been a very murky area of the law. People were often afraid to help someone in case they were sued if they somehow hurt them. Giving CPR, for example, can cause other injuries. People who render CPR are now protected from being sued by the people they helped.

#### 58 Exclusion from protection

- (1) The protection from personal liability conferred by this Part does not apply if it is the Good Samaritan's intentional or negligent act or omission that caused the injury or risk of injury in respect of which the Good Samaritan first comes to the assistance of the person.
- (2) The protection from personal liability conferred by this Part in respect of an act or omission does not apply if:
- (a) the ability of the Good Samaritan to exercise reasonable care and skill was significantly impaired by reason of the Good Samaritan being under the influence of alcohol or a drug voluntarily consumed (whether or not it was consumed for medication), and
- (b) the Good Samaritan failed to exercise reasonable care and skill in connection with the act or omission.

This section removes the protection of Good Samaritans if they caused the injury in the first place or if they have acted outside the scope of their expertise. For example, if I am trained in CPR, that is all I should be doing. I cannot pretend to be a doctor and perform a tracheotomy because I've seen it on TV and it looks easy enough. This section limits the protection set out in s 57.



# BOOK REVIEWS

#### **Happy Healthy Kids**

Reviewed by Stephen Clarke

lan White. Allen and Unwin. Sydney. 2009. ISBN 978-1-74175-663-0

Price. AUD 29.99

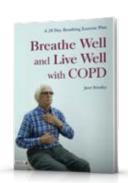
Available at www.allenandunwin.com/ search#searchword=ian%20white

The author is the founder of Australian Bush Flower Essences and has practised as one of Australia's leading naturopaths for thirty years. He gained much of his profound knowledge of the healing properties of native Australian flowers at an early age from walking through the bush with his grandmother, who, along with her own mother, was one of the first non-Indigenous Australians to make serious studies of the subject. His own wide experience and his passionate commitment to Bush Flower Essences are evident on every page of this book. Australian Bush Flower Essences are now used in more than forty countries, and much of the credit for this belongs with Ian White's scholarly championing.

The first chapter succinctly explains the energetic, emotional and spiritual bases of the efficacy of Bush Essences, with reference to the particular emotional and spiritual issues surrounding childhood. The following nine chapters embrace such a vast wealth of information on remedies for the physiological, emotional, mental and spiritual difficulties children and their parents encounter through the years from conception to starting school that it is not possible to do it justice by summary in the space available for this review. However, I feel that something should be said about Chapter Seven in particular, in which Ian focuses on the development of the spirits of children, and particularly of two cohorts of children: those born in the 1980's and 1990's, and those born since the turn of the present millennium. He is eloquently optimistic about the future of the planet, based on the fortunate numerology

presiding over the lives of these cohorts. Little Flannel Flower and Hibbertia are the essences Ian nominates as the supplements for the journey on which we must hope, and Ian believes, they will take the damaged planet they have inherited. Let's all get into our gardens and plant numerous rows of them.

But these are just two of the 69 individual essences and 20 combination essences dealt with in this book. As well as chapters that chronologically follow stages of child development from birth to starting school, there are chapters on common childhood infections and illnesses, choosing and using Bush Essences, what happens on starting school and an A to Z of conditions and treatments. Ian incorporates Pythagorean numerology into his naturopathic practice, and for sympathetic readers there is a chapter on knowing your child based on insights from this body of knowledge. Six years after its publication, Happy Healthy Kids remains the definitive source for practitioners and their patients wishing to use Australian Bush Flower Essences for their children.



# Breathe Well and Live Well with COPD

Reviewed by Stephen Clarke

Janet Brindley. Singing Dragon. London. 2014. ISBN 978-1-84819-164-8; eISBN 978-0-85701-132-9

Price. AUD 28.95

Available at www.footprint.com.au/productlisting.asp?scope=books&keywords=janet+br indley&x=40&y=14

More than 1 in 20 Australians aged 55 and over - or 310,700 people - have

chronic obstructive pulmonary disease (COPD). It is the fifth leading cause of death in the country. The Australian Institute of Health and Welfare maintains that management of COPD is mainly focused on preventing further deterioration and maintaining lung function and quality of life, and conventional medical management of COPD consists of pharmaceutical bronchodilators and oxygen therapy. A book that sets out a program of breathing exercises that COPD sufferers can undertake at home, and that has demonstrated symptom reduction and subjective improvement in quality of life through both case studies and scientific trials, is welcome indeed. While the author is careful to point out that this program is not intended for patients with severe COPD, nor as a substitute for medication, it is nevertheless an important complementary approach to the management of most cases of the condition.

Breathing exercises, including the widely practised pranayama yoga, have been used for millennia to improve health. This book sets out a carefully graduated 28 day breathing exercise program that integrates such traditional disciplines with the system developed by the Ukrainian Dr Konstantin Buteyko. The program is broken down into two 14 day periods and prescribes practical exercises to learn good breathing practices and to reduce habits and symptoms associated with COPD: mouth-breathing, coughing, and tension in the diaphragm and muscles of the chest wall. There are techniques for overcoming shortness of breath, reducing the likelihood of chest infections, relaxing the breathing, controlling sensitivity to breathlessness and stretching exercises for better breathing. The illustrations are clear and instructive. There is a breathing diary for each 14 day period of the program. This book should be of considerable value to practitioners with patients experiencing all but the severest degrees of COPD.

# Paracetamol is not effective for treating lower back

**Sandra Grace** | PhD, MSc, DC, DO

The Australian Bureau of Statistics 2011-2012 National Health Survey found that about 3 million Australians (13.6% of the population) have back problems and estimated that 70-90% of people will suffer from lower back pain in some form at some point in their lives. Many Australians use paracetamol to manage their back pain. However, they are nearly four times more likely to have abnormal results on liver function tests than those who do not.

The Paracetamol for Low-Back Pain Study (PACE) was conducted by researchers of the George Institute and reported in the Lancet in February 2015. The PACE study involved 1652 people (mean age of 45 years) with acute low-back pain from 235 primary care centres in Sydney. Participants were randomly assigned to receive up to 4 weeks of paracetamol three times a day (3990 mg/day), paracetamol as needed (maximum 4000 mg/day), or placebo. Follow-up continued for 3 months during which time all participants received advice and reassurance.

The researchers found no differences in the number of days to recovery between the treatment groups. The median time to recovery was 17 days in the regular paracetamol group, 17 days in the as-needed paracetamol group, and 16 days in the placebo group. Pain and disability scores were converted to a scale of 0 (no pain or disability) to 100 (worst possible pain or disability). The authors found that paracetamol had no effect on short-term pain levels, disability, function, sleep quality, or quality of life. The authors concluded that paracetamol is ineffective in the treatment of low back pain, although it does provide minimal short term benefit for people with osteoarthritis.

This study has important implications for practitioners managing their patients' back conditions. Paracetamol is not formulated to reduce inflammation, the basis of many conditions that cause back pain. If patients want a pharmaceutical treatment for back pain a course of COX-2 inhibitors may be more effective for treating inflammatory conditions. COX-2 inhibitors are prescription-only medications. Evidence-based natural medicine solutions

include natural comfrey root extract,<sup>3</sup> Devil's claw, white willow bark, cayenne and lavender oil applied with acupressure.<sup>4</sup> Clinical guidelines for acute low back pain recommend:

- Giving adequate information and reassure the patient
- Not prescribing bed rest as a treatment
- Advising patients to stay active and continue normal daily activities including work if possible
- Considering referral for spinal manipulation for patients who are failing to return to normal activities
- Multidisciplinary treatment programs in occupational settings may be an option for workers with sub-acute low back pain and sick leave for more than 4 - 8 weeks<sup>5</sup>

#### REFERENCES

- Australian Bureau of Statistics. 2011-2012 National Health Survey.
   Available from: http://www.abs.gov.au/AUSSTATS/abs@.nsf/Lookup/433
   8.0main+features12011-13
- 2 Christopher M Williams, Christopher G Maher, Jane Latimer, Andrew J McLachlan, Mark J Hancock, Richard O Day, Chung-Wei Christine Lin. Efficacy of paracetamol for acute low-back pain: a double-blind, randomised controlled trial. The Lancet, 2014; DOI: 10.1016/S0140-6736(14)60805-9
- 3 Grube, B., Grunwald, J., Krug, L. & Staiger, C. Efficacy of a comfrey root (Symphyti office. Radix) extract ointment in the treatment of patients with painful osteoarthritis of the knee: Results of a double-blind, randomised, bicenter, placebo-controlled trial. Phytomedicine, 2007;14:2-10
- 4 Oltean H, Robbins C, van Tulder MW, Berman BM, Bombardier C, Gagnier JJ. Herbal medicine for low-back pain. Cochrane Database of Systematic Reviews 2014, Issue 12. Art. No.: CD004504. DOI: 10.1002/14651858. CD004504.pub4.
- 5 van Tulder M, Becker A, Bekkering T, Breen A et al. European Guidelines for the Management of Acute Low Back Pain in Primary Care. Available from: http://www.backpaineurope.org/web/files/WG1\_Guidelines.pdf



#### What modality(ies) do you practice?

Remedial Massage, Chinese Traditional cupping, Reiki, Dry Needling, Myofascial release, Remedial/Relaxation Hot Rocks, Rock taping, pregnancy massage.

#### How long have you been in practice?

Started studying in 1989 but found out I was pregnant with my first child so sadly had to defer my studies. I competed my course in 1994. I started full time massaging in 1999 when I received redundancy from the State Rail Authority. Prior to that I was massaging of an evening and weekend to establish my business.

#### Major influences on your career?

When I was 8 years old my mother had a car accident. She had what they classified as a "double whiplash" and has suffered from back/neck issues since. Wanting to help her in any way I could, I did a community education course in 'massage for home use', which piqued my interest in massage. My family have always influenced me to further my dreams and without their support I would not be where I am today.

## What do you most like about being a natural medicine practitioner?

Being able to assist people by using nothing but what comes naturally ie using nothing but your hands and your heart (and a few extra tools) is a very special gift. Helping people when they need assistance and seeing the relief on their faces, in their bodies and how much they appreciate it, is very rewarding.

I love the comradery that occurs between most therapists. We also need to co-operate and work with each other, not segregate a therapist because they do a different modality than yourself Referring to each other where there is no progress in the healing of a client, is necessary.

Being able to work from home is an extra bonus.

# PRACTITIONER PROFILE

## What advice would you give to a new practitioner starting out?

I would advise them to study hard and be 'yourself'. Don't try to be something you aren't, work within your abilities and never be afraid to refer your client on if you feel you are out of your depth. You will receive more respect for that.

#### What are your future ambitions?

As I work in a small rural town, my ambitions are simple, to continue to help others for as long as I can. Also to continue developing my skills by pushing for and attending educational development workshops in regional areas where possible.

## Other thoughts: Government policies?

We need to have government intervention in our industry to ensure the safety of ourselves and our clients, but to what extent is the question. The active role our association is taking part in is a necessity to keep an eye on procedures and outcomes.

My only fear is that the 'personal care' side of our industry may be affected by being over-governed. We need to ensure we don't lose our identity and our roots.

## Status and/or role of natural medicine in the broad context of Australian health care?

Natural therapy practitioners, medical doctors, physiotherapists etc. can and should work hand in hand with each other. Gone are the days where medical practitioners (GPs) are seen as 'gods'. We should be communicating with each other for the welfare/benefit of our clients.

Being from a small town, all the GPs know of me and how I work, and have no problem with referring their patients to me where necessary. But on the other hand, if a client comes in with a complaint that I feel is not within my spectrum or needs further investigation I have no hesitation in referring to the GP.

Natural therapies have become more accepted in the past 20 or so years, we DO have a role to play in the health of our population. We are not above or below any other medical practitioner, we are an adjunct.

Respect all forms of healing and the people practising, but identify your own limitations.

With our educational standards getting higher and higher, and more and more modalities to choose from for our upcoming practioners, we need to have everyone working on the same page. We need to remember our roots and who/what we are working for. We are all therapists with knowledge to share and receive.



#### **Acupuncture and TCM**

Kainuma M, Furusyo N, Urita Y, Nagata M, Ihara T, Oji T, Nakaguchi T, Namiki T, Hayashi J.

The association between objective tongue color and endoscopic findings: results from the Kyushu and Okinawa population study (KOPS). BMC Complementary and Alternative Medicine 2015, 15:372 doi:10.1186/s12906-015-0904-0

**Background:** The relation between tongue color and gastroesophageal disease is unclear. This study was done to investigate the associations between tongue color (TC), endoscopic findings, Helicobacter.pylori infection status, and serological atrophic gastritis (SAG).

