

The 10th International Conference on Herbal Medicine
Hosted by the Naturopaths and Herbalists Association of Australia
(NHAA);
17-19 March 2017, Sofitel Brisbane, Queensland, Australia

ACCEPTED ABSTRACTS

Vitamin D – The sunshine vitamin: implications and use in chronic disease

Ms Rebecca Walton^{1,2}

¹Goulds Natural Medicine, Hobart, Australia, ²University of Tasmania, Sandy Bay, Australia

Biography:

Rebecca is a naturopath, nutritionist and herbalist at Gould's Natural Medicine in Hobart, Tasmania. She also has a position at the University of Tasmania, assisting with the teaching of evidence-based complementary medicine. She holds a Bachelor of Naturopathy and a Bachelor of Clinical Sciences with a double major in Human Nutrition and Complementary Medicine from Southern Cross University. She completed the Gould's internship program in 2014, and now works in private clinical practice and in the busy over-the-counter apothecary.

Introduction: Vitamin D is attracting research across multiple fields and applications. Clinically, vitamin D has a role in the treatment and prevention of chronic diseases, including cancer, diabetes, arthritis, fertility challenges and miscarriage, cardiovascular disease, dementia and depression.

Focus of Discussion: According to the Australian Bureau of Statistics, 1 in 4 Australians are deficient in Vitamin D; however, what constitutes true deficiency may not be so clear cut. Advisory bodies in Australia and internationally differ in their recommendations around vitamin D, and a clear understanding of these differences is necessary to fully understand vitamin D safety and prescribing. Naturopaths and herbalists hold a unique position in health care – we are able to look at preventative and total physiological health and apply this holistic understanding to vitamin D absorption, distribution and deficiency. Looking at the evidence base for vitamin D sufficiency, we can explore the blood level required to prevent disease, the role of individualising dosage prescriptions, the role it plays in preventative health and its clinical application in the treatment of multiple chronic diseases. Consideration for where and

how we absorb vitamin D according to seasonal, regional and environmental variations, as well as who is at risk for true deficiency will be explored.

Implications: An understanding of the far-reaching implications for the use of vitamin D and clarity around optimal blood levels, including how this is obtained, are both crucial for effective evidence-based prescribing.

Does herbal medicine assist breastfeeding mothers with an insufficient milk supply?

Ms Diana Bowman^{1,2}

¹University of Technology Sydney, Australia, ²Endeavour College of Natural Health, Brisbane, Australia

Biography:

Diana Bowman is a naturopath, medical herbalist, lecturer, mum and grandma. She loves family and is passionate about education and plants, growing them and using them medicinally. Originally a teacher in New South Wales, she moved to Queensland 25 years ago and started a new career in naturopathy. She opened her first multi-modality practice centred on family wellbeing in 1996, where her practice focused primarily on children's health, as it still does today.

Returning to the classroom in 2000 with Endeavour College of Natural Health (formally Australian College of Natural Medicine), she teaches botany and herbal medicine as well as supervising student clinics. In 2016 she combined her passions into a series of speaking engagements entitled 'Healthy, Happy Kids' and was accepted as a PhD candidate with the University of Technology Sydney. Her research project is investigating the use herbal medicine to promote breastfeeding. Diana is affiliated with Endeavour College of Natural Health, University of Technology Sydney and practices in Herbs on the Hill in Brisbane.

Introduction: Inadequate breast milk supply has been identified as a significant issue, often resulting in the cessation of breastfeeding, with few effective therapies known to benefit women with the problem. Previous studies reveal women who use herbal medicines during their pregnancy are more likely to initiate breast feeding and continue for more than 6 months. This literature review examined whether the use of herbal galactagogues have a role in improving milk production in puerperal women experiencing insufficient milk supply (IMS).

Methods: A systematic literature review is being conducted to provide accurate and broadly representative estimates of the clinical efficacy of herbal galactagogues in IMS. Electronic searches were conducted in Medline, Embase, Cochrane Library, AMED, MANTIS, PsycINFO, Maternity and Infant Care and unpublished trial data on clinical trial registers (2000 to 2016).

Results: The database search yielded over 2000 articles; however, very few of these were specific to the literature review's criteria of improving milk supply with herbal medicine. Most notably, *Trigonella foenum-graecum* (fenugreek), *Foeniculum vulgare* (fennel), *Illicium verum* (star anise) and *Zingiber officinale* (Ginger) have received recent research attention to complement their long, traditional history of use as herbal galactagogues.

Discussion/Conclusion: Current research examining herbal medicine for women with IMS is sparse and needs to be understood in relation to its clinical usefulness. Future research needs

to focus on repeatable results, which can assure the practitioner of not only a herb's safety, but its efficacy in delivering desired treatment results.

An evidence-based guide for the development of a traditional liquid reishi extract

Ms Kristie Harper¹, Mr George Stefanovski¹

¹The Herbal Extract Company of Australia, Minto, Australia

Biography:

Kristie Harper is an author, researcher and product developer. She is a specialist and innovator of liquid herbal extraction methods, with a background in medical science. George Stefanovski is a research supervisor, scientist and technical manager, with over 10 years' experience in herbal medicine manufacturing, having a background in chemistry and nanotechnology.

Introduction: Development of an experimental method for extracting reishi mushroom extract will be detailed to provide the herbal industry with an evidence-based guide for creating a traditional herbal extract. The overall goal was to use an evidence-based strategy for establishment of a manufacturing method that provides the highest extraction efficiency whilst maintaining a “traditional broad-spectrum, non-standardisation” philosophy, therefore producing high quality, low processed traditional herbal extracts.

Methods: Herbal ratio determination: 1:3, 1:4 vs 1:5. Temperature determination: ~24°C vs 45°C. Cut size determination: 1-2cm vs 1-2mm. Time determination compared 24, 48 and 72-hour processing.

Results: 1:5 was the ideal herbal ratio. 45°C was the ideal temperature. Milled (1-2mm) was the ideal cut size. A 2-day extraction process was the ideal timeframe.

Discussion: Without an evidence-based guide for extracting the reishi mushroom, the ideal ratio, temperature, cut size and time to extract would be unknown. This method provides the best practice for development of a traditional extract whilst utilising science to guide the process.

DNA barcoding in the authentication of herbal materials and products – a valid and useful approach?

Dr Hans Wohlmuth^{1,2}, Dr David Leach^{1,3}, Dr Ken McGrath⁴, Mr Peter Mouatt⁵, Prof Kerry Bone¹, Prof James De Voss²

¹*Integria Healthcare, Ballina, Australia*, ²*University of Queensland, St. Lucia, Australia*, ³*Western Sydney University, Campbelltown, Australia*, ⁴*Australian Genome Research Facility, St Lucia, Australia*, ⁵*Southern Cross University, Lismore, Australia*

Biography:

Hans Wohlmuth, PhD is a pharmacognosist with over 30 years' experience in herbal medicine. Now the Research & Development Manager for Integria Healthcare, he spent 16 years at Southern Cross University, where he established the university's Medicinal Plant Herbarium and co-founded the Herbal Authentication Service. Hans has published over 50 scientific articles on medicinal plants, natural products and complementary medicine and was a member of the Therapeutic Goods Administration's Advisory Committee on Complementary Medicines from 2010 to 2015. He is an adjunct associate professor at the University of Queensland and serves on the Advisory Board of the American Botanical Council.

Introduction: The use of DNA barcoding as a herbal authentication technique has received much attention since February 2015, when the New York Attorney General controversially forced four major retailers to cease selling a range of herbal products based on DNA barcoding results allegedly showing that 79% either did not contain the labelled herbal species or contained other non-labelled plant materials.

Methods: We assessed the validity and utility of standard DNA barcoding in the quality control of raw materials, extracts and finished products in 61 samples using four universal barcodes (matK, rbcL, trnH-psbA and ITS2). Samples were chemically profiled and marker compounds identified by UPLC-MS. Extracted target DNA was amplified by PCR and Sanger sequenced. Results were compared to sequences in GenBank using BLAST.

Results: The rate of successful amplification and sequencing varied with barcode and sample type but was low overall. Identification to species was achieved for 18% (trnH-psbA), 15% (rbcL), 5% (matK) and 0% (ITS2) across all samples. Of dried materials, 53% were correctly identified by at least one barcode. Importantly, only one extract out of 21 yielded amplifiable DNA and could be identified. In contrast, the phytochemical integrity of all samples was confirmed by UPLC-MS.

Discussion/Conclusion: The results demonstrate that DNA barcoding using universal barcode sequences, which are relatively long, is not suitable for routine authentication of raw materials, extracts or finished herbal medicinal products, most likely due to DNA degradation arising from drying and processing. The use of shorter, species-specific sequences may yield better results.

Natural exportin-1 (XPO1) inhibitors as antiviral agents against respiratory syncytial virus (RSV)

Ms Cynthia Mathew¹, Prof Reena Ghidlyal¹, Dr Andrea Bugarcic²

¹University of Canberra, Canberra, Australia, ²Endeavour College of Natural Health, Fortitude Valley, Australia

Biography:

Cynthia is a PhD student interested in molecular virology of respiratory viruses. She is currently working on an NIH funded project looking into the development of a treatment against RSV and using medicinal plants as therapeutic agents against respiratory viruses that induce asthma in infants.

Introduction: Human respiratory syncytial virus (RSV) is the major cause of respiratory tract infections in infants, young children, elderly and the immunocompromised. The matrix (M) protein of RSV is essential for the formation of infectious virus and is thus a good target for antiviral drug development. Previous work has shown that leptomycin B, a bacterial compound, is effective in inhibiting M function; however, this compound is very toxic and cannot be used in the clinic.

Focus of discussion: We aim to screen extracts of medicinal plants used in traditional medicine with similar activity to leptomycin B but with reduced toxicity in order to identify suitable antiviral drugs for RSV disease. The successful application of these XPO1 inhibitors against cancer gives support to their potential as antiviral agents. Herbal products with confirmed clinical safety features are attractive starting material for the identification of new antiviral activities.

Implications: Herbal medicines and purified natural products provide a rich resource for novel antiviral drug development. Many natural products and herbal ingredients possess robust antiviral activity and can be developed further to produce effective derivatives and therapeutic leads. As many studies in this domain are only preliminary, further exploration in characterising the bioactive ingredients, defining the underlying mechanisms, and assessing the efficacy and potential application in vivo is needed to help develop effective antiviral treatments. Identification of effective, safe, anti-RSV strategies has implications for the overall human population, especially for newborn babies and the elderly who are most at risk of serious RSV disease.

Why are mental health disorders higher in the vegetarian/vegan (veg*n) population?

Ms Candace Borg¹

¹*Northcote Natural Therapies, Northcote, Australia*

Biography:

Candace Borg is a qualified vegan naturopath, Natural Fertility Educator, and Hypnobirthing practitioner. Studying both a Bachelor of Biological Science (Biomedical Science) and Bachelor of Health Science (Naturopathy) has given Candace the unique ability to assess health from not only a medical but also a naturopathic perspective. Candace is an active member of the Mental Health Professionals Network (MHPN) and the vegan community, regularly presenting to various organisations and vegan groups on various health topics. It is Candace's goal to help those she sees reach and maintain a high level of health, without complicated or radical changes to their lifestyle.

Introduction: Australia is the third fastest growing vegan market in the world. Currently 11.2% of the population identifies as veg*n. Research has shown the prevalence of mental disorders are 15% higher in those following a veg*n diet. Much research has been done on causative factors of mental disorders; however, there hasn't been much emphasis on correlating this data to the veg*n demographic. With the veg*n population and the incidence of mental health predicted to continue to rise, it is important to not only understand what is influencing this demographic but what is contributing to their mental health.

Focus of discussion: In this presentation, we will discuss the social aspects of the veg*n demographic and how this influences not only the psychological but also the environmental causes of mental disorders. You will learn about how their diet may be influencing their health, what makes certain supplements non-veg*n and why this demographic is so strict on what their supplements contain. Being vegan for the last 4 years, I have seen the number of patients in my clinic that identify themselves as veg*n increase. Largely, this is due to other practitioners not supporting their veg*n patient (via dietary or supplement suggestions). I will discuss with you why this is and how you can support this demographic.

Implications: With the growing rate of veg*n and mental health disorders predicted to continue to rise, it is paramount that we understand the needs and wants of our patients and also have the tools to help treat them.

Mistletoe extract and lectin reduce melanoma growth through promotion of apoptosis and phagocytosis

Ms Bilquis Ara¹, Prof Reena Ghidlyal¹, Dr Luby Simson¹, Dr Gero Leneweit², Dr Christoph Heyder²

¹University of Canberra, Canberra, Australia, ²Carl Gustav Carus-Institut, Niefern-Öschelbronn, Germany

Biography:

Ms Ara graduated from Bangladesh and worked as an assistant professor at Dhaka Medical College/Shurawardee Medical College, Bangladesh. She has been working at University of Canberra for the past 4 years and is passionate about cancer immunology.

Introduction: Mistletoe (*Viscum album* Q, VA) extract and mistletoe lectin (ML) are two of the most prescribed alternative drugs for cancer in Europe. Most studies agree that they improve quality of life and survival of cancer patients, which is also associated with eosinophil infiltration at the tumour site. But the underlying molecular mechanism is far more complex and not yet fully elucidated. Effects of mistletoe therapy on immune parameters are also confounding and do not explain improved survival, quality of life in cancer patients or the presence of eosinophils at the tumour site.

Methods: Melanoma-bearing C57Bl6 mice treated with VA/ML developed the smallest tumours compared to untreated mice with reduced subcutaneous melanoma and increased eosinophil accumulation at the tumour site.

Results: The results from the animal model were validated in vitro; VA/ML showed significant growth reduction of B16F1 in vitro compared to untreated cells in a time and concentration dependent manner. B16F1 cells, co-cultured with eosinophils treated with VA/ML, showed reduced cell proliferation compared to cells co-cultured with untreated eosinophils.

Conclusion: In conclusion, results of this study suggest that mistletoe extracts reduce tumour growth and improve survival through complex, multifaceted mechanisms, including direct cytotoxicity as well as promotion of apoptosis and phagocytosis.

The role of herbal immunomodulators in chronic infections

Ms Julianne Grant¹

¹*Optimalrx / Naturopath (private), Melbourne, AUSTRALIA*

Biography:

Julianne Grant is an experienced Melbourne-based naturopathic practitioner with a special interest in the management of chronic disease, including autoimmune conditions, cancer and chronic infections. Alongside her practice, Julianne is also a researcher, technical writer and educator for leading Australian herbal medicine company, OptimalRx. Julianne has worked in the health industry for over 17 years in varied roles within hospitals, sporting associations and private practice. She is passionate about education, both of her clients and of the naturopathic profession, and invests a great deal of time researching and implementing advances in natural medicine. Julianne is a full member of NHAA.

Introduction: Clinically, we are seeing a rise in the number of patients with chronic infections, which are often responsible for the development of chronic disease. Pathogenic microbes, particularly stealth infections, have the ability to modulate the immune system and promote inflammation, which is crucial to their long-term survival within the host. These pathogens generally evade a normal human immune response via immunosuppression and other virulence factors. Research has found a strong association between infection with pathogens, such as mycoplasma and borrelia, and chronic disease due to the sequelae of events post-infection. Effective management of infections with immunomodulators is paramount to the long-term health of the patient.

Focus of discussion: Herbal immunomodulators are crucial in the treatment of chronic infections. I will discuss the importance of the host's ability to mount an effective immune response, maintain immunosurveillance, and reduce pro-inflammatory cytokine production for the long-term health of the patient. The focus entails the role of herbal immunomodulators for this purpose, and relevant phytomedicines will be discussed.

Implications: Many practitioners focus upon eradicating the infection with herbal antimicrobials, underestimating the impact of the infection on the immune system and the resulting sequelae of adverse events. Herbal immunomodulators are of prime importance in treating chronic infections, particularly when dealing with/aiming to avoid chronic disease states.

Adulteration of tea tree oil in Australia and overseas

Dr Hans Wohlmuth^{1,2}, Mr Ashley Dowell³, Mr Michael Russell³

¹*Integria Healthcare, Ballina, Australia*, ²*University of Queensland, St. Lucia, Australia*, ³*Southern Cross University, Lismore, Australia*

Biography:

Hans Wohlmuth, PhD is a pharmacognosist with over 30 years' experience in herbal medicine. Now the Research & Development Manager for Integria Healthcare, he spent 16 years at Southern Cross University, where he established the university's Medicinal Plant Herbarium and co-founded the Herbal Authentication Service. Hans has published over 50 scientific articles on medicinal plants, natural products and complementary medicine and was a member of the Therapeutic Goods Administration's Advisory Committee on Complementary Medicines from 2010 to 2015. He is an adjunct associate professor at the University of Queensland and serves on the Advisory Board of the American Botanical Council.

Introduction/Background: The quality assurance of herbal products is particularly challenging due to their chemical complexity and natural variation. Adulteration, typically economically motivated, is an ongoing challenge and a threat to the safety, effectiveness and reputation of herbal medicines. Increasingly, adulteration is so sophisticated that even official pharmacopoeial testing methods are incapable of its detection.

Methods: We analysed tea tree oils labelled as pure from the Australian and overseas markets. The analysis was done by the TGA-licensed Analytical Research Laboratory at Southern Cross University. Samples were analysed by gas chromatography (GC-FID) using the method in the *British Pharmacopoeia* (2015) monograph for tea tree oil. Additionally, samples underwent chiral GC analysis to determine enantiomeric (+/-) ratios for terpinen-4-ol, limonene and α -terpineol.

Results: Adulteration of a number of tea tree oil samples was demonstrated either by abnormal enantiomeric ratios and/or the presence of compounds that are not known to occur naturally in tea tree oil. The identity of extraneous compounds indicated that essential oils of pine, eucalyptus and basil, as well as synthetic terpinen-4-ol, are used as adulterants.

Discussion/Conclusion: The results show that adulteration of "pure" tea tree oil is not uncommon and occurs in both Australian and overseas markets. This practice is a threat to an iconic Australian natural product. Of particular concern is the fact that most adulterated oils complied with the compositional specification in the current *British Pharmacopoeia* monograph. Our study demonstrates the need for ongoing vigilance in herbal quality assurance.

Down syndrome: Naturopathic support in a research vacuum

Mrs Belinda Robson¹

¹*Goulds Natural Medicine, Hobart, Australia*

Biography:

Belinda is a Southern Cross University trained naturopath, and one of the collective who operates Goulds Natural Medicine, a 136-year-old apothecary & clinic in central Hobart. Belinda is currently undertaking a Master of Health Science in Developmental Disability through the University of Sydney. Through her studies, Belinda aims to broaden her knowledge of core issues that affect the lives of children and adults with disability, and improve access to natural healthcare for people with disabilities and their families. This area of study encompasses all stages and transitions of life from a disability perspective. Belinda hopes to combine this knowledge with her natural medicine degree to improve support for people living with disability.