Methods: The participants were 896 residents of Ishigaki Island, Okinawa, aged 28–86 years. The tongue was photographed, esophagogastroduodenoscopy was done, and serum antibody to H.pylori was measured. SAG was defined as a serum Pepsinogen (PG)Ilevel ≤70 ng/ml and a PGI/IIratio ≤3.0. TC was measured by the device-independent international commission on Illumination 1976 L\*a\*b\* color space standards at four points: (1) edge, (2) posterior, (3) middle, and (4) apex. We also calculated the ratio of the tongue edge to the three other measured points to examine the association between the coating of the tongue and the endoscopic and laboratory findings.

Results: Participants were excluded who had two or more endoscopic findings (n = 315) or who had SAG without seropositivity to H.pylori (n = 33). The remaining 548 participants were divided into three groups: SAG and seropositive to H.pylori (n=67), seropositive to H.pylori alone (n = 56), and without SAG and seronegative for H.pylori (n = 425). We divided 425 residents into a single endoscopic finding positive group (n = 207) and a negative group, which served as a control (n=218). The most frequent single endoscopic finding was esophageal hernia (n = 110), followed by erosive esophagitis (n = 35) and erosive gastritis (EG) (n = 45). EH was significantly associated with TC  $(2b^*/1b^*)$  (P<0.05). EG was significantly associated with TC (3a\*, 3b\*) (P<0.05). Seropositivity to H.pylori was significantly associated with TC  $(3 L^*, 3 L^*/1 L^*)$  (P<0.05, <0.01), and seropositivity to both H.pylori and SAG was significantly associated with TC (3 L\*/1 L\*) (P<0.05). Multivariate analysis extracted TC (3a\*, 3b\*) as an independent factor associated with a differential diagnosis of EG (Odds ratio (OR) 2.66 P=0.008, OR 2.17 P=0.045).

**Conclusions:** The tongue body color of the middle area reflects acute change of gastric mucosa, such as erosive gastritis. Tongue diagnosis would be a useful, non-invasive screening tool for EG.

Zhu B, Wang Y, Zhang G, Ouyang H, Zhang J, Zheng Y, Zhang S, Wu C, Qu S, Chen J, Huang Y, Tang C.

Acupuncture at KI3 in healthy volunteers induces specific cortical functional activity: an fMRI study. BMC Complementary and Alternative Medicine 2015, 15:361 doi:10.1186/s12906-015-0881-3

**Background:** Using functional magnetic resonance imaging (fMRI), we determined brain regions that were activated/ deactivated more by acupuncture at Taixi (KI3) than by non-acupoint or sham acupuncture.

Methods: A total of 30 healthy volunteers were randomly divided into a KI3 group (15 subjects) and non-acupoint group (15 subjects). Subjects in KI3 group received a sham acupuncture and then a real acupuncture, fMRI was performed before and after sham acupuncture as well as after ture acupuncture. Subjects in non-acupoint group received a true acupuncture and the fMRI was performed before and after true acupuncture. The fMRI data obtained were successively analyzed using DPARSF2.3 and REST1.8 software, yielding regional homogeneity (ReHo) and amplitude of low frequency fluctuations (ALFF) values.

Results: Compared with sham acupuncture, ALFF values were higher in Brodmann area (BA) 10 and lower in BA7 and BA18. ReHo values after real acupuncture at KI3 were higher in the right sub-lobar region and BA10 and were lower in BA31. Compared with the changes before and after real acupuncture at non-acupoint, the changes at KI3 showed higher ALFF valued in the left cerebellum posterior lobe, BA10, BA39, BA31 and decreased ALFF was observed in the BA18, BA19 and BA40; and higher ReHo values were shown in left cerebellum posterior lobe pyramis, left cerebellum anterior lobe. BA37, BA10, BA39, BA31 and lower ReHo values were shown in BA18 and BA31.

Conclusion: Acupuncture at KI3 has a specific effect on certain brain regions associated with perception, body movement, spirit, and association. Additionally, visual and auditory cortices were affected, which may be related to the clinical applications of KI3 acupuncture in auditory and cognitive disorders, hypomnesis, loss of concentration, and the loss of ability to work and learn.

#### **Complementary and Alternative Medicine**

Upchurch DM, Rainisch BW.

The importance of wellness among users of complementary and alternative medicine: findings from the 2007 National Health Interview Survey. BMC Complementary and Alternative Medicine 2015, 15:362 doi:10.1186/s12906-015-0886-y

**Background:** This study developed and tested a

sociobehavioral wellness model of complementary and alternative medicine (CAM) to differentiate predisposing factors, enabling resources, need, and personal health practices according to use for wellness, for combined wellness and treatment, or for treatment alone.

**Methods:** Data were from the 2007 National Health Interview Survey (NHIS), a cross-sectional, nationally representative sample of 23,393 adult Americans. This analysis included people who used at least one CAM modality in the past 12 months (n = 7003 adult users). Prevalence estimates and multinomial logistic regression results were weighted and adjusted for complex sample design.

Results: Overall, 86 % of CAM users reported reason for use as wellness (51 %) or wellness combined with treatment (35 %). White women had the lowest (48 %) and Asian men (66 %) had the highest wellness use. Compared to treatment only users, wellness users were significantly more likely to be older, more educated, in better health, and engaged in multiple healthy behaviors. There was support that those with health conditions were using methods for both treatment and to maintain health.

**Conclusions:** The findings underscore the central role of CAM in health self-management and wellness lifestyle. At a time of national health care reform highlighting the importance of health and wellness and employers turning to wellness programs to improve worker performance and well-being, these findings suggest a central role of CAM in those public health endeavors.

#### **Herbal Medicine**

Batista LM, De Morais Lima GR, De Almeida ABA et al.

Ulcer healing and mechanism(s) of action involved in the gastroprotective activity of fractions obtained from Syngonanthus arthrotrichus and Syngonanthus bisulcatu. BMC Complementary and Alternative Medicine 2015, 15:391 doi:10.1186/s12906-015-0923-x

**Background:** Syngonanthus arthrotrichus and Syngonanthus bisulcatus, currently known for Comanthera aciphylla (Bong.) L.R.Parra & Giul. and Comanthera bisulcata (Koern.) L.R. Parra & Giul, popularly known in Brazil as "sempre-vivas," are plants from the family Eriocaulaceae. They are found in the states of Minas Gerais and Bahia. The species are known to be rich in flavonoids to which their gastroprotective activity has been attributed. In this research, experimental protocols were performed to elucidate the associated mechanisms of action.

**Methods:** The activity was evaluated using induced gastric ulcer models (acetic acid and ethanol-induced gastric lesions in NEM or L-NAME pre-treated mice, and by ischemia/reperfusion). Antioxidant enzymes, serum somatostatin, and gastrin were also evaluated.

**Results:** In chronic gastric ulcers, a single daily oral dose of Sa-FRF or Sb-FRF (100 mg/kg body wt.) for 14 consecutive days accelerated ulcer healing to an extent similar to that seen with an equal dose of cimetidine. The pre-treatment of mice with NEM (N-ethylmaleimide) or L-NAME (N-nitro-L-arginine) abolished the protective activity of Sa-FRF, Sa-FDF, Sb-FDF and Sb-FRF or Sa-FRF and Sb-FRF, respectively, which indicates that antioxidant compounds and nitric oxide synthase activity are involved in the gastroprotective. Sa-FRF and Sb-FRF (100 mg/ kg p.o) protected the gastric mucosa against ulceration that was induced by ischemia/reperfusion (72 and 76 %, respectively). It also decreased lipid peroxidation and restored total thiols in the gastric wall of mice that had been treated with ethanol. When administered to rats submitted to ethanol-induced gastric lesions, Sa-FRF and Sb-FRF (100 mg/kg, p.o.) increased the somatostatin serum levels, while the gastrin serum levels were proportionally decreased.

**Conclusions:** The results indicate significant healing effects and gastroprotective activity for the Sa-FRF and Sb-FRF, which probably involves the participation of SH groups, nitric oxide (NO), the antioxidant system, somatostatin, and gastrin. All are integral parts of the gastrointestinal mucosa's cytoprotective mechanisms against aggressive factors.

Justo OR, Simioni PU, Gabriel DL, Tamashiro WM, Rosa P, Moraes AM.

Evaluation of in vitro anti-inflammatory effects of crude ginger and rosemary extracts obtained through supercritical CO 2 extraction on macrophage and tumor cell line: the influence of vehicle type. BMC Complementary and Alternative Medicine 2015, 15:390 doi:10.1186/s12906-015-0896-9

**Background:** Numerous plants from have been investigated due to their anti-inflammatory activity and, among then, extracts or components of ginger (Zingiber officinale Roscoe) and rosemary (Rosmarinus officinalis L.), sources of polyphenolic compounds. 6-gingerol from ginger rhizome and carnosic acid and carnosol from rosemary leaves present anti-tumor, anti-inflammatory and antioxidant activities. However, the evaluation of the mechanisms of action of these and other plant extracts is limited due to their high hydrophobicity. Dimethylsulfoxide (DMSO) is commonly used as a vehicle of liposoluble materials to mammalian cells in vitro, presenting enhanced cell penetration. Liposomes are also able to efficiently deliver agents to mammalian cells, being capable to incorporate in their structure not only hydrophobic molecules, but also hydrophilic and amphiphilic compounds. Another strategy is based on the use of Pluronic F-68, a biocompatible low-foaming, non-ionic surfactant, to disperse hydrophobic components. Here, these three delivery approaches were compared to analyze their influence on the in vitro anti-inflammatory effects of ginger and rosemary extracts, at different concentrations, on primary mammalian cells and on a tumor cell line.



**Methods:** Ginger and rosemary extracts free of organic solvents were obtained by supercritical fluid extraction and dispersed in DMSO, Pluronic F-68 or liposomes, in variable concentrations. Cell viability, production of inflammatory mediators and nitric oxide (NO) release were measured in vitro on J774 cell line and murine macrophages primary culture stimulated with bacterial lipopolysaccharide and interferon-γ after being exposed or not to these extracts.

**Results:** Ginger and rosemary extracts obtained by supercritical CO 2 extraction inhibited the production of pro-inflammatory cytokines and the release of NO by peritoneal macrophages and J774 cells. The delivery vehicles influenced the anti-inflammatory effects. Comparatively, the ginger extract showed the highest anti-inflammatory activity on the tumor cell line. Controversially, rosemary extract dispersed on DMSO induced a more significant IL-1 and TNF- $\alpha$  reduction than ginger extract in primary macrophages.

Conclusions: Amongst the tested delivery vehicles, DMSO was the most suitable, presenting reduced cytotoxicity, followed by Pluronic F-68 and liposomes, provably due to differences in their form of absorption, distribution and cellular metabolism. Co-administration of liposomes and plant extracts may cause death of macrophages cells and induction of NO production. It can be concluded that some of the beneficial effects attributed to extracts of ginger and rosemary may be associated with the inhibition of inflammatory mediators due to their high antioxidant activity. However, these effects were influenced by the type of delivery vehicle.

#### Al-Abd NM, Nor ZM, Mansor M, Azhar F, Hasan MS, Kassim M.

Antioxidant, antibacterial activity, and phytochemical characterization of Melaleuca cajuputi extract. BMC Complementary and Alternative Medicine 2015, 15:385 doi:10.1186/s12906-015-0914-y

**Background:** The threat posed by drug-resistant pathogens has resulted in the increasing momentum in research and development for effective alternative medications. The antioxidant and antibacterial properties of phytochemical extracts makes them attractive alternative complementary medicines. Therefore, this study evaluated the phytochemical constituents of Melaleuca cajuputi flower and leaf (GF and GL, respectively) extracts and their antioxidant and antibacterial activities.

**Methods:** Radical scavenging capacity of the extracts was estimated using 2,2-diphenyl-2-picrylhydrazyl and Fe 2+ -chelating activity. Total antioxidant activity was determined using ferric reducing antioxidant power assay. Well diffusion, minimum inhibitory concentration, and minimum bactericidal concentration assays were used to determine antibacterial activity against eight pathogens, namely Staphylococcus aureus,

Escherichia coli, Bacillus cereus, Staphylococcus epidermidis, Salmonella typhimurium, Klebsiella pneumonia, Streptococcus pneumoniae, and Pasteurella multocida. We identified and quantified the phytochemical constituents in methanol extracts using liquid chromatography/mass spectrometry (LC/MS) and gas chromatography (GC)/MS.

Results: This study reports the antioxidant and radical scavenging activity of M. cajuputi methanolic extracts. The GF extract showed better efficacy than that of the GL extract. The total phenolic contents were higher in the flower extract than they were in the leaf extract  $(0.55\pm0.05 \text{ and } 0.37\pm0.05 \text{ gallic}$  acid equivalent per mg extract dry weight, respectively). As expected, the percentage radical inhibition by GF was higher than that by the GL extract (81 and 75 %, respectively). A similar trend was observed in Fe 2+ -chelating activity and  $\beta$ -carotene bleaching tests. The antibacterial assay of the extracts revealed no inhibition zones with the Gram-negative bacteria tested. However, the extracts demonstrated activity against B. cereus, S. aureus, and S. epidermidis.

Conclusions: In this study, we found that M. cajuputi extracts possess antioxidant and antibacterial activities. The results revealed that both extracts had significant antioxidant and free radical-scavenging activity. Both extracts had antibacterial activity against S. aureus, S. epidermidis, and B. cereus. The antioxidant and antimicrobial activities could be attributed to high flavonoid and phenolic contents identified using GC/MS and LC/MS. Therefore, M. cajuputi could be an excellent source for natural antioxidant and antibacterial agents for medical and nutraceutical applications

#### Wei X, Fang R, Yang Y, Bi X, Ren G, Luo A, Zhao M, Zang W.

Protective effects of extracts from Pomegranate peels and seeds on liver fibrosis induced by carbon tetrachloride in rats. BMC Complementary and Alternative Medicine 2015, 15:389 doi:10.1186/s12906-015-0916-9

Background: Liver fibrosis is a feature in the majority of chronic liver diseases and oxidative stress is considered to be its main pathogenic mechanism. Antioxidants including vitamin E, are effective in preventing liver fibrogenesis. Several plant-drived antioxidants, such as silymarin, baicalin, beicalein, quercetin, apigenin, were shown to interfere with liver fibrogenesis. The antioxidans above are polyphenols, flavonoids or structurally related compounds which are the main chemical components of Pomegranate peels and seeds, and the antioxidant activity of Pomegranate peels and seeds have been verified. Here we investigated whether the extracts of pomegranate peels (EPP) and seeds (EPS) have preventive efficacy on liver fibrosis induced by carbon tetrachloride (CCl 4) in rats and explored its possible mechanisms.

**Methods:** The animal model was established by injection with 50 % CCl 4 subcutaneously in male wistar rats twice a week for four weeks. Meanwhile, EPP and EPS were administered orally every day for 4 weeks, respectively. The protective effects of EPP and EPS on biochemical metabolic parameters, liver function, oxidative markers, activities of antioxidant enzymes and liver fibrosis were determined in CCl 4 -induced liver toxicity in rats.

**Results:** Compared with the sham group, the liver function was worse in CCl 4 group, manifested as increased levels of serum alanine aminotransferase, aspartate aminotransferase and total bilirubin. EPP and EPS treatment significantly ameliorated these effects of CCl 4 . EPP and EPS attenuated CCl 4 -induced increase in the levels of TGF- $\beta$ l, hydroxyproline, hyaluronic acid laminin and procollagen type III. They also restored the decreased superoxide dismutase (SOD), glutathione peroxidase (GSH-Px) activities and inhibited the formation of lipid peroxidized products in rats treated with CCl 4 .

**Conclusion:** The EPP and EPS have protective effects against liver fibrosis induced by CCl 4, and its mechanisms might be associated with their antioxidant activity, the ability of decreasing the level of TGF- $\beta$ 1 and inhibition of collagen synthesis.

#### Homoeopathy

Dufresne F, Simmons B, Vlachostergios PJ, Fleischner Z, Joudeh R, Blakeway J, Julliard K.

Feasibility of Energy Medicine in a Community Teaching Hospital: An Exploratory Case Series. The Journal of Alternative and Complementary Medicine. June 2015, 21(6): 339-349. doi:10.1089/acm.2014.0157.

**Background:** Energy medicine (EM) derives from the theory that a subtle biologic energy can be influenced for therapeutic effect. EM practitioners may be trained within a specific tradition or work solo. Few studies have investigated the feasibility of solo-practitioner EM in hospitals.

**Objective:** This study investigated the feasibility of EM as provided by a solo practitioner in inpatient and emergent settings.

**Design:** Feasibility study, including a prospective case series.

Settings: Inpatient units and emergency department.

**Outcome measures:** To investigate the feasibility of EM, acceptability, demand, implementation, and practicality were assessed. Short-term clinical changes were documented by treating physicians.

**Participants:** Patients, employees, and family members were enrolled in the study only if study physicians expected no or slow improvement in specific symptoms. Those with secondary gains or who could not communicate perception of symptom change were excluded.

Results: EM was found to have acceptability and demand, and implementation was smooth because study procedures dovetailed with conventional clinical practice. Practicality was acceptable within the study but was low upon further application of EM because of cost of program administration. Twenty-four of 32 patients requested relief from pain. Of 50 reports of pain, 5 (10%) showed no improvement; 4 (8%), slight improvement; 3 (6%), moderate improvement; and 38 (76%), marked improvement. Twenty-one patients had issues other than pain. Of 29 non-pain-related problems, 3 (10%) showed no, 2 (7%) showed slight, 1 (4%) showed moderate, and 23 (79%) showed marked improvement. Changes during EM sessions were usually immediate.

**Conclusions:** This study successfully implemented EM provided by a solo practitioner in inpatient and emergent hospital settings and found that acceptability and demand justified its presence. Most patients experienced marked, immediate improvement of symptoms associated with their chief complaint. Substantial practicality issues must be addressed to implement EM clinically in a hospital, however.

#### **Integrative Medicine**

#### ${\it Sundberg T, Hussain-Alkhateeb L, Falkenberg T.}$

Usage and cost of first-line drugs for patients referred to inpatient anthroposophic integrative care or inpatient conventional care for stress-related mental disorders—a register based study. BMC Complementary and Alternative Medicine 2015, 15:354 doi:10.1186/s12906-015-0865-3

**Background:** Stress-related mental disorders (SRMD) are common and costly. Rehabilitation strategies, including pharmacotherapy, may be complicated to evaluate. Previous research has indicated increased quality of life and self-rated health for SRMD patients that receive a combination of conventional and complementary therapies, i.e. integrative care. The aim of this retrospective registry study was to explore and contrast the prescription of first-line drugs for SRMD patients referred to hospital inpatient anthroposophic integrative care (AIC) or inpatient conventional care (CC).

**Methods:** SRMD patients that had received AIC or CC were identified through high-quality inpatient registry data from Stockholm County Council and matched by available background characteristics including diagnosis (ICD-10: F43), age, gender and socio-economics. General disease load was estimated



by analysis of ICD-10 chapter data. The Swedish Prescribed Drug Register was then used to investigate purchased defined daily doses (DDD) and cost of drugs from 90-days before/after, and 180-days before/after, the first visits (index) to AIC and CC respectively. First-line drug categories were Anatomical Therapeutic Chemical classification codes N05A (antipsychotics), N05B (anxiolytics), N05C (hypnotics and sedatives) and N06A (antidepressants).

**Results:** There were no statistically significant differences between the AIC (n = 161) and the CC (n = 1571) cohorts in terms of background characteristics and the overall disease loads were similar between the groups the preceding year. At baseline, the prescription of first-line anxiolytics and antidepressants were not statistically different between groups whereas the prescription of antipsychotics and hypnotics/ sedatives were lower for the AIC cohort. The overall change in drug prescriptions and costs during the investigated periods, both for the 90-days before/after and for the 180-days before/ after the index visit, showed a general decrease within the AIC cohort with significantly less prescribed anxiolytics and hypnotics/sedatives. During the same time periods there was a general increase in prescriptions and costs of first-line drugs within the CC cohort. The overall disease loads were generally stable within both cohorts over time, except that the CC cohort had increased visits registered with an ICD-10 F-chapter diagnosis the year after index.

Conclusions: The results suggests that there may be different drug utilization patterns for SRMD patients referred to AIC or CC. Different management strategies between AIC and CC providers, different SRMD disease severities and different preferences of patients referred to AIC and CC are hypothetical differentiating factors that may influence drug outcomes over time. Additional studies including prospective and randomized clinical trials are warranted to determine if there is a causal link between inpatient AIC and reduced drug utilization.

#### Massage

#### Kanitz JL, Reif M, Rihs C, Krause I, Seifert G.

A randomised, controlled, single-blinded study on the impact of a single rhythmical massage (anthroposophic medicine) on well-being and salivary cortisol in healthy adults. Complementary Therapies in Medicine, 2015, 23:5: 685-692.

**Background:** Rhythmical massage (RM) has evolved from classical massage and is based on the principles of Anthroposophic medicine. The goal of this randomized, single-blinded study was to assess the efficacy of a single RM intervention with either aroma oil (RA) or a neutral oil (RM) compared to a sham massage (SM) on several dimensions of well-being and salivary cortisol in a laboratory setting.

Methods: 118 healthy adults (mean age: 25.2 years; SD: 4.7) were randomized to one of three groups (RM, RA or SM). After baseline measurements, all subjects were exposed to an experimental stressful situation (Trier Social Stress Test, TSST), before receiving a single massage intervention of about 60 min including a 20-minute rest period. Well-being as the main outcome parameter was assessed by standardized questionnaires (MDBF, Bf-S, B-L) and visual analogue scales (VAS) prior to the beginning of the massage and subsequently. Salivary cortisol and heart rate variability (data are shown elsewhere) were also measured.

Results: Participants who received RM or RA showed no statistically significant improvements (MDBF, Bf-S, B-L) compared to the SM group after adjusting for baseline differences observed between the treatment groups. Furthermore, no statistically significant differences were found between the RM and RA groups in any of the analyses. Within a follow-up survey all participants from the RA and 82% from the RM group described the intervention as "relaxing" compared with 42% in the SM group. Salivary cortisol did not differ statistically significantly between the three groups over time.

Conclusions: We found no significant effect within this trial. This may be due to the methodological complexity of massage research and especially the sham-controlled design with only one single intervention examined. The influence of the setting, and the expectations of and interaction between participant and practitioner seem to play a role that needs to be verified. Therefore the true potential of rhythmical massage intervention still needs to be validated.

AlBedah Abdullah, Khalil Mohamed, Elolemy Ahmed, Hussein Asim A., AlQaed Meshari, Al Mudaiheem Abdullah, Abutalib Raid A., Bazaid Faisal Mohamed, Bafail Ahmad Saeed, Essa AboBakr, and Bakrain Mohammed Yahia.

The Journal of Alternative and Complementary Medicine. 2015, 21(8): 504-508. doi:10.1089/acm.2015.0065.

**Objectives:** To evaluate the effectiveness and safety of wet cupping therapy as a single treatment for persistent nonspecific low back pain (PNSLBP).

**Design:** Randomized controlled trial comparing wet cupping versus no treatment in PNSLBP.

**Setting:** Outpatient clinic in three secondary care hospitals in Saudi Arabia.

**Patients:** Eighty eligible participants with PNSLBP for at least 3 months were randomly allocated to an intervention group (n=40) or to a control group (n=40).

**Interventions:** Six wet cupping sessions within 2 weeks, each of which were done at two bladder meridian (BL) acupuncture points among BL23, BL24, and BL25. Only acetaminophen was allowed as a rescue treatment in both groups.

Outcome measures: The Numeric Rating Scale (NRS), McGill Present Pain Intensity (PPI), and Oswestry Disability Questionnaire (ODQ) were used as outcome measures. Numbers of acetaminophen tablets taken were compared at 4 weeks from baseline. Adverse events were recorded.

**Results:** At the end of the intervention, statistically significant differences in the three outcome measures favoring the wet cupping group compared with the control group were seen: NRS score, 29.2 (95% confidence interval [CI], 24.6–33.8) versus 57.9 (95% CI, 53.3–62.6), respectively; PPI score, 1.17 (95% CI, 0.96–1.4) versus 2.3 (95% CI, 2.1–2.7); and ODQ score, 19.6 (95% CI, 16.5–22.7) versus 35.4 (95% CI, 32.3–38.5) (p=0.0001). This improvement continued for another 2 weeks after the end of the intervention. Acetaminophen was used less in the wet cupping group, but this difference was not statistically significant. No adverse events were reported.

**Conclusions:** Wet cupping is potentially effective in reducing pain and improving disability associated with PNSLBP at least for 2 weeks after the end of the wet cupping period. Placebo-controlled trials are needed.

#### Nutrition

Enghoff H, Manno N, Tchibozo S, List M, Schwarzinger B, Schoefberger W, Schwarzinger C, Paoletti MG, Chen TS.

Millipedes as food for humans: their nutritional and possible antimalarial value - a first report. Evidence-Based Complementary and Alternative Medicine. 2014:651768.

The first record of millipedes (Diplopoda) being regularly used for food by humans (the Bobo people of Burkina Faso) is given, including information on how the millipedes are prepared. The species in question are Tymbodesmus falcatus (Karsch, 1881) and Sphenodesmus sheribongensis (Schiotz, 1966) (Gomphodesmidae) and an unidentified species of Spirostreptidae. New information on the nutritional value of millipedes is provided; unsaturated fatty acids, calcium,





and iron contents are particularly high. The millipedes' defensive secretions, hydrogen cyanide and benzoquinones, present a severe challenge for the spread of millipedes as an everyday food source. On the other hand, the possibility that benzoquinones may act as insect-repellents, as known from studies on nonhuman primates, and that sublethal cyanide ingestion may enhance human innate resistance to malaria, suggests promising ethnomedical perspectives to our findings.

Ball K, McNaughton SA, Le HN, Gold L, Ni Mhurchu C, Abbott G, Pollard C. Crawford D.