Introduction: Over the last two decades, the majority of Down syndrome research has been directed towards improving early pregnancy detection rates, with very high rates of termination. With an increased shift towards mothers starting families later in life, this technology has prevented a potential Down syndrome boom within our current cohort of children.

Focus of discussion: Vast improvements have also been made with corrective cardiac surgery, which in itself has dramatically improved lifespan and health outcomes for children and adults with Down syndrome. Meanwhile, little research attention has been focused on nutritional and herbal support for the multitude of health conditions people with Down syndrome face throughout their life span. It is well documented that they respond in unusual ways to medications, and experience increased adverse events. What then, is the role of the evidence-based natural therapist, with a sparsity of research to support clinical decisions, in a complex multisystemic health condition? While medical advances have had a profound impact, a research vacuum exists for nutritional and herbal support.

Implications: This presentation will explore the ways in which natural therapists can integrate with other health care modalities, and the valuable role we have in an otherwise challenging area of healthcare.

Systematic literature review on medicinal cannabis for cancer

Ms Danielle Brown¹, Dr Janet Schloss¹, Dr Amie Steel¹

¹*Endeavour College Of Natural Health College, Fortitude Valley, Australia*

Biography:

Ms Brown is a recent graduate of Endeavour College of Natural Health in Perth with a Bachelor of Health Science in Naturopathy. She has completed this research through her involvement in the Endeavour College of Natural Health Student Summer Research Program. The summer research project included a systematic literature review on medicinal cannabis for cancer through January and February 2017. This was conducted at the Endeavour College Office of Research in Brisbane under the supervision of Dr Janet Schloss, Dr Amie Steel and Rebecca Reid.

Introduction: Medicinal cannabis (*Cannabis sativa*) in relation to cancer has been brought to the forefront recently due to changes to Australian government regulations regarding its use. The potential benefits of medicinal cannabis (MC) for cancer symptom relief has been subject to a number of government reviews in addition to public debate in recent years. Currently, government documents acknowledge evidence for MC for individuals with cancer in the management of nausea and vomiting, as adjunctive analgesic for severe pain, and as an appetite stimulant. However, to date, there is no systematic review, which comprehensively examines the current research regarding medicinal cannabis in all cancers and cancer-related symptoms.

Methods: A systematic review evaluating the evidence on medicinal cannabis research for the treatment and management of cancer on humans, animals and in vitro has been conducted. The databases used included PubMed, Scopus, EMBASE, Cochrane and AMED. Inclusion criteria included any original research on cannabis and cancer. All manuscripts were filtered and assessed for bias.

Results: Medicinal cannabis shows promise in assisting patients with cancer on various fronts. Trials have confirmed benefits for nausea and vomiting, pain and appetite simulation, in addition to potential cancer shrinkage, reduction of seizure activity and sleep assistance.

Discussion/Conclusion: This review indicates that further clinical trials are required to ascertain the benefits of medicinal cannabis as well as the dosage, timing, potential interactions and targeted population most appropriate for this exciting new herbal medicine.

Can herbs and phytonutrients play a credible role in the prevention of cancer?

Prof Kerry Bone¹

¹*Mediherb, Warwick, 4370*

Biography:

Professor Kerry Bone is co-founder and director of R&D at MediHerb and an adjunct professor at New York Chiropractic College. He is co-author of more than 30 scientific papers on herbal research and currently the only Australian member of the editorial board of the journal, Phytomedicine. Kerry has written six popular, award-winning textbooks on herbal medicine, including his latest with Simon Mills, the second edition of Principles and Practice of Phytotherapy. He maintains a busy practice in Toowoomba, Queensland since 1985. In 2015 Kerry's lifelong contribution to the field of herbal medicine was recognised by the Lady Cilento Award.

Introduction: It is now recognised that diet and lifestyle are major contributors to cancer risk. But the value of herbs remains controversial, even for those that have been widely studied as part of the human diet, such as green tea. We need a better understanding of the role that herbs and phytonutrients might play in the prevention of cancer.

Focus of discussion: In this presentation, both a mechanistic approach and an outcomes evaluation will be utilised. The mechanistic approach will examine the latest research on the key steps involved in tumour development and define critical points of intervention for herbs and phytonutrients by establishing at least seven major pharmacological objectives. Relevant to this, the various factors involved in initiation, promotion, malignant conversion and progression will be reviewed in the context of phytochemical intervention.

The outcomes angle will look at well-designed studies that have demonstrated positive results for mitigation of cancer risk. Any consistency between the two approaches will be emphasised as having a good degree of credibility.

Implications: The findings of this analysis go beyond the prevention of cancer in healthy people. They are also relevant to secondary prevention, such as preventing a tumour recurrence once it has been treated by conventional means.

Thriving after cancer: How to support a patient with or after cancer

Dr Janet Schloss¹

¹Endeavour College of Natural Health, Fortitude Valley, Australia

Biography:

Janet has been in private practice as a nutritionist for over 17 years and has just completed her doctorate at the School of Medicine in the University of Queensland through the Princess Alexandra Hospital. She has also lectured at Endeavour College of Natural Health for over 11 years and is now a senior research officer in surveys and statistics with the Office of Research at Endeavour. Janet mainly specialises in people who have cancer, especially assisting patients undergoing medical treatment. The main aim is to assist people through treatment, decreasing side effects and supporting them through diet and lifestyle after treatment. Janet has long been involved in research regarding cancer and nutrition, particularly for individuals going through chemotherapy. Janet has a number of publications and has a particular interest in research on complementary medicines to assist side effects from chemotherapy and radiation.

Introduction: Cancer is a leading cause of death in Australia with Australia and New Zealand recording the highest incidence of cancer worldwide in 2015/16. However, advancements in early detection, diagnosis and treatment of cancer has meant that the survival rates for the majority of cancers have increased significantly in the last 30 years. The term 'cancer survivorship' is now popular amongst organisations, hospitals and researchers within the field of oncology.

Focus of discussion: Education on how to assist people who have been diagnosed with cancer should not involve producing further 'fear' in the person, but instilling 'hope' and 'enjoyment of life'. A recent study published in January 2016 released its findings from in-depth interviews conducted on lung cancer patient survivors. Their results displayed emergent themes that included patients 'feeling blamed for having caused their cancer', being stigmatised as 'throwaways', and that long-term survivors are experiencing comments from people that they are surprised that they are still alive.

Implication: Education to health professionals on how allied and complementary medicine can assist cancer patients in addition to how to support people who have had or have cancer still needs to be developed and implemented. Medically, 'survivorship care' is considered one of the most challenging problems oncologists face today and in the near future. Working together for the best treatment and management of the patient is the cornerstone of the future for thriving after cancer. Guidelines for supporting people after or with cancer are discussed.

An Integrative holistic approach to cancer

Mrs Jennifer Webster¹

¹*Traditional Herbal Remedies Pty Ltd, Engadine, Australia*

Biography:

Jennifer is an experienced clinical practitioner and the founder of Traditional Herbal Remedies, a busy holistic family clinic. She commenced her own practice in 2002 and on average contributes 30hrs in direct consultations per week. Trained as a classical herbal medicine practitioner, she subsequently completed her BHsc in 2005 and kinesiology training in 2008. A challenging and complex family history with cancer led her to complete postgraduate studies in supportive care medicine in 2005. Jennifer also completed her yoga instructors training, continuing the firm belief of healing the mind body and spirit. In 2007 Jennifer established a wellness centre in southern Sydney to cater for a growing need.

Research interests include the development of individualised treatment protocols for clients requiring targeted therapies for complex diagnosis. She is the Mother of four boys and has 2 grand children. A shock rare Cancer diagnosis in 2014 of one of her sons, has been a catalyst to seek the best possible treatment options and solutions for those suffering rare disease.

Introduction: In 2016 the population of Australia reached 24,546,000. A total of 130,466 new cancer diagnoses were made and, of these, 32% will be less-than-common cancers. At any given stage, approximately 2% of the Australian population is living with a cancer diagnosis.

Case summary: A 24-year-old Australian male was living overseas when he was diagnosed with an extremely rare cancer, which affects fewer than 1 in 100,000,000 people. Within 12 months, the cancer had spread to his lungs, spine, neck, femur, pelvis and back, and was described by his oncologist as “uncontrolled”. Subsequent to domestic research, specialist opinion was sought overseas to augment an already supportive integrative regime. The combined treatment program consisted of individualised targeted therapies, herbal formulations that were prescribed to improve strength and tolerance to treatments, and herbs used to fight cancer. Nutraceuticals, diet, and an emergent, fluctuating and sustainable program was used to deal with day-to-day problems and improve wellbeing. The extensive treatment methodology of this program, that was successful in this case, will be discussed.

Outcomes: The current prognosis has substantially improved.

Implications: This case highlights the potential merit of taking professionally prescribed vitamins, minerals and herbal medicines alongside conventional cancer treatment. In this case, it improved the outcome for the patient and increased his quality of life.

An overview of the use of natural compounds to reduce drug resistance in conventional cancer therapy: the role of polysaccharide krestin (PSK)

Ms Manuela Boyle^{1,2}

¹Cassia Wellness Clinic; ²University of New England, Brisbane, Australia

Biography:

Manuela Boyle MPhil, MHSc; consultant clinician of Integrative Medicine – Oncology Australia and Italy; published author and peer reviewer; consultant mentor to MDs, NDs and DOs on best practices, patient safety and evidence-based research; keynote speaker/guest speaker – Integrative Medicine: Australia, Paris, Barcelona, Stuttgart, Singapore, United States, Sri Lanka, Dubai; guest appearance in the documentary series "The Truth about Cancer – the Global Quest" (2015); external expert: European Centre of Health Disease & Control in association with WHO – Stockholm; consultant at Gwinganna Health Retreat, Queensland, Australia.