Influence of price discounts and skill-building strategies on purchase and consumption of healthy food and beverages: outcomes of the Supermarket Healthy Eating for Life randomized controlled trial. American Journal of Clinical Nutrition. 2015; 101(5): 1055-64

**Background:** Fiscal strategies are increasingly considered upstream nutrition promotion measures. However, few trials have investigated the effectiveness or cost effectiveness of pricing manipulations on diet in real-world settings.

**Method:** We assessed the effects on fruit, vegetable, and beverage purchasing and consumption of a 20% price-reduction intervention, a tailored skills-based behavior-change intervention, and a combined intervention compared with a control condition. The Supermarket Healthy Eating for Life trial was a randomized controlled trial conducted over 3 mo [baseline (time 1) to postintervention (time 2) with a 6-mo follow-up (time 3)]. Female primary household shoppers in Melbourne, Australia, were randomly assigned to a 1) skill-building (n = 160), 2) price-reduction (n = 161), 3) combined skill-building and price-reduction (n = 160), or 4) control (n = 161) group. Supermarket transaction data and surveys were used to measure the following study outcomes: fruit, vegetable, and beverage purchases and self-reported fruit and vegetable consumption at each time point.

**Results:** At 3 mo (time 2), price reduction-alone participants purchased more total vegetables and frozen vegetables than did controls. Price reduction-alone and price reduction-plus-skill-building participants purchased more fruit than did controls. Relative to controls, in the price-reduction group, total vegetable consumption increased by 233 g/wk (3.1 servings or 15% more than at baseline), and fruit purchases increased by 364 g/wk (2.4 servings; 35% more than at baseline). Increases were not maintained 6 mo postintervention (time 3). Price reduction-alone participants showed a tendency for a slight increase in fruit consumption at time 2 (P = 0.09) that was maintained at time 3 (P = 0.014). No intervention improved purchases of bottled water or low-calorie beverages.

Conclusion: A 20% price reduction in fruit and vegetables resulted in increased purchasing per household of 35% for fruit and 15% for vegetables over the price-reduction period. These findings show that price modifications can directly increase produce purchases. The Supermarket Healthy Eating for Life trial was registered at Current Controlled Trials Registration as ISRCTN39432901.

#### Yoga

Jeter PE, Slutsky J, Singh N, Khalsa SB.

Yoga as a Therapeutic Intervention: A Bibliometric Analysis of Published Research Studies from 1967 to 2013. The Journal of Alternative and Complementary Medicine. 2015, 21(10): 586-592

**Objective:** A comprehensive bibliometric analysis was conducted on publications for yoga therapy research in clinical populations.

Methods: Major electronic databases were searched for articles in all languages published between 1967 and 2013. Databases included PubMed, PsychInfo, MEDLINE, IndMed, Indian Citation Index, Index Medicus for South-East Asia Region, Web of Knowledge, Embase, EBSCO, and Google Scholar. Nonindexed journals were searched manually. Key search words included yoga, yoga therapy, pranayama, asana. All studies met the definition of a clinical trial. All styles of yoga were included. The authors extracted the data.

**Results:** A total of 486 articles met the inclusion criteria and were published in 217 different peer-reviewed journals from 29 different countries on 28,080 study participants. The primary result observed is the three-fold increase in number of publications seen in the last 10 years, inclusive of all study designs. Overall, 45% of the studies published were randomized controlled trials, 18% were controlled studies, and 37% were uncontrolled studies. Most publications originated from India (n=258), followed by the United States (n=122) and Canada (n=13). The top three disorders addressed by yoga interventions were mental health, cardiovascular disease, and respiratory disease.

Conclusion: A surge in publications on yoga to mitigate disease-related symptoms in clinical populations has occurred despite challenges facing the field of yoga research, which include standardization and limitations in funding, time, and resources. The population at large has observed a parallel surge in the use of yoga outside of clinical practice. The use of yoga as a complementary therapy in clinical practice may lead to health benefits beyond traditional treatment alone; however, to effect changes in health care policy, more high-quality, evidence-based research is needed.

# Immediate and precise heavy metal and trace element analysis at your desk



- No waiting detect current bio-availability in seconds
- · No hair sample needed
- · Portable device
- · Affordable, economical & profitable
- Full training provided
- PC or Mac

The cutting edge **OligoScan** enables you to make, in real time, a precise analysis of the mineral status of your patients for very specific prescription.

The **OligoScan** device uses *Spectrophotometry* to measure the optical density of the trace elements and heavy metals currently present in the tissues.

e jon@karunahealthcare.com.au w www.oligoscan.net.au





Nowadays alternate medicine practitioners are all learning Acupuncture and Chinese Herbal Medicine

**Open Day:** 14 Nov 2015 & 6 Feb 201 from 10am to 2pm

Enrol into Sydney Institute of Traditional Chinese Medicine (SITCM)

#### FEE HELP AVAILABLE

#### **Bachelor Degree of Traditional Chinese Medicine**

(double modalities of acupuncture and Chinese herbal medicine)

#### **COURSE COMMENCES: 15 FEB 2016**

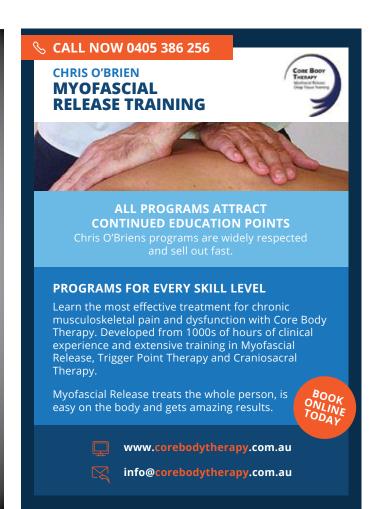
Approved by AUSTUDY Recognized by major Health Funds

- 31 years since establishment with graduates successfully practicing nationally and abroad
- National TCM registration
- Limited seat for international students
- 4 years visa for overseas students

**Flexible Time and Practical Course** 

We are in the city: Level 5, 545 Kent St, Sydney NSW 2000

3 2289 administration@sitcm.edu.au www.sitcm.edu.au





# Terra Rosa

The Source for Massage Info www.terrarosa.com.au

Myofascial Release, Deep Tissue Massage, Anatomy, Trail Guide to the Body, Neuromuscular Therapy, Anatomy Trains, Fascial Fitness, Orthopedic Massage Positional Release, Fibromyalgia, Craniosacral, BodyReading, Stretching, Sports Massage, Taping, Lymphatic Drainage, Muscle Energy Techniques, Chair Massage, Pregnancy Massage, Stone Massage, Reiki, Polarity Therapy, Lomi Lomi, Equine, Canine, Ayurvedic, Shirodara, Shiatsu, Acupressure, Thai Massage, TuiNa, QiGong, Tai Chi, Reflexology, Cupping, Yoga, Spa, Beauty Therapy and more

Expand Your Knowledge & Discover New Possibilities
We offer a variety of high quality massage books & training DVDs. Over 200 titles in Stock!



We have a good reputation for service & quality. The largest & best collection of massage books & DVDs in Australia.

Visit www.terrarosa.com.au E: terrarosa@gmail.com

HEALTH FUND	А		Are	Bow	Chinese Herb		Deep Tissa (No Arrest AT	Herb		100		1,000,000,000				Remedi	Remedi (HL7 Diplomi	(No longer AT	201000000000000000000000000000000000000		Spor		Remedia
UPDATE Health Faced	cupuncture	Technique MS Accredited)	omatherapy	en Therapy	al Medicine	Counselling	ue Massage MS Accredited)	al Medicine	moeopathy	Iridology	Kinesiology	tic Drainage	Naturopathy	Nutrition	Reflexology	ial Massage (Certificate IV)	ial Massage a or higher level qualification)	MS Accredited)	Rolfing MS Accredited)	Shiatsu	ts Massage	nal Chinese ial Massage (Centicate IV)	nal Chinese al Massage or higher level qualification)
Australian Health Management	,	,	,	,	,			`	,		,		`	,	'		,			`			
Australian Regional Health Group		100	100	10		3	3	2	1000	80	- 1	3	3	3	1	300		3		100	8		
ACA Health Benefits Fund	,				,			,	,				`			,	,	٠				•	•
Cessnock District Health	`		,		`			,	,				`			,	,	٠				٠	•
CUA Health (Credicare)	,		,	,					,		'		'		'		,	٠				•	
Defence Health Partners	,		,	-	,			,	,				`			,	`	٠				•	•
GMHBA (Geelong Medical)	1								1	- 55			'			1	,	٠				•	•
Frank Health Fund	`								`				`			`	1					•	•
Health Care Insurance Limited	`		,	,	,			,	`				`			,	,	٠				•	•
Health com au	`				`			`	1				`			>	,	٠				•	•
HIF (Health Insurance Fund of WA)	,				,				,				`			'	,	٠				•	•
Latrobe Health Services	1			. 17					,				1			1	,	٠				•	•
MDHF (Mildura District Hospital Fund)	,												>			1						•	
Navy Health Fund	`		,		`			,	_				`			`	'	٠				•	•
Onemedifund	`				`			,	,				`			1	1	٠				•	•
Peoplecare Health Insurance	,				,			,	,				'			,	'	٠				•	•
Phoenix Health Fund	1		,	15	1				,				1	i Es		1	'	٠				•	•
Police Health Fund	,		,		,				,				`			`	,	٠				•	•
Queensland Country Health	,			,					`				`			`							•
Railway and Transport	`			,	,				,				`			`	'	٠				•	•
StLukes	`				`			,	,				`			,	`	٠				•	•
Teachers Health	,	,	,	,	,			,	1		'		,		,	1	'	٠		,		•	•
Teachers Union Health	,		,						,				`	'		,	1	٠				•	•
Transport Health	,		,	,	`			,	,				`			'	/	٠				•	•
Westfund	`		,		,								1			1	'	٠				•	•
Australian Unity	,	,	,	,	,			`	,	`	'		,	`	`		,		-	,			
BUPA	'	1	,	,	,			,	,		,		,		,		,			'			,
CBHS Health Fund	1		,	,	,		1	,	,	/	`	1	1	1	,	1	1	1	'	,	1	1	1
Doctors Health Fund																	'						
GMF Health (Goldfields Medical Fund)	,				`		_		,				`		'	1						•	
GU Health (Grand United)*	`	,	,	,	,	`		,	,	1			`	'	1		'			1		,	,
Health Partners	,	,		,	,			,	,		,		'		`	,	,						
HBF	/	,	,	,	,			,	1	,	,		'	,	,		'			`			2
HCF	,		,		,			,	,		'		`	,	'		,			`	,		
Medibank Private	\		`	,	,	`		,	,	`	'		`	'	,		`			`			,
NIB	,			,	`		H	,	,	H		-	`	,			,		2	`		,	,
Reserve Bank Health Society	,				,			,	,				1			1	'	٠				•	•

Please note that this table is only a guide to show what funds cover ATMS accredited modalities. If the modality that you are accredited for is not listed, this means that no health fund covers the modality. The only exceptions are Chicocractic and Osteopathy, ATMS accreditation in a modality does not guarantee provider status as all funds have their inclinitual set of strict eligibility requirements. Please see our website www.atms.com.au or contact our office for current requirements. Rebates do not usually cover medicines, only face to face consultations. For further rebate terms and conditions, patients should contact their health fund, Policies may change without prior notice. Therapy covered by Fund

#### **Health Funds**

ATMS is a 'professional organisation' within the meaning of section 10 of the Private Health Insurance Accreditation Rules 2011. This potentially allows ATMS accredited members to be recognised as approved providers by the various private health funds. Approved health fund provider status is, however, subject to each individual health fund's requirements.

Consequently, membership of ATMS does not automatically guarantee provider status with all health funds. Please also note that several health funds do not recognise courses done substantially by distance education, or qualifications obtained overseas.

Additional requirements for recognition as a provider by health funds include:

- Clinic Address (Full Street Address must be provided - Please note that some health funds may list your clinic address on their public websites)
- Current Senior First Aid
- Current Professional Indemnity
   Insurance (some health funds require specific minimum cover amounts.

   Please refer to the individual health fund terms and conditions for further information)
- Compliance with the ATMS
   Continuing Education Policy along with any additional continuing education requirements stipulated by the health fund
- Current National Registration (where applicable)
- Compliance with the Terms and Conditions of Provider Status with the individual health funds.

ATMS must bave current evidence of your first aid and insurance on file at all times.

When you join or rejoin ATMS, or when you upgrade your qualifications, you will need to fill out the ATMS Health Fund Application and Declaration Form available on the ATMS website. Once this is received, along with any other required information for health fund eligibility assessment, details of eligible members

are sent to the applicable health funds on their next available listing. The ATMS office will also forward your change of details, including clinic address details to your approved health funds on their next available list. Please note that the health funds can take up to one month to process new providers and change of details as we are only one of many health professions that they deal with.