Background: Cancer cells are better able to adapt to stress than normal cells. In cancer treatment, this adaptation results in tumour cells that develop cancer resistance to chemotherapy drugs. This event is usually the primary obstacle to successful treatment. Finding themselves in a state of high alert, cancer cells have the ability to express resistance not only to drugs they have been exposed to, but to any other noxious agent. Multi-drug resistance is a protection mechanism that can lead to failure of the conventional cancer treatment. Research shows that natural compounds can reverse drug resistance by inhibition of P-glycoprotein, inhibition of glutathione S-transferase drug detoxification system and inhibition of heat-shock proteins. There is ample evidence suggesting that natural compounds can produce cytotoxic effects in cancer cell through a number of mechanisms and that, when they are combined with chemotherapy drugs, these effects are often additive or synergistic.

Methods: A review of randomised controlled trials of the mechanisms by which cancer cells, exposed to chemotherapy, have the ability to devise strategies for resistance and survival. Researched EBSCO, MedLine, and PubMed from 1992 to 2012 to retrieve suitable articles. Five double blind placebo controlled clinical human and animal studies were reviewed.

Results: All the control studies conducted in large multi-centre trials confirmed improvement in patient survival on a dose of 3 grams of PSK per day orally unless noted. Key findings are as follows: Two hundred and sixty-two postoperative stomach cancer patients were randomised to receive chemotherapy or chemotherapy and PSK. The addition of PSK increased the five-year disease-free rate (from 59% to 71%) and the five-year survival rate (from 60% to 73%). Four hundred and sixty-two patients with curatively resected colon cancer were randomised to receive chemotherapy or chemotherapy plus PSK. The latter combination increased the eight-year disease free rate (from about 7.8% to 28 %) and the ten-year survival rate (from 19% to 36%). Two hundred and seventy-eight patients with stage II aT2N1 oestrogen-dependent breast cancer were randomised to receive chemotherapy or chemotherapy plus PSK. The

administration of PSK increased the five-year survival rate (from 81% to 96%). Disease-free survival also increased. Thirty-eight patients with nasopharynx cancer who were treated with radiotherapy, with or without chemotherapy, were randomised to receive PSK or no PSK. The addition of PSK increased survival rate (from 15 to 35 months). The PSK dose was 1 gram per day orally. These results demonstrate that polysaccharide-K (PSK) has potent anti-tumour effects.

Conclusion: Specific natural compounds show anti-cancer potential in combination with conventional therapies.

Embedding critical thinking skills into complementary medicine curriculum: Development of a framework to support critical inquiry in complementary medicine education programs

Dr Andrea Bugarcic¹, Dr A Steel^{1,2}, Dr M Rangitakatu¹

¹Endeavour College of Natural Health, Australia, ²University of Technology Sydney, Ultimo, Australia

Biography:

Dr Andrea Bugarcic is affiliated with the Bioscience Department at Endeavour College of Natural Health. Dr Bugarcic has completed a PhD in virology and has extensive experience in cellular biology in the context of disease and infection.

Introduction: Complementary and integrative medicine practitioners face unique challenges as they need to draw upon both traditional and modern information sources to inform clinical decision-making.

Focus of discussion: However, traditional sources can be difficult to question while modern sources require an advanced level of scientific methodology and method understanding that is not discussed within current complementary medicine educational programs. Furthermore, self-reflection, a metacognitive process of self-regulated and lifelong learning that creates a deep understanding of both self and the specific situation to inform the required clinical actions, has recently been emphasised as an important objective of medical education and defined as an integral part of critical inquiry and development of professional expertise and identity. Therefore, complementary medicine undergraduate curriculum needs to develop critical inquiry and practitioner competence by incorporating both available information sources and allow for development of self-reflection skills.

Implications: Current study describes an evolving educational framework of progressive skill development within an undergraduate theoretical and practical complementary medicine curriculum that is based on current professional landscape and supports students in developing critical thinking and self-reflexivity through a series of integrated in-class activities and specially-designed assessment tasks.

The necessity of including comprehensive psychotherapy within naturopathy and herbal degrees

Ms Randa Karzon¹

¹*Diamond Health Natural Therapies, Upper Coomera, Australia*

Biography:

Randa Karzon is a naturopath, holistic counsellor and medical intuitive practitioner with 15 years' experience. She completed a Bachelor of Health Science in Naturopathy then established clinical practice while simultaneously undergoing postgraduate qualifications in Evidence-Based Medicine Research and Practice at University of Queensland & Southern Cross University, and is currently completing further study in counselling. As a lecturer and clinician, she incorporates science, traditional medicine and her own traditional cultural knowledge to provide comprehensive and holistic health understandings, including mind, body, emotions and spirituality. Randa's holistic approach integrates sound scientific evidence with an awareness of the link between mind, body and spirit.

Introduction: Counselling skills and psychotherapy within naturopathy provide a valuable and unique skill for both the health practitioner and the client. Practitioners need to be appropriately trained in psychotherapy as it assists in improving the quality of the therapeutic relationship and thereby significantly influencing the outcomes of the naturopathic consultation. However, current training may not provide students with the skills needed to be effective in this area.

Focus of discussion: The discussion is to emphasise the effectiveness of the 'talking cure'. Initially, we will identify the gaps from both a lecturer's and clinical supervisor's perspective, with concerns of the impact of these gaps for graduating students. This will be followed by a discussion of the potential value of integrating psychotherapy within naturopathic training, and conclude with highlighting the challenges in the consensus, application and overall response from educators.

Implications: It is imperative for naturopaths to adhere to and implement holistic principles. In order to treat holistically, more attention is needed to the training of naturopaths to include the skills of psychotherapy.

A proposal for an academic philosophy culture

Dr Jeff Flatt

Biography:

Jeff Flatt ND PhD has experience in the practice, education and research of naturopathic and Western herbal medicine. He has recently received his doctorate where his research focus was the intersection of philosophy and evidence for practicing clinicians. Jeff's presentations will discuss the findings of this research, where he hopes to challenge and inspire in equal measure. Jeff is currently a board director of NHAA.

Background: The philosophical basis of complementary medicine practice is a well-known aspect of practitioner identity. The premises underlying the Western tradition of this philosophy have their origins in Aristotle's *Metaphysics* and his theory of final causes. For a variety of reasons there are increasingly strong critiques that call for greater clarity of the philosophical premises underlying the public healthcare delivery of complementary medicine.

Methods: Western philosophical analysis was applied within a critical literature review as a way to establish the conceptual characteristics of the complementary medicine field. Findings were compared to the thematic and discourse analysis outcomes of focus groups and interviews with 44 naturopathic and Western herbal medicine practitioners. Similarities and differences were assessed against the academic philosophy literature.

Results: Philosophical premises are naively explained by the literature and practitioners compared to academic Western philosophy, most particularly philosophy of medicine. This insufficient clarification of core clinical concepts contributes to difficulties in grounding complementary medicine philosophy within an academic context.

Discussion: The philosophical basis of complementary medicine is not well articulated in the literature or by practitioners, which contributes to vagueness, slippery notions, and susceptibility to devastating critique. This is problematic for the professions, particularly for validation of concepts of causality, rationale for action derived from clinical reasoning, and choice of knowledges applied in practice. This leads to the proposal for the cultural innovation of complementary medicine academic philosophy within education and practice.

Postgraduate research education in CM and the need for extensive and well-rounded education and training to influence contemporary health research

Ms Helene Diezel^{1,2}, Dr Amie Steel^{1,2}

¹Endeavour College of Natural Health, Brisbane, Australia, ²Australian Research Centre in Complementary and Integrative Medicine, University of Technology Sydney, Australia

Biography:

Ms Helene Diezel: Helene has 9 years' experience as an educator across all levels of course planning, design and development as well as experience in both qualitative and quantitative research. She is currently Senior Lecturer for Endeavour College of Natural Health's nationally offered Honours Degree and has assisted in the design and implementation of the fully online Honours, lending her considerable expertise to developing Honours course content which is enriched and engaging for students from complementary medicine disciplines. Helene's undergraduate training is in social sciences with postgraduate qualifications in education and she is currently finalising a Master of Health Services (research).

Introduction: The demonstrated high use of complementary medicine (CM) health services has lead commentators to highlight the apparent lack of research evidence to support the use of CM. Peer-reviewed literature has outlined the need for research capacity in CM to begin addressing the gap in practitioner driven and practice-informed research that articulates into all levels of the health hierarchy of evidence and contemporary healthcare.

Focus of discussion: Extensive, well-rounded postgraduate research education and training enables apprentice researchers originating from CM to more appropriately influence the direction of health research. A capstone postgraduate Honours Degree research year has been offered at the largest complementary medicine education institution in Australia, Endeavour College of Natural Health, to disciplines including naturopathy. The first cohort is approaching completion and there are many beneficial outcomes that can be gleaned from this type of Honours Degree in complementary medicine for practitioners and the research that underpins their practice. This degree's design intensively prepares and overcomes certain challenges associated with practice-based professions and unique evolution of CM and naturopathic education in Australia, thus far producing competitive and competent apprentice researchers who will likely lead the development of practice-informed research in CM in coming years.

Implications: The cutting-edge design and delivery of this postgraduate research Honours Degree is producing exciting results for the CM health field and practice-informed research that the Australian CM community will benefit from and should be informed about.