Lapsed membership, insurance or first aid will result in a member being removed from the health funds list. As health funds change their provider eligibility requirements from time to time, upgrading qualifications may be necessary to be re-instated with some health funds.

## TERMS AND CONDITIONS OF PROVIDER STATUS

Many of the Terms and Conditions of Provider Status for the individual health funds are located on the ATMS website. For the Terms and Conditions for the other health funds, it will be necessary to contact the health fund directly.

Please note that whilst there is no law or regulation requiring patient clinical notes to be taken in English, many of the major health funds do require patient clinical notes to be taken in English. Failure to do this will be a breach of the Health Funds Terms and Conditions and may result in the practitioner being removed as a provider for that health fund.

For health funds to rebate on the services of Accredited members, it is important that a proper invoice be issued to patients. The information which must be included on an invoice is also listed on the ATMS website. It is ATMS policy that only Accredited members issue their own invoice. An Accredited member must never allow another practitioner, student or staff member to use their provider details, as this constitutes health fund fraud. Misrepresenting the service(s) provided on the invoice also constitutes health fund fraud.

Health fund fraud is a criminal offence which may involve a police investigation and expulsion from the ATMS Register of Members.

It is of note that the health funds require practitioners to be in private practice. Some health funds will not recognise claims where accommodation, facilities or services are provided or subsidised by another party such as a public hospital or publicly funded facility. Rebates are only claimable for the face to face consultation (not the medicines or remedies); however this does not extend to mobile work including markets, corporate or hotels. Home visits are eligible for rebates.

# ONLINE OR PHONE CONSULTATIONS ARE NOT RECOGNISED FOR HEALTH FUND REBATES.

Please be aware that whilst a health fund may indicate that they provide a rebate for specific modalities, this rebate may only be claimable if the client has the appropriate level of health cover with that fund and has not exceeded any limits on how much they are eligible to claim back over a certain period of time.

BEING A PROVIDER IMPLIES ACCEPTANCE OF THE TERMS AND CONDITIONS FOR THE HEALTH FUNDS.

## Australian Health Management (AHM)

Names of eligible ATMS members will be sent to AHM each month. AHM's eligibility requirements are listed on the ATMS website **www.atms.com.au.**ATMS members can check their eligibility by checking the ATMS website or by contacting the ATMS Office on 1800 456 855. Your ATMS Number will be your provider number, unless you wish to have online claiming. You will then need to contact AHM directly for the new provider number

## Australian Regional Health Group (ARHG)

This group consists of the following health funds:

# HEALTH FUND NEWS

- · ACA Health Benefits Fund Ltd
- · Cessnock District Health Benefits Fund
- CUA Health Limited^
- · Defence Health
- GMHBA (Including Frank Health Fund)
- · Health.com.au
- Health Care Insurance Limited#
- HIF WA
- Latrobe Health Services (Federation Health)
- Mildura District Hospital Fund
- · Navy Health Fund
- Onemedifund
- · Peoplecare Health Insurance
- Phoenix Health Fund
- · Police Health Fund
- Queensland Country Health Fund Ltd#
- Railway and Transport Fund Ltd#
- St Luke's Health#
- Teachers Health#
- Teachers Union Health#
- Transport Health#
- Westfund

Details of eligible members, including member updates are sent to ARHG by ATMS monthly. The details sent to ARHG are your name, address, telephone and accredited discipline(s). These details will appear on the ARHG websites. If you do not wish your details to be sent to ARHG, please advise the ATMS office on 1800 456 855.

The ARHG provider number is based on your ATMS number with additional lettering. To work out your ARHG provider number please follow these steps:

- 1 Add the letters AT to the front of your ATMS member number
- 2 If your ATMS number has five digits go to step 3. If it has two, three or four digits, you need to add enough zeros to the front to make it a five digit number (e.g. 123 becomes 00123).
- 3 Add the letter that corresponds to your accredited modality at the end of the provider number:

A ACUPUNCTURE C CHINESE HERBAL MEDICINE H HOMOEOPATHY
N NATUROPATHY
O AROMATHERAPY
W WESTERN HERBAL MEDICINE
If ATMS member 123 is accredited in
Western herbal medicine, the ARHG
provider number will be AT00123W.

4 If you are accredited in several modalities, you will need a different provider number for each modality (e.g. if ATMS member 123 is accredited for Western Herbal Medicine and Aromatherapy, the ARHG provider numbers are AT00123W and AT00123O

### ARHG - REMEDIAL MASSAGE AND CHINESE MASSAGE

Remedial Massage and Chinese Massage therapists who graduated after March 2002 must hold a Certificate IV or higher from a registered training organisation.

Members who are accredited for Remedial Massage or Chinese Massage, will need to use the following letters:

M MASSAGE THERAPY R REMEDIAL THERAPY

The letter at the end of your provider number will depend on your qualification, not the modality in which you hold accreditation\*. All members who meet the ARHG eligibility requirements, who hold a Diploma of Remedial HLT50302 or HLT50307 or a Diploma of Chinese Remedial Massage HLT50102, HLT50107 or HLT50112 will be able to use both the 'M' and 'R' letters. It is recommended to use the 'R' as often as possible, but as not all health funds under ARHG cover 'Remedial Therapy', it will be necessary to use the 'M' at the end of the provider number for those funds only. All other eligible Remedial Massage Therapists who do not hold the Diploma of Remedial HLT50302 or HLT50307 or a Diploma of Chinese Remedial Massage HLT50102, HLT50107 or HLT50112 are required to use the 'M' at the end of their provider number.

\*Members accredited for Remedial Therapies and approved for ARHG for this modality under their previous criteria will continue to be recognised under Remedial Therapy and will be fine to use the 'R' in their provider number. Should members in this situation lapse membership, first aid or insurance etc they will then be required to meet the current ARHG criteria.

#### CUA Health – Bowen Therapy, Kinesiology And Reflexology

For the additional modalities that CUA Health covers that are not listed above including Bowen Therapy, Kinesiology and Reflexology, eligible providers will need to use the following to work out your provider number:

- 1 Add the letters AT which will be the start of your provider number
- 2 Add the letter that corresponds to your accredited modality at the end of the provider number;

B BOWEN THERAPY K KINESIOLOGY R REFLEXOLOGY

- 3 Then add your ATMS Number. If your ATMS number has five digits your provider number will now be complete. If it has two, three or four digits, you need to add enough zeros to the front to make it a five digit number (e.g. 123 becomes 00123). If ATMS member 123 is accredited in Kinesiology, the CUA provider number will be ATK00123.
- 4 If you are accredited in several modalities, you will need a different provider number for each modality (e.g. if ATMS member 123 is accredited for Kinesiology and Reflexology, the ARHG provider numbers are ATK00123 and ATR00123.

#### **ADDITIONAL NOTE**

For all modalities that these funds (Health Care Insurance Limited, Queensland Country Health Fund Ltd, Railway and Transport Fund Ltd, St Luke's Health, Teachers Federation Health, Teachers Union Health, Transport Health) cover that are not listed above including Alexander Technique, Bowen Therapy,

Kinesiology, Nutrition and Reflexology, eligible providers will need to use their ATMS number. Please refer to the Health Fund Table.

#### **Australian Unity**

Names and details of eligible ATMS members will be sent to Australian Unity each month. ATMS members will need to contact Australian Unity on 1800 035 360 to register as a provider, after filling out the Australian Unity Application Form located on the ATMS website to activate their provider status. This only needs to happen the first time. The provider eligibility requirements for Australian Unity are located on the ATMS website www. atms.com.au. Your ATMS number can be used as your Provider Number, or you can contact Australian Unity for your Australian Unity generated Provider Number. Please note that Australian Unity requires Professional Indemnity Insurance (to at least \$2 million) and Public Liability Insurance (to at least \$10 million)..

#### **BUPA**

Names and details of eligible ATMS members will be sent to BUPA on a weekly basis. The provider eligibility requirements for BUPA are located on the ATMS website **www.atms. com.au.** The Provider eligibility requirements include an IELTS test result of an overall Band 6 or higher for TCM qualifications completed in a language other than English. BUPA will generate a Provider Number after receiving the list of eligible practitioners. BUPA advises ATMS of your Provider Number and ATMS will then advise those members directly.

#### **CBHS Health Fund Limited**

Names and details of eligible ATMS members will be sent to CBHS each month. The details sent to CBHS are your name, address, telephone and accredited discipline(s). These details will appear on the CBHS website. If you do not want your details to be sent to CBHS, please advise the ATMS office on 1800 456 855. The provider eligibility

requirements for CBHS are located on the ATMS website **www.atms.com. au.** Your ATMS number will be your Provider Number

#### **Doctors Health Fund**

Names and details of eligible ATMS members will be sent to Doctors Health Fund each month. Please note that Doctors Health Fund only covers Remedial Massage. The provider eligibility requirements for Doctors Health Fund are located on the ATMS website **www.atms.com.au**. Your ATMS number will be your Provider Number.

#### **Grand United Corporate**

To register with Grand United Corporate, please apply directly to Grand United on 1800 249 966.

#### **HRF**

Names and details of eligible ATMS members will be sent to HBF each month. The provider eligibility requirements for HBF are located on the ATMS website **www.atms.com. au.** HBF is a Western Australian based health fund. HBF will only generate a provider number after they receive the first claim from your first HBF client.

#### **HCF**

Names and details of eligible ATMS members will be sent to HCF on a weekly basis. The provider eligibility requirements for HCF are located on the ATMS website **www.atms.com.au**. HCF do not issue provider numbers nor use your ATMS number as your provider number. They do however require your ATMS membership details, including your ATMS number, to be clearly indicated on all invoices and receipts issued

#### **Health Partners**

Names and details of eligible ATMS members will be sent to Health Partners each month. The provider eligibility requirements for Health Partners are located on the ATMS website **www.atms.com.au.** Health Partners uses the same Provider number system as

ARHG for certain modalities and the ATMS number or other modalities.

The provider number is based on your ATMS number with additional lettering. To work out your Health Partners provider number please follow these steps:

- 1 Add the letters AT to the front of your ATMS member number
- 2 If your ATMS number has five digits go to step 3. If it has two, three or four digits, you need to add enough zeros to the front to make it a five digit number (e.g. 123 becomes 00123).
- 3 Add the letter that corresponds to your accredited modality at the end of the provider number:

A ACUPUNCTURE
C CHINESE HERBAL MEDICINE
H HOMOEOPATHY
M REMEDIAL MASSAGE
N NATUROPATHY
W WESTERN HERBAL MEDICINE

If ATMS member 123 is accredited in Western Herbal Medicine, the provider number will be AT00123W.

4 If you are accredited in several modalities, you will need a different provider number for each modality (e.g. if ATMS member 123 is accredited for Western Herbal Medicine and Aromatherapy, the provider numbers are AT00123W and AT00123O.

For all other modalities that Health Partners cover that are not listed above including Alexander Technique, Bowen Therapy, Kinesiology and Reflexology, eligible providers will need to use their ATMS number.

#### **Medibank Private**

Names and details of eligible ATMS members will be sent to Medibank Private on a monthly basis. The provider eligibility requirements for

# HEALTH FUND NEWS

Medibank Private are located on the ATMS website www.atms.com.au. Medibank Private requires Clinical Records to be taken in English. Medibank Private generates Provider Numbers after receiving the list of eligible practitioners from ATMS. Medibank Private sends these provider numbers directly to ATMS. ATMS will then forward this information to the provider. Please note that Medibank has placed a restriction of up to a maximum 3 clinic addresses that will be recognised for Remedial Massage. There are no restrictions on the number of recognised clinics for other modalities.

#### **NIB**

Names and details of eligible ATMS members will be sent to NIB on a weekly basis. The provider eligibility requirements for NIB are located on the ATMS website www.atms.com.au. NIB does accept overseas Acupuncture and Chinese Herbal Medicine qualifications which have been assessed as equivalent to the required Australian qualification by Vetassess. Your ATMS Number will be your provider number, unless your client wishes to claim online. Your client will need to contact NIB directly or search by your surname and postcode on the NIB website www.nib.com.au for your provider number for online claiming purposes.

## Reserve Bank Health Society Limited

Details of eligible members, including member updates are sent to Reserve Bank by ATMS monthly. The details sent to Reserve Bank are your name, address, telephone and accredited discipline(s). These details will appear on the Reserve Bank website. If you do not wish your details to be sent to Reserve Bank, please advise the ATMS office on 1800 456 855.

The Reserve Bank provider number is based on your ATMS number with additional lettering. To work out your Reserve Bank provider number please follow these steps:

- 1 Add the letters AT to the front of your ATMS member number
- 2 If your ATMS number has five digits go to step 3. If it has two, three or four digits, you need to add enough zeros to the front to make it a five digit number (e.g. 123 becomes 00123).
- 3 Add the letter that corresponds to your accredited modality at the end of the provider number:
- **A** ACUPUNCTURE
- **C CHINESE HERBAL MEDICINE**
- **H** HOMOEOPATHY
- **N** NATUROPATHY
- O AROMATHERAPY
- W WESTERN HERBAL MEDICINE

If ATMS member 123 is accredited in Western herbal medicine, the Reserve Bank provider number will be AT00123W.