Phytochemical investigations of jiaogulan (*Gynostemma pentaphyllum*), a traditional Asian medicinal plant with anti-obesity activity

Dr Hans Wohlmut^{1,2}, Dr David Leach^{1,3}, Dr Iftekhar Ahmed², Prof James De Voss², Prof Kerry Bone¹

¹Integria Healthcare, Ballina, Australia, ²University of Queensland, St. Lucia, Australia, ³Western Sydney University, Campbelltown, Australia

Biography:

Hans Wohlmut, PhD is a pharmacognosist with over 30 years' experience in herbal medicine. Now the Research & Development Manager for Integria Healthcare, he spent 16 years at Southern Cross University, where he established the university's Medicinal Plant Herbarium and co-founded the Herbal Authentication Service. Hans has published over 50 scientific articles on medicinal plants, natural products and complementary medicine and was a member of the Therapeutic Goods Administration's Advisory Committee on Complementary Medicines from 2010 to 2015. He is an adjunct associate professor at the University of Queensland and serves on the Advisory Board of the American Botanical Council.

Introduction: Jiaogulan (*Gynostemma pentaphyllum*) is a traditional Asian herb with a range of biological activities. Of particular interest is its anti-obesity effects demonstrated in animals and a human clinical trial, possibly mediated by activation of AMP-activated protein kinase. More than 165 saponins and some 25 flavonoids have been identified from this herb. Based on *in vitro* data, putative active compounds include the damulins, which can form from heat treatment via hydrolysis of precursors. *Gynostemma pentaphyllum* was recently approved by the Therapeutics Goods Administration for use in listed medicines. Since no official monograph exists for this herb, we undertook phytochemical investigations for the development of quality standards.

Methods: Saponins and flavonoids were isolated by solid phase extraction and preparative HPLC and characterised by mass spectrometry and NMR. Hydrolyses were performed using Simulated Gastric Fluid at 37°C (USP) as well as complete hydrolysis in hydrochloric acid at 100°C.

Results: Gypenosides LVI and XLVI, two major saponins of *G. pentaphyllum*, were confirmed as precursors of damulins A and B and two related gypenosides. Treatment with simulated gastric fluid caused the formation of damulins and thus had similar effect to high temperature treatment. The flavonoid profile provided a characteristic fingerprint for authentication of raw herb and extracts.

Discussion/Conclusion: Precursor saponins are likely hydrolysed in the stomach to form damulins with activity on AMP-activated protein kinase. Hydrolysis in the digestive tract may render redundant heat treatment employed in the manufacture of some proprietary extracts. Quality specifications for pharmaceutical *G. pentaphyllum* should include both saponins and flavonoids.

Turmeric and the role of inflammation in managing depression: a randomised, double-blind, placebo-controlled trial

Mr Laurence Katsaras¹, Mrs Kari Steele¹, Dr Adrian Lopresti²

¹Health World Ltd, Brisbane, Australia, ²Murdoch University, Perth, Australia

Biography:

Laurence Katsaras is a medical herbalist and naturopath with a passion for merging the traditional understanding and philosophy of naturopathy with modern validated research. Laurence currently works as the Technical Support Manager at Health World and has many years of experience in research and education alongside his years in clinical practice. He has a special interest in the treatment of mood and stress-related disorders, and helping people achieve better mental health through holistic treatments. Laurence's presentations are an inspiring blend of technical knowledge and practical clinical application.

Introduction: It is now well-accepted that depression is associated with increased inflammation. Turmeric is a natural anti-inflammatory herb with demonstrated efficacy in the reduction of inflammatory markers up-regulated in depression. The Health World Ltd Clinical Research Program supports innovative research into the use of effective natural medicines within Australia and New Zealand. The highlighted trial investigated the use of BCM-95[®] turmeric as a novel treatment strategy for depression. BCM-95[®] turmeric is a proprietary whole turmeric extract that enhances bioavailability by 700%, and is exclusive to Health World Ltd in Australia and New Zealand.

Methods: In a recent randomised, double-blind, placebo-controlled study supported by Health World Ltd, 56 individuals with major depressive disorder were treated with BCM-95[®] turmeric (25g turmeric per day) or placebo for eight weeks.

Results: Statistically significant improvements in mood were seen in the treatment group after four and eight weeks.

Discussion/Conclusions: While much is gained from traditional knowledge of herbal medicines, scientific research offers additional contributions including investigating novel mechanisms, as seen in this study. With approximately one third of patients with depression unresponsive to conventional antidepressant therapies, this is a critical area of research. BCM-95[®] turmeric, through its actions in attenuating inflammation, is an effective treatment for the management of major depression.

Pyrrolizidine alkaloids in herbal medicines – re-emergence of an old threat?

Dr Hans Wohlmuth^{1,2}, Dr David Leach^{1,3}, Prof Kerry Bone¹

¹*Integria Healthcare*, ²*University of Queensland, St. Lucia, Australia*, ³*Western Sydney University, Campbelltown, Australia*

Biography:

Hans Wohlmuth, PhD is a pharmacognosist with over 30 years' experience in herbal medicine. Now the Research & Development Manager for Integria Healthcare, he spent 16 years at Southern Cross University, where he established the university's Medicinal Plant Herbarium and co-founded the Herbal Authentication Service. Hans has published over 50 scientific articles on medicinal plants, natural products and complementary medicine and was a member of the Therapeutic Goods Administration's Advisory Committee on Complementary Medicines from 2010 to 2015. He is an adjunct associate professor at the University of Queensland and serves on the Advisory Board of the American Botanical Council.

Introduction: Unsaturated pyrrolizidine alkaloids have long been considered hepatotoxic and potentially carcinogenic, and herbs containing them are banned from use in Australia. Recent data emerging from Europe suggest that pyrrolizidine alkaloids may yet again present themselves as a challenge in herbal medicine – this time in the form of accidentally harvested pyrrolizidine alkaloid-containing weeds contaminating herbal raw materials.

Focus of discussion: This presentation will provide background information about pyrrolizidine alkaloids, their toxicity and occurrence in plants, in particular traditional medicinal plants. Limits imposed in different jurisdictions will be reviewed, as will recent data highlighting the potential challenges faced by manufacturers and sponsors of herbal medicines. Original analytical data will also be presented.

Implications: The Committee on Herbal Medicinal Products of the European Medicines Agency recommended in 2014 that pyrrolizidine alkaloid intake from herbal medicinal products be limited to 0.35 microgram/day, and several European countries are now transitioning towards the adoption of this limit. This exceedingly low limit was reached by using established margin of exposure calculations for genotoxic carcinogens in food. The implications for herbal medicines are potentially serious, illustrated by the fact that a few pyrrolizidine alkaloid-containing weeds in a field of herbs could be sufficient to bring a product made from such raw material over the limit. The low limit also presents analytical challenges, which are amplified by the fact that more than 500 different pyrrolizidine alkaloids exist in plants. Strategies for mitigating the threat to herbal medicines posed by pyrrolizidine alkaloid contamination will be discussed.

The role of complementary therapists in breast cancer: an integrative adjunctive care model

Ms Keonie Moore¹, Mrs Eve Francis¹, Mrs Shannon Carlin¹

¹Remed Natural Medicine Clinic, Lower Plenty, Australia

Biography:

Keonie Moore: Keonie is an experienced presenter and was keynote speaker at the 2nd International Endocrinology Conference, Chicago 2014, where she presented alongside the deputy editor of the British Medical Journal. Keonie has since been invited as keynote speaker for the Global Dieticians and Nutritionists Annual Conference, Philadelphia, December 2016 on the role of vitamin E in gliomas. Keonie is a highly sought-after practitioner in autoimmune disorders and oncology and has been in clinical practice for 10 years. She leads a team of 18 practitioners and 10 staff in a multi-modality clinic that exemplifies assimilation of research findings into clinical practice.

Eve Francis: Eve approaches oncology support from a science background, backed up with years of hands-on experience in massage. In 2012, this led her to specialise in oncology massage and she went on to complete advanced training through the Olivia-Newton John Wellness Centre at the Austin Hospital. She is currently one of only 30 Level 4 oncology massage therapists in Australia. Eve is passionate about raising the awareness of the benefits of oncology massage. Many people think of massage as a treat but for people with a serious illness like cancer, it can be a powerful component of their health management.

Shannon Carlin: Shannon's interest in adjunctive oncology care started when her mother was diagnosed with multiple myeloma. She was given the devastating prognosis of 18 months to live, yet 20 years later her cancer remains in a manageable state after combining naturopathy, diet and nutrition to support her conventional treatments. Working closely with Keonie Moore, Shannon has been at the forefront in developing a treatment program for oncology patients to support conventional medical care with complementary medicine. The program aims to reduce the side effects of conventional treatments, improve both quality of life and help support remission.

Introduction: Complementary and alternative medicine (CAM) is used widely by cancer patients, but research suggests that there is poor disclosure of its use to oncologists. With the internet having been identified as a major source of information, self-prescribing CAM is a common practice in cancer patients with little understanding of potential interactions and detrimental impact on conventional oncology treatments.

Focus of discussion: The presenters will use case studies to highlight an adjunctive care model including naturopathy, oncology massage and acupuncture where co-management ensured optimal client outcomes through successfully returning patients to their conventional treatments. Delays and cessation of therapy commonly occur during breast cancer treatments

due to a variety of factors, including low white cell count, chemotherapy-induced neuropathies and self-cessation due to severe side effects. Strategies on how to reduce side effects of conventional treatments, safe administration of CAM and how to increase positive interactions by sensitising cancer cells to chemotherapy and radiation therapy will be discussed. **Implications:** Case studies of women undergoing conventional treatment for breast cancer will be used to highlight the assimilation of research findings and evidence into clinical practice with a strong focus on safe administration of CAM, reducing side effects to assist patients completing their recommended conventional treatments and long-term clinical outcomes. Assimilation of these aspects creates a platform for the increased inclusion of complementary therapy in oncology health care in a bid to increase the awareness of the safe use of CAM.

Collaboration in oncology: how the medical fraternity and complementary medicine can best work together the benefit of the patient

Dr Janet Schloss¹, Dr Maree Colosimo², Mrs Leonie Young³

¹Endeavour College of Natural Health, Fortitude Valley, Australia, ²Medical Oncology Group of Australia, Clinical Oncology Society of Australia, Queensland Clinical Oncology Group, Brisbane, Australia, ³The Wesley Hospital Choices Cancer Care Program, Auchenflower, Australia

Biography:

Dr Janet Schloss: Dr Schloss has been in private practice as a nutritionist and naturopath for over 17 years and has just completed her doctorate at the School of Medicine at the University of Queensland through the Princess Alexandra Hospital. She has also lectured at the Endeavour College formerly for over 11 years and is now a senior research officer in surveys and statistics with the Office of Research at Endeavour. Janet's main specialty is with people who have cancer, especially assisting patients undergoing medical treatment. She has a number of publications and book chapters in addition to her private work with cancer patients.

Dr Maree Colosimo: Dr Colosimo is a medical oncologist who has been working in multiple hospitals throughout Brisbane, Australia for over 20 years. Maree has both a private practice specialising in breast cancer at the Mater Private Breast Cancer Clinic and the Holy Spirit Hospital, in addition to working in the public oncology setting at the Princess Alexandra Hospital. Maree has a special interest in survivorship and collaboration with health professionals for her patients.

Leonie Young: Leonie was diagnosed with breast cancer in 1987. Since her diagnosis, she has been involved with many aspects of cancer advocacy and support with both national and international cancer organisations. Currently, she is a member of the consumer advisory groups of the Australia & New Zealand Breast Cancer Trials Group (Chair) and the National Breast Cancer Foundation. She is also Chair of the Cancer Trials Consumer Network, a network for consumers who specifically work with cancer clinical trials groups and of CanSpeak Queensland, a voice for people affected by cancer in Queensland. Since her diagnosis, she has been a Cancer Connect volunteer with Cancer Council Queensland. Leonie is the Peer Support Coordinator for the Wesley Hospital Choices Cancer Support Centre in Brisbane, which offers support and information to people affected by cancer.

Introduction: In 2016, 130,466 people in Australia (N=72,048 males and N=58,418 females) were diagnosed as new cancer cases with a survival rate of 67%. Assisting patients who are diagnosed with cancer through their treatment and post-treatment is a key element for the patient's mortality and quality of life. Complementary medicine (CM), although viewed with some scepticism by various medical and scientific communities, is used by over 50% of Australians. Using a holistic approach to cancer care has been proven to be an effective adjuvant

to conventional medical treatments; however, how to integrate these collaborations is the challenge.

Focus of discussion: CM is a diverse group of medical and health professionals that are not presently considered part of conventional medicine in a hospital setting. People who have cancer choose CM for many reasons: for symptomatic relief, quality of life, values and beliefs, or because they believe CM can fight cancer or boost their immune system. The focus of this discussion is on the collaboration of conventional medicine and CM practitioners. This means the bringing together of practitioners from multiple disciplines who are focused on the care of patients with cancer and post treatment.

Implications: This discussion panel will assist CM practitioners on how to collaborate with oncology specialists in an Australian setting. The emergence of CM for consumer health care has brought about significant medical, ethical and economic implications and impacts; thus, educating both medical and CM practitioners on how to work together for 'best practice' for patients is a very important aspect of health care.

Using psychometric assessment tools in the clinical management of mental health

Dr Stuart Glastonbury¹, Dr Erica McIntyre²

¹Private practice, NSW, Australia, ² Charles Sturt University, Bathurst, Australia.

Biography:

Dr Erica McIntyre: Dr McIntyre is a postdoctoral researcher in the School of Psychology, Charles Sturt University. Erica is also a Western herbalist with clinical experience in managing mental health, and has also worked in the mental health sector. Her primary research interest is complementary and integrative medicine and mental health, and she has published peer-reviewed articles and text book chapters in this area. Erica is a committee member of the Psychology and Complementary Therapies Interest Group of the Australian Psychological Society, and a Fellow of the Naturopathy Leadership in Research Program at ACCRIM, University of Technology.

Dr Stuart Glastonbury: Dr Glastonbury is an integrative GP and Fellow of the NHAA working in private clinical practice in North NSW. Although being a generalist, he has an interest in acute and chronic mental health concerns and sees a high percentage of these presentations. He utilises a mixture of orthodox medicine with herbal and nutritional medicine to optimise outcomes for patients and regularly coordinates care with allied health providers. Until recently he was an executive and vice president on the board of the NHAA and remains engaged with herbal medicine practice in Australia.

Background: Common mental health disorders are prevalent in the Australian community, and people with depression and anxiety symptoms are accessing the services of naturopaths and herbalists to treat their symptoms. However, naturopaths and herbalists do not necessarily have training in managing mental health, which includes the use of validated, reliable psychometric assessments. These clinical tools are critical for enabling practitioners to reliably establish the severity of mental health symptoms, monitor treatment outcomes, communicate with other health practitioners, and publish case studies.

Workshop topic: The presenters will draw on their clinical experience with using psychometric tools to manage mental health to facilitate an interactive workshop. The workshop will provide an overview of psychometric assessment and its relevance to herbalists and naturopaths in clinical practice, and discuss how to choose suitable assessment tools. Two commonly used valid and reliable scales—the Depression, Anxiety, and Stress Scale (DASS), and the Kessler Psychological Distress Scale (K10)—will be introduced to participants, and training provided in scoring and interpretation of these scales.

Learning objectives: The workshop will provide participants with the skills to: identify suitable psychometric tools for clinical practice, score and interpret the DASS and the K10, and

to use these tools effectively to enhance and target herbal treatment and monitor patient outcomes.

Implications: Practitioners will be provided with the skills needed to confidently incorporate the use of psychometric assessment tools into their practice and enhance clinical decision making and patient outcomes.

Broadening our appreciation of medicinal plants: storytelling in a time of science

Dr Sue Evans^{1,2}, Dr Cathy Avila²

¹*University Of Tasmania, Hobart, Australia,* ²*Southern Cross University, Lismore, Australia*

Biography:

Dr Sue Evans: Since finishing herbal training at the UK School of Herbal Medicine in 1982, Sue has participated in shaping and documenting changes in Australian herbal medicine through various roles, including clinician, educator and researcher. Her sociocultural PhD recounts Australian Western Herbal Medicine. Over the years, she has explored the interface between herbal medicine and history, philosophy, public health, politics and international development. She has explored medicinal plant use in diverse cultures, exposing 'story' as a vehicle for transmitting and keeping knowledge alive. Sue's experiences have underscored the equal importance of herbalists maintaining and using traditional plus scientific understandings. In Melbourne, she is a senior lecturer in complementary medicine at University of Tasmania.

Introduction: The tradition of Western herbal medicine (WHM) is grounded in philosophical approaches that include humoral medicine and physiomedicalism, as well as in folk medicine. This tradition is embedded in our broader cultural understandings of the natural world: understandings that are reflected in the arts – literature, poetry, song and the visual arts, as well as in stories. WHM has been reinvigorated recently through the incorporation of science and by the introduction of herbs from other traditions (particularly China and India). Where has this left the strands that make up Western herbal tradition? Described as “knotted, tangled and almost broken”, the role of this deep-rooted, more subtle, cultural connection to the plants we use receives little contemporary focus.

Topic: Participants will work with stories as a method of evolving time-honoured cultural understandings of medicinal plants. They will build on existing stories and contribute to the development of stronger connection between the plants, themselves and their patients.

Learning objectives: Developing an understanding of the role of the arts in general and storytelling in particular to reinforce our connection to the plant world; contributing to the ongoing invention of tradition as today's stories are linked to and build on the stories of yesterday; recognising the potential which arises from using both science and stories within the therapeutic encounter.

Implications: The implications of this workshop are twofold. Firstly, it contributes to the ongoing reinterpretation of traditional understandings of herbal medicine in ways that are relevant to the 21st century. Secondly it encourages practitioners to develop a relationship with the live plant that goes beyond a rational understanding through engaging their senses and imagination.

The effects of environmental hazards on cardiovascular disease: clinical implications

Mrs Dwan Vilcins^{1,2}

¹Endeavour College of Natural Health, Brisbane, Australia, ²The University of Queensland, Herston, Australia

Biography:

Dwan Vilcins is a bachelor-qualified naturopath and nutritionist. She currently works as a research academic with the Endeavour College of Natural Health. Dwan holds a Master of Public Health, and it is through this that she discovered her specialty area of environmental health. Dwan is currently exploring how environmental hazards affect the health of babies in Queensland as a PhD candidate at the University of Queensland.

Introduction: Cardiovascular disease remains a priority health area in developed nations, despite good knowledge around the individual factors that contribute to its development. Currently, cardiovascular diseases are responsible for up to 31% of deaths worldwide. While complementary therapists are well versed in treating the individual factors that lead to heart disease, they have a limited understanding of the role environment plays as a causative factor.

Focus of discussion: This presentation will provide an overview of the impact of harmful environments on the cardiovascular system, and explore the main hazards associated with cardiovascular disease. An explanation of how the hazard is present in the environment, and the mechanism by which it harms human health, will be discussed. Lastly, novel clinical recommendations will be explored.