4 If you are accredited in several modalities, you will need a different provider number for each modality (e.g. if ATMS member 123 is accredited for Western Herbal Medicine and Aromatherapy, the Reserve Bank provider numbers are AT00123W and AT00123O.

#### RESERVE BANK - REMEDIAL MASSAGE AND CHINESE MASSAGE

Remedial Massage and Chinese Massage therapists who graduated after March 2002 must hold a Certificate IV or higher from a registered training organisation.

Members who are accredited for Remedial Massage or Chinese Massage, will need to use the following letters:

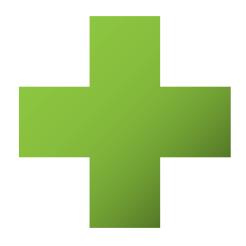
## M MASSAGE THERAPY R REMEDIAL THERAPY

The letter at the end of your provider number will depend on your qualification, not the modality in which you hold accreditation\*. All members who meet the Reserve Bank eligibility requirements, who hold a Diploma of Remedial HLT50302 or HLT50307 or a Diploma of Chinese Remedial Massage HLT50102, HLT50107 or HLT50112 will be able to use both the 'M' and 'R' letters. It is recommended to use the 'R' as often as possible, but as not all health funds under ARHG cover 'Remedial Therapy', it will be necessary to use the 'M' at the end of the provider number for those funds only. All other eligible Remedial Massage Therapists who do not hold the Diploma of Remedial HLT50302 or HLT50307 or a Diploma of Chinese Remedial Massage HLT50102, HLT50107 or HLT50112 are required to use the 'M' at the end of their provider number

\*Members accredited for Remedial Therapies and approved for Reserve Bank for this modality under their previous criteria will continue to be recognised under Remedial Therapy and will be fine to use the 'R' in their provider number. Should members in this situation lapse membership, first aid or insurance etc they will then be required to meet the current Reserve Bank criteria.

#### **HICAPS**

ATMS members who wish to activate these facilities need to register directly with HICAPS. HICAPS do not cover all health funds and modalities. Please go to **www.hicaps.com.au** or call 1800 805 780 for further information.







#### The ATMS Products & Services Guide will appear in every issue of JATMS

The cost is \$150 for one issue or \$500 for 4 consecutive issues. Listing comprises of – Logo, 100 word profile and contact information.

If you wish to list your company, practice, products, services or training course to appear in the next issue's ATMS Products & Services Guide, please contact Yuri Mamistvalov on 0419 339 865.

#### **PRODUCTS & SERVICES GUIDE**

#### **10 knots Uniforms**

### 10 knots

#### sales@10knots.com.au | www.10knots.com.au | 0487 101 001

Imagine if your uniforms were designed by a fellow Practitioner, someone who knows what the uniform should perform like in an active job... Introducing 10 knots uniforms, designed by Practitioners for Practitioners.

- Style and Comfort freedom to move, adjustable fit and superb cut.
- Durable and breathable quality fabrics. Natural Linen or Functional (Poly/Viscose).
- Ethically designed and manufactured in Australia, stock held on site, no minimum order.

Feel the difference, from AM to PM appointments you will look and feel fresh. ... I designed your uniforms with a genuine desire to make a difference, aesthetically and practically.

## Academy of Integrated Therapies (AOIT)



#### info@aoit.com.au | www.aoit.com.au | 07 3359 8523

About 15 years ago Neil Skilbeck, a Chiropractor and Osteopath made a valuable discovery integrating soft tissue and bones together. This has led to our course of Musculoskeletal Therapy (MST).

We believe in integrating knowledge as it leads to very powerful solutions such as we have demonstrated through our courses. We also provide CE workshops to fill in gaps in basic training of most body therapy courses.

These consist of foot corrections, nerve dynamics, limb neurology, axial and appendicular assessment and treatment and our specialty of pelvic mechanics.

#### **BioMedica Nutraceuticals**



#### info@biomedica.com.au | www.biomedica.com.au | 1300 884 702

BioMedica is an Australian owned company dedicated to the research, development and production of high quality, low excipient and efficacious practitioner formulations. Our products are developed by practitioners for practitioners. As a 'Strictly Practitioner Only' company, BioMedica is strongly dedicated to preserving and enhancing the role of the holistic practitioner. Our products are only sold to practitioners in a clinical setting, this has been our long standing policy since our inception in 1998, and remains firmly in place to this day. We also aim to provide highly relevant technical education materials and seminars, with practical research and insights that can be immediately integrated into clinical practice.

#### **Cathay Herbal**



#### orders@cathayherbal.com | www.cathayherbal.com | 1800 622 042

Established in 1986, Cathay Herbal is a company that is run by practitioners who constantly work to ensure they understand and meet the needs of you, the practitioner. All products sold by Cathay Herbal undergo rigorous development and investigation before being offered as part of their range. With one of the largest ranges of Chinese Classical formulas outside of China, they don't just stock the popular ones. Cathay's range is large and comprehensive. As well as the classical Black Pill range they also have many formulas available in tablet and capsules and a range of herbal granules, liquids and plasters.

#### **Chi-Chinese Healing College**



#### admin@chihealing.com.au | www.chihealing.com.au | 0416 286 899

Established since 1990 in Australia founded and directed by Master Zhang Hao, offering quality courses in nationally accredited qualifications of Diploma of Traditional Chinese Medicine Remedial Massage (An Mo Tui Na) and Diploma of Remedial Massage. The College is also conducting the short CE skill update courses and workshops throughout the year specially for professional massage therapists and health care workers. The College now also trading under the name - Australian School of Remedial Therapies to specialize in delivering Vocational Training Programs. If you still like the caring, practical and personalised traditional study model and environment - Try us!

#### **Eagle Natural Health**



## clinicalsupport@eaglenaturalhealth.com.au www.eaglenaturalhealth.com.au | 1300 265 662

Eagle is rightly regarded as a pioneer in the Australian 'practitioner' natural health sector. Established in 1966, our reputation is based on the passion and dedication of Eagle's founder, Dr Townsend Hopkins. Maintaining his wholehearted adherence to naturopathic principles, Eagle has created a range of advanced and effective naturopathic products. Leading Eagle formulas such as Tresos-B®, Beta A-C® Powder, Haemo-Red® Plus and Digestaid have set a standard of high quality and effectiveness that are now a part of the Australian healthcare practitioners' vernacular. Today, Eagle continues Dr Townsend Hopkins' traditions by producing formulas containing vitamins, minerals, amino acids, nutrients, herbs and homoeopathics that are trusted, reliable and efficacious.

#### **Health World Limited**



#### www.healthworld.com.au | 07 3117 3300

Health World Limited is recognised as a Leading Natural Health Science Company and the innovators in Natural Health products and Healthcare professional education. Health World Limited and Metagenics have invested in cutting edge manufacturing technology and equipment in order to expand production of the highest quality Natural Medicines. This level of commitment ensures that Health World Limited produces products that you and your patient can trust for quality and effectiveness.

#### **Helio Supply Co**



#### tcm@heliosupply.com.au | www.heliosupply.com.au | 02 9698 5555

Helio Supply Co is a wholesaler of Acupuncture and TCM supplies. We distribute nationally as well as internationally and pride ourselves on our service to customers. Established in 2000, we are committed to providing educational opportunities, a practitioner support line and sourcing the best domestic and international equipment and materials.

#### Herbs of Gold Pty Ltd



#### info@herbsofgold.com.au | www.herbsofgold.com.au | 02 9545 2633

Herbs of Gold has been dedicated to health since 1989, providing premium and practitioner strength herbal and nutritional supplements. Formulated by qualified, clinical and industry experienced naturopaths, herbalists and nutritionists, our formulations are based on current scientific research and traditional evidence. We take great care in all aspects of our business; right from the selection of raw materials through to the finished product, reviewing our environmental impact and sustainability of ingredients. All Herbs of Gold products meet stringent regulations for safety, quality and efficacy.

#### HESTA



#### hesta@hesta.com.au | hesta.com.au | 1800 813 327

For more than 25 years, HESTA has focused on helping those in the health and community services sector reach their retirement goals. We now have more than 785,000 members, 155,000 employers and more than \$28 billion in assets.

HESTA's size means we can offer many benefits to members and employers. These include: low fees, a fully portable account, easy administration, access to low-cost income protection and death insurance, limited financial advice (at no extra cost), super education sessions and transition to retirement options. We also provide access to great value health insurance, banking and financial planning. For more information visit **hesta.com.au** or call 1800 813 327.

Issued by H.E.S.T. Australia Limited ABN 66 008 818 695 AFSL No. 235249,Trustee of Health Employees Superannuation Trust Australia (HESTA) ABN 64 971 749 321. For more information about HESTA, call 1800 813 327 or visit hesta.com.au for a copy of a Product Disclosure Statement which should be considered

#### **Oligoscan Australasia**

when making a decision about HESTA products.



#### jon@karunahealthcare.com.au | www.oligoscan.net.au | 02 4228 0977

For practitioners of CAM to adequately treat patients with chronic diseases, it is essential to have at your fingertips to investigative tools to give the answers you need to create a viable treatment plan. Using the Oligoscan we can detect in only a few minutes the patient's heavy metal load in addition to the bio-availability of their nutritive minerals. We can show patients why they have their symptoms, and help them to see a way out and back to health. Oligoscan is non-invasive, requires no tissue biopsy, and uses state of the art technology called Spectrophotometry. For the next practitioner training day go to

#### http://oligoscan.net.au/events.html.

#### **Oncology Massage Training**



#### info@oncologymassagetraining.com.au www.oncologymassagetraining.com.au | 0410 486 767

Are you turning away clients with cancer? Oncology Massage Limited provide internationally recognised training for therapists who want to work safely with clients with cancer, in treatment for cancer or a history of cancer. Courses are held nationally around Australia, and we will schedule courses in regional areas where there is enough interest. We also maintain a national listing of therapists, trained by OM Ltd, which is accessed by cancer support organisations and hospitals nationally.

Don't turn clients with cancer away, or refer them on. Improve your skills and get the confidence you need to improve client wellbeing.

Contact us at **info@oncologymassagetraining.com.au** for more information or check out the website.

#### Sun Herbal



#### info@sunherbal.com.au | www.sunherbal.com | 1300 797 668

The No. 1 supplier of prepared Chinese herbal medicine in Australia and New Zealand. Your clinical success is our bottom line.

#### BLACK PEARL® pills • ChinaMed® capsules • Red Peony® granules for KIDS

192 herbal formulas effective for both common and difficult to treat conditions. Sun Herbal supports you with:

- A comprehensive website
- · Telephone support
- Detailed reference manuals
- Seminars & webinars
- Regular Sun Herbal 'Extracts' (research and case studies)
- Patient brochures & posters
- Samples & bonus offers
- Practitioner dispensing only

#### Terra Rosa



#### terrarosa@gmail.com | www.terrarosa.com.au | 0402 059 570

Terra Rosa specialised in educational massage DVDs and books. It has the largest collection of massage DVDs in Australia and the world, covering all modalities from Anatomy, Swedish Massage, Reflexology, Sports Massage to Myofascial Release and Structural Integration. We also provide the best in continuing education with workshops by international presenters including Orthopaedic Massage, Taping, Fascial Fitness and Myofascial Therapy.



# Nutrients to support gastrointestinal integrity and function

#### **By Rebecca Campbell-Smith** | BAppSc (Nat), GradDip (Nat)

The functional integrity of the gastrointestinal mucosa relies on the coordinated regulation of the mucus layer, the intracellular tight junction, epithelial cells, and the host innate and adaptive immune response.1 Inadequate intake of certain nutrients, particularly amino acids, have been shown to impair the physical integrity and growth of the intestinal epithelium and alter the immune response.2 During times of increased stress or physical trauma, severe infection or other pathological conditions, there may be an increase in tissue requirements and therefore the need for supplementation.2,3

Particular nutrients such as threonine, proline, serine, glutamine and N-acetyl glucosamine, have been shown to be of particular benefit in supporting intestinal mucosa integrity and function.

#### **Threonine**

Research has shown that approximately 40-60% of dietary threonine is taken up by the portal drained viscera, predominantly the gastrointestinal mucosa in the first pass metabolism. Here it is incorporated into mucosal proteins, including cellular and secretory proteins.<sup>3</sup>

Threonine is a major component of the peptide backbone of mucin, followed by proline and serine.<sup>4</sup> As the main component of intestinal mucus, mucin has an important role in supporting intestinal mucosa integrity.<sup>4</sup> As mucus is resistant to digestion, the amino acids present in the mucin cannot be reutilised by the body and therefore the

intestinal mucin secretion represents a net loss of threonine.<sup>4</sup>

The importance of threonine for intestinal mucosal structure and integrity has been demonstrated in animal trials. Results of these studies show a diet low in threonine can adversely affect the tight junctions of the epithelium, inducing villus atrophy and reducing the production of mucin.2 Further studies have shown that supplementation of threonine in deficient animals resulted in significantly increased duodenum and jejunum weight, as well as villus height and epithelial thickness.3 Supplementation also increased goblet cell numbers, and crypt cell depth in the small intestine.3

Research in human and animal models has demonstrated that intestinal inflammation, sepsis, colonic carcinoma, HIV, and infection lead to an increased requirement of threonine by the intestinal mucosa, due to enhanced synthesis of intestinal proteins.<sup>3</sup> This suggests that under pathological conditions regular dietary intake of threonine may be inadequate for the maintenance of intestinal mucosal integrity and supplementation may be of benefit.<sup>3</sup>

#### **Glutamine**

Glutamine's role in supporting the gastrointestinal mucosa has been well established. A preferred fuel source for enterocytes and lymphocytes in the small intestine, glutamine is an essential nutrient for mucosal epithelial cell growth, differentiation,

and proliferation.<sup>5</sup> Glutamine also has important roles in supporting mucosal integrity and barrier function via maintenance of the tight intracellular junctions.<sup>6</sup>

This has been demonstrated in studies showing that inadequate intake of glutamine results in epithelial atrophy, reduced expression of tight junction proteins claudin-1 and occludin, and redistribution of these proteins from intercellular junctions.<sup>6</sup>

In addition to its role in supporting the structural integrity of the gastrointestinal mucosa, glutamine provides protection via a number of ways. As it is the precursor to glutamate, glutamine aids in the production of glutathione, an important regulator of redox in both the enterocytes and lymphocytes.<sup>2</sup> Glutamine also has a protective role through its involvement in the production of heat shock proteins, which have an essential role in maintaining intestinal homeostasis.<sup>7</sup>

Although glutamine is classified as a nonessential amino acid, under pathological conditions, such as severe infections, physical trauma, or radiation-induced damage, intracellular and plasma concentrations of glutamine can fall, and the body's requirement for glutamine overwhelms its capacity for de novo synthesis. In these situations dietary supplementation may be required.<sup>6</sup>

#### N-acetyl glucosamine

N-acetyl glucosamine (NAG) is an acetylated derivative of glucosamine and

# How is your super invested?

#### By Hesta

an essential precursor in the synthesis of glycosaminoglycans (GAGs).8 GAGs are abundant in various layers of the intestinal mucin and mucosa, including the basement membrane, lamina propria, and submucosa.<sup>9</sup>

GAGs and their proteoglycan backbone are critical to supporting and organising the extracellular matrix, participating in cell-cell and cell-matrix interactions, cellular proliferation, cellular migration and cytokine and growth factor signalling associated with wound healing.<sup>10</sup>

With a hydrophilic nature and high negative charge, GAGs maintain tissue turgor and function as an electrostatic and mechanical barrier involved in the regulation of vascular and extracellular matrix permeability.<sup>11,12</sup>

As the degradation of GAGs has been associated with inflammatory bowel disease (IBD), studies have looked into the use of NAG supplementation as a potential therapy. 11 Preliminary evidence to support the benefit of oral N-acetyl glucosamine as an adjuvant therapy for paediatric chronic IBD has been demonstrated in a pilot study.13 At 3-6g daily given in three divided doses, subjects experienced significant improvement in symptoms and histology with an increase of epithelial and lamina propria GAGs as well as intracellular NAG.<sup>13</sup> Further to this, a 2015 pragmatic open-label clinical trial in adults with IBD also found significant improvement in symptoms following four weeks of oral NAG supplementation at 2g three times daily.14

Your super may seem like something you have no control over until you retire, but nothing could be further from the truth. You may not be able to access your super whenever you want, but chances are you can choose how it is invested within your fund.

Whether you're a new or experienced investor, HESTA makes it easy to make an investment choice that can help fund the retirement lifestyle you want.

Depending on how involved in your investment choice you want to be, you can leave your money in the Core Pool (our default option), choose one of our ready-made investment pools, design your own choice portfolio or mix and match from the above.

The key to making your investment choice is deciding how much risk you're comfortable taking, balanced against what level of investment return you want. Each HESTA investment option has its own objective, strategy and level of expected risk and return. The option(s) you choose should be shaped by your own needs and goals.

We understand that no matter what stage of life you're at, making the right investment choice to suit your retirement needs can be confusing. However, personal advice on your super is available to HESTA members through your Superannuation Adviser, at no extra cost.

For more information on the investment choices available through HESTA, request a Member investment choice presentation at your workplace, visit hesta.com.au for a copy of our Investment Choices guide or call 1800 813 327 to arrange a consultation with a HESTA Superannuation Adviser.

With more than 25 years of experience and \$32 billion in assets, more people in health and community services choose HESTA for their super.

This material is issued by H.E.S.T. Australia Ltd ABN 66 006 818 695 AFSL No. 235249, the Trustee of Health Employees Superannuation Trust Australia (HESTA) ABN 64 971 749 321. Information provided is of a general nature. It does not take into account your objectives, financial situation or specific needs. You should look at your own financial position and requirements before making a decision and may wish to consult an adviser when doing this. This information contains H.E.S.T. Australia Ltd's interpretation of the law but should not be relied upon as advice. For more information, call 1800 813 327 or visit hesta.com.au for a copy of a Product Disclosure Statement which should be considered when making a decision about HESTA products.



# A local, natural sunscreen manufacturer shares their tips on good sunscreen usage

#### By MooGoo

MooGoo Skin Care recently released their Natural SPF 40 Sunscreen. Many regard sunscreen as an inconvenient necessity. Sometimes they can be greasy, sometimes they contain ingredients that may not be in-line with what people would normally put on their skin or their children's skin, and there can also be some confusion about how they should be used.

Here are the basics of good sunscreen use:

• There are two categories of sunscreen. Most commercial sunscreens use UV Filters to absorb UV radiation and for this reason gradually break down on the skin. They generally need to be reapplied every one to two hours, as per the directions, to maintain adequate sun protection. These types of sunscreens are often light and easy to apply, and a little cheaper to purchase.

The other type of sunscreen uses zinc oxide to reflect UV radiation away from the skin, acting like a reflective barrier. Clear zinc oxide sunscreens rub in clear, but first needs to warm up to body temperature, requires a little extra effort for application, and can be a bit thicker in consistency.

- A high SPF number does not mean a sunscreen will provide sun protection for a longer time. SPF measures sun protection at a given time, which is tested about 20 minutes - and not hours - after application. Some sunscreens need to be reapplied frequently in sunlight to maintain their SPF level. A high SPF will give many hours of protection, provided it is used as directed.
- Sunscreens do not need to list all the ingredients they contain, only the active ones and the preservatives used. This can make choosing one difficult for people with allergies to certain ingredients, specific beliefs such as veganism, or a preference for natural ingredients.

The best sun protection, and first line of defence, is good clothing, a hat and avoiding the sun during peak hours. The next step is to choose the type of sunscreen you are most comfortable with and applying it as directed. If your sunscreen requires frequent reapplication, make sure not to forget!



# Chronic Fatigue Part 5: Assessing Lead Toxicity - Before and After Treatment

#### **By Jon Gamble** | BA ND ADHom

We all know that lead is toxic and causes detrimental symptoms in many people.

Identifying both the level of toxic minerals and the effect of your treatment in lowering the offending metal is a key to successful treatment. Here is a case of lead toxicity in a HSC student that couldn't be put down to 'stress'.

This 17-year-old boy with HSC exams looming before him said: "I can't retain anything I read, or make my brain work. I used to be really good at analytical thinking and figuring out problems, but now I just can't follow a train of thought through. It's making me worried, because my exams are only four months away."

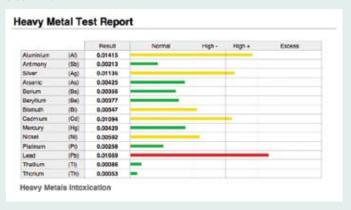
I treated his whole family, so I knew their lifestyle was healthy, and it was unlike him to have difficulty concentrating: he had always performed well at school. Although he preferred surfing to studying, he took the HSC seriously because he wanted to study science at Uni.

An Oligoscan reading detected an unusually high lead level (see Scan 1). Lead is well known for its effects on mental function and development, particularly in children.

#### First prescription:

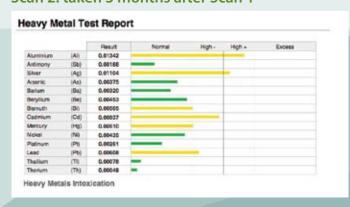
- 1. BioResearch homeopathic lead chelation formula Pb Met.
- 2. Adrenal herb Brahmi
- 3. N-Acetyl Carnitine, for mental function and chelation.

#### Scan 1.



Three months later at follow-up, he was much improved, with the Oligoscan showing a drastic reduction in his lead level. (See Scan 2) This correlated with his improved symptoms and he went on to do well in his HSC.

#### Scan 2: taken 3 months after Scan 1



#### **Comment**

Foggy thinking and reduced mental function are common in chronic fatigue patients. Having this kind of in-consultation clarity is of huge benefit in practice, because a scan can be done in a few minutes during the consultation to confirm suspicion about heavy metal toxicity and/or nutritional deficiencies.



# 2016 Enrolments now open at SITCM

#### By the Sydney Institute of Traditional Chinese Medicine

A new research-led Chinese medicine clinic in Sydney, better patient outcomes and the potential for Australia to tap into the \$170 billion global traditional Chinese medicine market are among the benefits set to flow from an agreement signed on 17 November 2014 in Canberra in the presence of Prime Minister Tony Abbott and People's Republic of China President Xi Jinping.

The focus of the new agreement will be the development of an Australian first, a high quality Chinese medicine integrative clinical service in Sydney, which will have a close connection to both clinical and laboratory-based research. It is hoped that the research will lead to the development of new treatments for unmet medical needs and new medicines for export around the world.

Australia is the only Western nation to have a unified national registration of Chinese medicine practitioners and strict regulation of medicines, which



delivers safe healthcare to thousands of Australians every year.

A Free Trade agreement was also signed between Australia and China on 17 June 2015, which provides for oversight of TCM development in Australia.

Enrolment in Sydney Institute of Traditional Chinese Medicine 2016 has now opened. The open day is 14 November 2015 and 6 February 2016, from 10am to 2pm. Ph: 02 92122498

Disclaimer: The views and opinions expressed in these advertorials are those of the authors and do not necessarily reflect the opinions of ATMS or its Directors.

# SWITCH YOUR PROFESSIONAL INDEMNITY INSURANCE TO GSA FOR YOUR CHANCE TO WIN A \$2,500 TRAVEL VOUCHER

GSA is offering ATMS members who are not currently insured through GSA the opportunity to win a \$2,500 Webjet Travel Voucher. Simply switch your Professional Indemnity insurance to GSA in the months of January, February, March or April to automatically go in the draw.

Key benefits of the GSA/ATMS Professional Indemnity policy are:

- EASY online application
- REDUCED pricing
- BROADER coverage
- INSTANT policy documentation issuance and notification to ATMS
- NIL excess to apply for all claims
- UNLIMITED retroactive cover
- 7 years FREE run off cover

Buy your insurance policy now at http://po.st/buyATMSinsurance





# Supporting you to achieve outstanding results for your patients

#### **By Sun Herbal**

#### Case ID: SKN003 by SHU WANG

Acupuncturist/Chinese Herbalist, NSW Female, 51, nurse, with severe eczema.

Patient presented on 11/06/15 with severe itching and dry skin, which had been present for the past two months, all over her body. The symptoms came on fairly suddenly after showering one morning. She lives in a remote rural area and believes there may have been come contaminants in the town water supply that irritated her skin. She was referred to a dermatologist who took biopsies of the affected skin and made a diagnosis of eczema. She was given a cortisone cream, which failed to provide any relief. She tried various over the counter products, but the condition still continued to worsen.

#### Main signs and symptoms:

Large red-brown rashes over the face, chest, arms and legs, more severe on the inner surfaces of the limbs. The lesions do not exhibit scaling or exudation. Some areas show swelling and there is scattered lichenification. The affected areas are warm to the touch. Itching is so severe that she is unable to stop scratching and has difficulty sleeping. She continued to scratch her skin during the consultation.

#### Other signs and symptoms:

Fatigue and irritability due to loss of sleep, tired appearance, loss of taste for food.