Implications: Complementary therapists are uniquely placed to offer treatments and lifestyle advice to mitigate the harms from environmental hazards. This session aims to empower therapists with knowledge of common environmental hazards, and provide practical solutions that can be applied in clinical practice.

Cardiometabolic disease and herbal medicine: new insights into an old foe

Dr Bradley McEwen¹

¹Endeavour College of Natural Health, Sydney, New South Wales, Australia.

Biography:

Dr Bradley McEwen is a naturopath, nutritionist, herbalist, lecturer and researcher with over 17 years of clinical experience. He has a passion for teaching and research. He has lectured in nutritional medicine and the health sciences for 12 years and presents at seminars and conferences both nationally and internationally. He has numerous original research and review articles published in peer-reviewed journals. He received the Eberhard F. Mammen Young Investigator Award (an international award in thrombosis and haemostasis). In 2016, Bradley received the Excellence in Practice Lecturer Researcher of the Year. He is also a reviewer for international journals.

Introduction: Cardiometabolic disease is a multifactorial disease with numerous risk factors, including platelet hyper-aggregation, increased coagulation, diabetes, dyslipidaemia, inflammation, overweight/obesity, physical inactivity, and poor nutrition. Herbal medicines have been used for millennia for various health conditions, particularly cardiometabolic disease. A review of the literature was conducted to investigate the effects of herbal medicines on modifying cardiometabolic risk.

Methods: PubMed, EBSCO, and ScienceDirect databases were searched using combinations and variations of the following search terms: cardiometabolic disease, cardiovascular disease, diabetes, platelets, herbal medicine.

Results: A number of herbal medicines were found to have efficacy in the management of cardiometabolic disease. These herbal medicines were utilised in the management of atherosclerosis, hypercholesterolaemia, increased platelet aggregation and function, hypertension, venous insufficiency, and peripheral vascular disease. Herbal medicines were found to possess anti-inflammatory, antioxidant, antithrombotic, cholesterol lowering, hypoglycaemic, and hypotensive properties. In addition, feverfew, garlic, ginger, ginseng, turmeric and willow bark were found to reduce platelet aggregation. Furthermore, when dan shen and panax ginseng were co-administered with warfarin, there was an increase in prothrombin time.

Discussion/Conclusion: Herbal medicines have numerous health promoting properties. A deeper understanding of the prevention and management of cardiometabolic disease utilising herbal medicines for their anti-inflammatory, antioxidant, antithrombotic, cholesterol lowering,

hypoglycaemic, and hypotensive properties, in an integrative medicine method, plays a major role in optimising patient outcomes.

Cardiovascular complexity – the intricate case of Miss T

Mr Ian Breakspear¹

¹*Wholmed Consulting, Sydney, Australia*

Biography:

Ian has been a herbalist and naturopath for 24 years, and an educator for 21 years. He specialises in helping patients with mild to severe cardiovascular and peripheral vascular diseases, employing a mixture of traditional as well as modern scientific approaches to these conditions. He has presented at various continuing education seminars and is a contributing author of a chapter on cardiovascular disease management in a forthcoming naturopathic textbook. For 8 years Ian was also on the NHAA Board, as an Examiner, Executive Director and finally Vice-President, and was awarded Fellowship of the NHAA in 2006.

Introduction: Cardiovascular medicine is an advanced and technical speciality, and sometimes considered to be the domain of conventional medicine only. However, there is growing positive clinical trial evidence for herbal interventions, and a holistic approach offers opportunities to fill gaps in total patient care. This case demonstrates how, even in a patient with a complex presentation including both heart failure and two types of rhythm disturbances, herbal medicine can offer significant benefits.

Case Summary: Miss T was 31 years old upon presentation, with a diagnosis of left ventricular failure, supraventricular tachycardia, and atrial fibrillation. Over a treatment period greater than 40 weeks, which included an acute urinary infection, pregnancy, morning sickness, and an acute episode of loss of consciousness, herbal medicine was employed with the aim of reducing the severity of heart failure, severity and frequency of rhythm disturbances, and improving quality of life.

Outcomes: Patient outcomes included reductions in the severity of rhythm disturbances and improvement in exercise tolerance, and finally a successful birth. Various ancillary health issues were also managed successfully with a combination of naturopathic and conventional medicine.

Implications: The case illustrates the value of employing herbal and naturopathic medicine as part of a combined care approach to managing patients with complex cardiovascular conditions. It also highlights the importance of careful prescribing to ensure safety with concurrent medications and confounding factors. Hindsight analysis also points to opportunities for potentially greater impact on heart failure through flexible dosing regimens.

The naturopathic management of type 2 diabetes: a case report

Mrs Sandy Watts¹

¹Wellpark College of Natural Therapies, Auckland, New Zealand

Biography:

Sandy Watts graduated as top student this year from Wellpark College of Natural Therapies in Auckland, New Zealand, with a Bachelor of Naturopathic and Herbal Medicine. Since graduating, she has set up 'Uniquely You Health Solutions Ltd' and saw her first client in March. She is loving practising from her naturopathic clinic/herbal dispensary, based at her North Shore home, and is enjoying continuing to learn as she builds her clinical experience and expertise.

Introduction: Naturopathic treatment can complement conventional care in type 2 diabetes, empowering client change and fostering medication compliance.

Case Summary: This case study examines the effects of naturopathic treatments involving nutrition, lifestyle and herbal medicine interventions on a 60-year-old male presenting with longstanding type 2 diabetes. The aim is to investigate whether naturopathic management plays a useful role in reducing the risk of disease complications and significantly improving diabetes control. This individual has undergone surgery for early stage diabetic retinopathy. He also presented with benign prostatic hyperplasia (BPH) and possible loss of kidney function. Implementation of the treatment plan took place over 16 weeks, consisting of an initial consultation, wellness plan presentation, and six follow-up sessions. Objective clinical outcome measures consisted of HbA1c and random blood glucose readings, kidney function blood tests, body mass index (BMI) and waist circumference. Client-generated clinical outcome measures, Measure Your Own Medical Outcome Profile (MYMOP2), and diabetes symptom checklist (DSC-R), were used to assess clinical changes throughout the case.

Outcomes: The client was empowered to adopt considerable change, and, with the exception of HbA1c, which worsened due to non-compliance of one of the medications during part of the program, all other outcome measures showed improvement. In particular, random blood glucose readings increasingly fell within normal range. MYMOP2 and DSC-R produced clinically significant improvements.

Implications: Naturopathic management proved useful in this case in improving management of longstanding type 2 diabetes. More research is needed to confirm effectiveness of naturopathic interventions.

Increasing necessity for complementary and alternative medicine practitioner awareness and understanding of practical clinical management of rapidly emerging inflammatory gastrointestinal disease eosinophilic oesophagitis

Mrs Nicole Hannan¹

¹*Alchemy Health & Wellbeing, Miami, Australia*

Biography:

Nicole Hannan is a naturopath (BSc Sports Medicine, BHSc Naturopathy) who runs a busy clinical practice. Her special interest in the area of eosinophilic gastrointestinal disorders (EGIDs) began in 2010 when her daughter was diagnosed with eosinophilic oesophagitis (EoE). Since this time Nicole has stayed up to date with EGID research and has consulted with many EGID patients, the most common presentation being EoE. Nicole is passionate about educating practitioners in the practical clinical management of EGIDs and is undertaking post graduate research in this area in 2017.

Introduction: Eosinophilic oesophagitis (EoE) is a chronic antigen-driven inflammatory disease characterised histologically by high levels of eosinophils in the oesophagus and clinically by oesophageal dysfunction and gastrointestinal (GI) symptoms. Untreated EoE can lead to considerable GI complications. Although the prevalence of EoE has increased dramatically in the past decade to approximately 1 in 2,000 in Westernized countries (as high as 1 in 10 in patients with Crohn's disease), under-diagnosis due to poor practitioner awareness and invasive diagnostic techniques indicates that actual numbers are likely to be even greater, highlighting the need for increased practitioner awareness.

Focus of Discussion: There are currently no pharmaceutical or CAM therapies specifically indicated for the management of EoE. Swallowed topical steroids, elimination diets and elemental formula are the only currently recognised methods of management. Severe allergic/intolerance reactions to foods, herbs, nutritional supplements and environmental allergens are common in EoE, requiring an adequate understanding of this disease for both allopathic and CAM practitioners. This presentation will highlight basic epidemiology, aetiology, signs and symptoms; understanding elemental formula, pharmaceutical and elimination diet recommendations in EoE; and practical management tips for CAM practitioners.

Implications: Practitioner awareness and understanding of EoE management is low, despite prevalence continuing to rise rapidly. Given the allergic nature of EoE the contribution of a CAM practitioner can be in the ability to identify possible triggers and ways to safely modify existing treatment protocols for optimal patient outcomes.

Proposed update of clinical guidelines for naturopaths and herbalists working within the integrative care of people living with HIV

Mr Trent Wrightson¹

¹*Trent Wrightson Naturopathy, Melbourne, Australia*

Biography:

BDevStud, University of Newcastle, NSW; BHSc (Naturopathy), Southern School of Natural Therapies, Melbourne; NHAA member, currently in private practice. No relevant affiliations. Trent's interest in this topic was sparked while studying naturopathy, after diagnosis of HIV in a close friend. He provided personal support from the initial diagnosis though to starting ART. This research interest continued throughout his course. As a new naturopathic graduate, he has consolidated this research focusing on the role a naturopath and herbalist can play in HIV. He has a special interest in the application of naturopathic principles in complex situations and with under-served populations.