**Tongue:** deep purple body with a greasy coat. Pulse: deep, rapid and choppy

**Diagnosis:** Liver-Gallbladder Damp-Heat, Blood stasis blocking the Luo Channels, Exuberant Heat Toxin

#### **Treatment principle:**

 a) Clear the Liver and drain Fire. Clear Damp-Heat. Nourish the Yin and moisten Dryness

b) Activate the Blood and dispel stasis. Clear Heat Toxin. Expel Wind. Nourish the Yin and moisten Dryness

#### **Treatment formulas:**

Strategy a) Black Pearl® Long Dan Xie Gan Tang (Gentiana Formula BP016) a.k.a. ChinaMed® ANTI-INFLAMM. FORMULA (CM119)

**Dosage:** 50 pills (or 12 capsules), 4 times daily for 7 days.

#### **Outcome:**

After one week there was little change apart from a slight reduction in itching. Therefore strategy a) was not sufficient. Prescribing according to strategy b), patient was given:

Black Pearl® Si Miao Yong An Wan - Jia Wei (Lonicera & Scrophularia Formula BP059) a.k.a. ChinaMed® BIO-CLEAR (CM190)

**Dosage:** 50 pills (or 12 capsules), 4 times daily for 7 days.

Plus Black Pearl® Xiao Feng San (Danggui & Arctium Formula BP030)

**Dosage:** 50 pills (or 12 capsules), 2 times daily (morning and evening) for 7 days.

After one week on the above combination the itching had stopped, the patient was better able to sleep, and her energy level began to improve. The rash had receded and become less red, although there were still some smaller patches present.

Continued with the same treatment for another week. After one more week all symptoms had resolved.

#### **Comments:**

Generally acute stage eczema (when signs of Heat and Fire are prominent) is due to Damp-Heat and Fire; and the most effective formula to treat at this stage is Black Pearl® Long Dan Xie Gan Tang (BP016) a.k.a. ChinaMed® ANTI-INFLAMM. FORMULA (CM119). However, when there are signs of Blood stasis and Heat Toxin, which generally develop over time and mark the subacute or chronic stage presentation, the best treatment strategy is to activate the Blood and dispel stasis, while also clearing Heat Toxin and nourishing the Yin to moisten Dryness. The formula Black Pearl® Si Miao Yong An Wan (BP059) covers these principles, while the formula Black Pearl® Xiao Feng San (BP030) is included as an adjunct to dispel Wind and alleviate itching while also reinforcing the principle of nourishing Yin to moisten Dryness.



# CORE Structural Integration and Myofascial Therapy:

### A Lifetime of Improving Structure and Function

#### By George P. Kousaleos | LMT

From the earliest days of my study of the disciplines of Structural Integration and Myofascial Therapy I was fascinated with the importance of recognizing the foundational relationships between structure and function. Indeed, over many years and decades of practising and teaching this incredible work, I never lost sight of those relationships that not only improve structure and function, but also increase neurosomatic awareness and restore a sense of physical and mental confidence.

I opened the CORE Institute in Tallahassee, Florida in 1990, and, creating an entry level professional massage therapy program that included structural and myofascial education, I looked for opportunities to help prepare my students for the day that each of them would embark on their professional journey. I was thrilled when the British Olympic Association decided to hold their warm-weather preparation camps at Florida State University to prepare their athletes for the 1996 Atlanta Olympics. British Olympians from 13 sports received regular treatments from CORE students during three weeks of strenuous twoa-day practice sessions during the summers of '95 and '96.

The Atlanta Olympics led to my involvement as a Co-Director of the International Sports Massage

Team of the 2004 Athens Olympics & Paralympics. One hundred and eighty therapists were chosen from 18 countries to provide therapeutic massage to over 15,000 athletes and coaches. Many athletes had never experienced massage therapy in their home countries and relished the improvement to form and function at the most meaningful time of their life. An Italian gymnast, who came to the clinic daily, won the gold medal in the horizontal bar in one the biggest upsets of the Athens Olympiad.

I was also engaged in creating Myofascial Therapy protocols for the leading athletes of the Florida State University Football Team. From 2011 to this day these athletes receive twice a week treatment from our graduates during the regular season as well as during all spring and summer training camps. During this time, soft-tissue injuries decreased by 75% and FSU won three ACC Championships and the 2013 National Championship.

In September last year I was honoured to travel to Sydney, Australia and teach leading therapists from all across Australia. Many of these therapists work in allied medical fields, including physiotherapy, podiatry and acupuncture. On the ninth and final day of the intensive seminar we invited current and former professional and Olympic athletes to a special clinic.

Each athlete responded favourably to their sense of improvement from a 90-minute full body session, with several emailing us later in the week with amazing stories of how their training had improved. The common theme we heard was "I feel more awareness of my body and how integrated my movements have become."

I am more than satisfied that during the past four decades I have represented one of the finest approaches to structural and functional improvement. Each year I look forward to introducing this work to curious and dedicated therapists who are searching for the keys to providing long-lasting health and wellness to those they serve each day. Each day I enjoy my clinical sessions with professional and amateur athletes who want to maintain elite athletic levels, with clients rehabbing from serious injuries and disease, and with those who simply yearn for a deeper sense of self. Each day I find happiness.

For more information on the CORE Myofascial Therapy certification visit **www.terrarosa.com.au** 

# **Continuing** *Education*

Continuing education (CE) is a structured program of further education for practitioners in their professional occupations.

The ATMS CE policy is designed to ensure its practitioners regularly update their clinical skills and professional knowledge. One of the main aims of CE is to keep members abreast of current research and new developments which inform contemporary clinical practice.

The ATMS CE policy is based on the following principles:

- Easily accessible to all members, regardless of geographic location
- Members should not be given broad latitude in the selection and design of their individual learning programs
- Applicable to not only the disciplines in which a member has ATMS accreditation, but also to other practices that are relevant to clinical practice which ATMS does not accredit (e.g. Ayurveda, yoga)
- Applicable to not only clinical practice, but also to all activities associated with managing a small business (e.g. bookkeeping, advertising)
- Seminars, workshops and conferences that qualify for CE points must be of a high standard and encompass both broad based topics as well as discipline-specific topics
- Financially viable, so that costs will not inhibit participation by members, especially those in remote areas
- Relevant to the learning needs of practitioners, taking into account different learning styles and needs

- Collaborative processes between professional complementary medicine associations, teaching institutions, suppliers of therapeutic goods and devices and government agencies to offer members the widest possible choice in CE activities
- Emphasis on consultation and cooperation with ATMS members in the development and implementation of the CE program

ATMS members can gain CE points through a wide range of professional activities in accordance with the ATMS CE policy. CE activities are described in the CE policy document as well as the CE Record. These documents can be obtained from the ATMS office (telephone 1800 456 855, fax (02) 9809 7570, or email info@atms.com.au) or downloaded from the ATMS website at www.atms.com.au.

It is a mandatory requirement of ATMS membership that members accumulate 20 CE points per financial year. CE points can be gained by selecting any of the following articles, reading them carefully and critically reflecting on how the information in the article may influence your own practice and/or understanding of complementary medicine practice. You can gain one (1) CE point per article to a maximum of three (3) CE points per journal from this activity:

- Kingston A. Microneedling and acupuncture facial rejuvenation compared
- Homes T. Rural naturopaths' provision to poorer clients
- Boyle M. Whole-system approach and evidence-based medicine research models: are these two systems of research irreconcilable?

- de Permentier P. Quadratus lumborum: anatomy, physiology and involvement in back pain
- Medhurst R. Update on research in homoeopathy
- Hart L. Working within the law
- Pagura I. Negligence: what you need to know Part 2

As part of your critical reflection and analysis, answer in approximately 100 words the following questions for each of the three articles:

- 1 What new information did I learn from this article?
- 2 In what ways will this information affect my clinical prescribing/ techniques and/or my understanding of complementary medicine practice?
- 3 In what ways has my attitude to this topic changed?

Record your answers clearly on paper for each article. Date and sign the sheets and attach to your ATMS CE Record. As a condition of membership, the CE Record must be kept in a safe place, and be produced on request from ATMS.



#### **FEBRUARY 2016**

**MELBOURNE** Sunday, 21st February 2016

9:00am - 1:00pm TCM Support for Your Ageing Clients - Focus on Chronic

ULTS FOR YOUR PATIENTS.

**Conditions** By Peter Kington

To Book: Acuneeds Australia 1800 678 789 / 03 9562 8198 or info@acuneeds.com

#### **MARCH 2016**

**AUCKLAND** Sunday, 6th March 2016

9:00am - 4:00pm Better IVF Outcomes for Men and Women with Chinese

Medicine By Peter Kington

To Book: NZIA +64-9-4424588 or secretary@nzia.org

Herbs for Health +64-9-4485418 or herbsforhealth@xtra.co.nz

BRISBANE Sunday, 13th March 2016 9:00am - 2:00pm Male Fertility By Peter Kington

To Book: Carol Anderson 07 3852 2288 or admin@chineseherbalsupplies.com.au

#### **APRIL 2016**

**SYDNEY** Sunday, 10th April 2016

TCM Support for Your Ageing Clients – Focus on Chronic 9:00am - 1:00pm

**Conditions** By Peter Kington

To Book: Helio Supply Company 1800 026 161 / 02 9698 5555 or tcm@heliosupply.com.au

**MELBOURNE** Sunday, 17th April 2016

9:00am - 1:00pm Digestive Disorders By Peter Kington

To Book: China Books 1800 448 855/03 9663 8822 or info@chinabooks.com.au

#### MAY 2016

**SYDNEY** Wednesday, 11th May 2016

6:30pm - 9:30pm Stubborn Skin Problem: Eczema/Dermatitis; Psoriasis;

Acne By Tony Reid

To Book: China Books Sydney 1300 661 484 / 02 9280 1885 or info@chinabookssydney.com.au

**ADELAIDE** 

Sunday, 15th May 2016

9:00am - 4:30pm Part 1 - Menstrual Disorders

Part 2 - TCM Support for Your Ageing Clients - Focus on

**Chronic Conditions** By Peter Kington

To Book: Acuneeds Australia 1800 678 789 / 03 9562 8198 or info@acuneeds.com

#### **JULY 2016**

**AUCKLAND** Sunday, 24th July 2016

9:00am - 1:00pm Part 1 - Mood Disorder in TCM - Focus on Depression (2 hours)

> Part 2 - Dementia & Cognitive Impairment – How to **Approach Patients with Early Signs of Dementia**

using TCM By Tony Reid

To Book: NZIA +64-9-4424588 or secretary@nzia.org

Herbs for Health +64-9-448 5418 or herbsforhealth@xtra.co.nz

Sunday, 24th July 2016

9:00am - 4:30pm Part 1 - Menstrual Disorders

Part 2 - TCM Support for Your Ageing Clients — Focus on

Chronic Conditions By Peter Kington

To Book: Julie Fergusson 08 9311 6800 or JulieF@renerhealth.com

#### **AUGUST 2016**

SYDNEY Sunday, 7th August 2016

9:00am - 1:00pm Digestive Disorders By Peter Kington To Book: China Books Sydney 1300 661 484 / 02 9280 1885 or

info@chinabookssydney.com.au

**BRISBANE** Sunday, 28th August 2016

9:00am - 2:00pm Digestive Disorders By Peter Kington

To Book: Carol Anderson 07 3852 2288 or admin@chineseherbalsupplies.com.au

#### SEPTEMBER 2016

SYDNEY Thursday, 1st September 2016

6:30pm - 9:30pm Chronic Disease Management Part 1 - Gastrointestinal

System. By Tony Reid

To Book: Helio Supply Company 1800 026 161 / 02 9698 5555 or tcm@heliosupply.com.au

#### OCTOBER 2016

**MELBOURNE** Sunday, 9th October 2016

9:00am - 1:00pm Chinese Medicine in the Treatment of Thyroid and

Autoimmune Disorders By Peter Kington

To Book: China Books 1800 448 855/ 03 9663 8822 or info@chinabooks.com.au

**AUCKLAND** 

Sunday, 30th October 2016

9:00am - 4:00pm Part 1- Menstrual Disorders

Part 2 - TCM Support for Your Ageing Clients - Focus on

**Chronic Conditions** By Peter Kington

To Book: NZIA +64-9-4424588 or secretary@nzia.org

Herbs for Health +64-9-448 5418 or herbsforhealth@xtra.co.nz

#### YOUR PRESENTERS:

TONY REID

Master of Acupuncture, Master of TCM (UWS). Sun Herbal Co-founder, Managing Director.

Tony has over thirty years' experience as a practitioner, educator and author in TCM. He is a popular and sought after lecturer, speaking at seminars, conferences and tertiary institutions - throughout Australia, Europe and also in China. Tony is a keynote speaker with ANTA, regularly contributes articles to several professional journals both in Australia and overseas, and publishes 'Clinical Focus' bulletins for healthcare professionals.

"Tony's seminars are always great. Passionate, as always, about the subjects." G.S. Vic



Owner of Conceive -

Natural Health & Fertility in Red Hill, Brisbane.

Peter has been in practice since 2005. In addition to full time practice, Peter writes and presents professional development seminars for Chinese medicine practitioners both locally and interstate. He has recently completed a Masters of Reproductive Medicine at the University of NSW.

"Peter is an excellent presenter, professional, well-versed in his topic, thorough and entertaining. Everything you want in a lecturer." G.B. Sydney