Introduction: HIV has become a chronic disease with viral suppression successfully maintained when individuals have lifelong access to anti-retroviral therapy (ART). In Australia, ART is fully subsidised under the PBS. While this has led to increased longevity, individuals still face significant physiological changes and an increased risk of non-AIDS related disease. Naturopaths and herbalists are uniquely placed to help address these emerging health issues, and will benefit from an understanding of ART side-effects, toxicity, herb/drug interactions, metabolic changes and specific holistic health issues. In August 2015, ART prescribing guidelines were updated by the Australasian Society for HIV, Viral Hepatitis and Sexual Health Medicine (ASHM) – the peak body to determine guidelines. These new guidelines recommend commencement of treatment as soon as possible after diagnosis with HIV. Previously, ART was delayed until CD4 levels were below 500 cells/mm³ or symptomatic HIV disease. As there is no longer this period of time without antiviral medication, our focus will now be on co-treatment.

Focus of Discussion: New clinical guidelines will be proposed, detailing our unique role in the team care of people living with HIV. Applying the principles of naturopathic philosophy in reducing drug toxicity, treating associated co-morbidities and promoting optimal health and quality of life for people living with HIV.

Implications: Given the changes in ART prescribing, it will take time for our texts and education courses to reflect these recent changes. With 55% of people living with HIV in Australia using CAM, naturopaths and herbalists need to not only be safe and effective practitioners, but also understand and articulate the unique role we can play in the integrative care of people living with HIV.

Dosing with fresh herb tinctures for acute and chronic conditions

Ms Linda Bates¹

¹*Linda Bates Herbal Medicine, Sydney, Australia*

Biography:

After 32 years of clinical practice Linda Bates, B.A., Dip. Herb. Med., Cert. Nutrition, is dedicated to passing on her knowledge and adding to the traditional body of knowledge we inherit from our elder clinicians. As a 4th generation herbalist growing up in the UK and Europe and learning to use fresh plants from the wild they became her best friends. In the late 70's and early 80's Linda studied with Dennis Stewart and Dorothy Hall and for the last 24 years she has been manufacturing her medicines and creams with fresh plants and teaching others what she knows.

Introduction: The purpose of this talk is to offer important knowledge about dosing with fresh plant tinctures gleaned from her years of using fresh plant infusions and tinctures. This talk will also offer insights into some of the energetic differences between dried and fresh plant medicines.

Fresh-plant tinctures and fresh plants are commonly used in Western herbal medicine traditions by clinicians. Manufacturers in England, USA and Europe provide fresh-plant medicines for their clinicians. How do we interpret the differences between so many preparations used by clinicians in the documented history available to us? The dosages described in the British Pharmacopoeia in 1983 are for dried plant tinctures and were calculated by a committee of pharmacists with only one practicing herbalist sitting with them, according to the Introduction. The main consideration of their dedicated work was to protect the public and they tell us that safety was their primary concern, not efficacy. The dosing charts recommended for our students of naturopathy to use are based on this work.

Case Summary: Using a number of categories of case studies, including emergency, long-term chronic, and serious acute, which clearly demonstrate different dosage tactics used for successful outcomes.

Outcomes: Management of the body in ill health using a wide range of dosage skills depending on acute or chronic symptomology. Improved understanding of different energetic properties of dried plant tinctures and fresh plant tinctures.

Implications: An increasing number of clinicians want to use fresh plant tinctures. At last we have professionally manufactured fresh plant tinctures available to us in Australia. How do we use them?

Aiding recovery in ice addiction - short and long term treatment goals via naturopathic interventions

Ms Sally Chick¹

¹*Windana Drug & Alcohol Recovery, St Kilda, Australia*

Biography:

Sally Chick has been the Senior Naturopath and Team Leader at Windana Drug & Alcohol Recovery for the last 6 years. Leading a team of naturopaths and other health practitioners Sally has worked with hundreds of individuals, aiding their journey through detoxification and long term recovery from drugs and alcohol via naturopathic medications. Over that time she has built up a wealth of knowledge and hands-on experience with how to best help individuals wanting to detoxify from ice and regain their health

Introduction: Ice is one of the most destructive drugs on the illicit market, in its physical effects, mental effects and behavioural effects. Working with patients in recovery can be quite daunting for practitioners. My intention is to share the knowledge we have gained at Windana Drug & Alcohol Recovery as naturopaths working with clients addicted to ice, in order to help practitioners understand the effects of ice on the body and how they can aid recovery via naturopathic treatments.

Focus of Discussion: The presentation will focus on how to treat clients who are suffering/have suffered from an ice addiction, including:

- What is ice, and how does it affect the body?
- Short term symptom picture and treatment regime for the immediate detoxification from ice using vitamin and mineral supplementation along with herbal medications.
- Long term health issues to be aware of and how to treat these effectively via diet and lifestyle advice, vitamin and mineral supplementation and herbal medications.
- How to help minimise cravings and aid long term abstinence.

Implications: The intention of this presentation is to provide practitioners with the confidence to work with individuals in recovery as well as the knowledge and understanding of what to be aware of regarding the long-term health issues associated with ice addiction. By sharing this knowledge with practitioners I hope to provide those in recovery from ice addiction more health choices and access to professionals that are comfortable and confident to work with them.

Children's use of complementary medicine in Australia: a pilot study to determine parental attitudes and health seeking behaviour

Dr Jane Frawley¹

¹University Of Technology Sydney, Ultimo, Australia

Biography:

Dr Jane Frawley is a Lecturer in Public Health at University of Technology Sydney. Dr Frawley's research program applies rigorous public health and health services research methods to the areas of maternal and child health. Dr Frawley is also currently working on an Australian Research Council funded project, in partnership with the Sax Institute 45 & Up Study, investigating women's use of non-formal health care for five chronic health conditions, namely depression, diabetes, asthma, osteoarthritis and osteoporosis. Dr Frawley has published over 60 peer-reviewed manuscripts from this work and regularly presents her work at local and international conferences.

Introduction: Recent international studies have highlighted the growing use of complementary medicine (CM), including herbal medicine, by children; however, research from Australia is scarce. This is the first Australian study in over 10 years on CM use in the general paediatric population.

Methods: An online survey (n=149) was carried out to determine parent's attitudes and decision-making regarding their children's health needs. Information on children's conventional and complementary health service utilisation was collected as well as parental attitudes, beliefs and information seeking regarding the use of CM.

Results: A total of 73.8% of parents used CM products or practices for their children and of this, 48.3% had consulted a CM practitioner and 68.5% had used a CM product. In the previous 12 months 89.9% of children had consulted a general practitioner, 30.3% had visited a paediatrician and 30.4% had visited a naturopath/herbalist. A total of 61.7% of children used vitamins and minerals and 38.8% used herbal medicine and 52% of parents did not disclose the use of CM to their primary health care physician. Use of CM products was associated with age, area of residence, marital status, and education ($p < 0.05$). Use of CM was associated with childhood vaccination status ($p < 0.05$).

Discussion/conclusion: This pilot study shows high use of CM amongst the general paediatric population. Larger, nationally representative studies are warranted to further explore CM use for children and to determine if the association between vaccine uptake and CM use are due to CM practitioner attitudes to vaccination or parental health beliefs.

Patient-centred care, empathy and empowerment in complementary medicine clinical practice: a cross-sectional pilot study

Ms Hope Foley¹, Dr Amie Steel^{1,2}

¹Endeavour College Of Natural Health, Brisbane, Australia, ²University of Technology Sydney, Ultimo, Australia

Biography:

Hope Foley is a postgraduate student at the Endeavour College of Natural Health. She is undertaking her Honours in Naturopathy, with a focus on the psychosocial aspects of clinical care in complementary medicine. As a dedicated naturopathic clinician, she has a special interest in holism and patient-centred care as they are applied in clinical practice.

Introduction: Psychosocial aspects of clinical care impact on health outcomes and an understanding of this has led to emphasis on patient-centred care (PCC). It has been asserted that the holistic philosophies of complementary medicine (CM) align closely with PCC principles. Patients of CM practitioners, particularly those with chronic health conditions, seek CM specifically to access holistic, patient-centred clinical care. While qualitative research suggests CM patients do receive PCC, there has been little attempt to quantify PCC in CM.

Methods: This study piloted a quantitative patient-reported survey comprised of existing validated measures to assess experiences of PCC, practitioner empathy and patient empowerment across five CM professions (naturopathy, nutrition, homeopathy, acupuncture, myotherapy). Convenience sampling was implemented to recruit 252 respondents in a multi-profession CM student clinic.

Results: Patient perceptions of PCC, practitioner empathy and patient empowerment were consistently reported as high across all five professions. However, patients of professions which use ingestible treatments (naturopathy, nutrition, homeopathy) reported stronger experiences in items regarding a whole-person approach ($p=0.027$), practitioner compassion ($p=0.003$) and promotion of self-efficacy ($p=0.001$). Interestingly, patients whose visit related to chronic health conditions reported stronger experiences of empowerment in terms of taking control of their health ($p=0.04$).

Conclusion: While the setting and sampling methods present some limitations, findings from this study suggest a potential role for CM in meeting the psychosocial health needs of patients, particularly those with chronic health conditions. The Holistic philosophy and practice of CM may be well aligned with PCC.

Strengthening clinical reasoning

Dr Jeff Flatt

Biography:

Jeff Flatt ND PhD has experience in the practice, education and research of naturopathy and Western herbal medicine. He has recently received his doctorate where his research focus was the intersection of philosophy and evidence for practicing clinicians. Jeff's presentations will discuss the findings of this research, where he hopes to challenge and inspire in equal measure. Jeff is currently a board director of NHAA.

Introduction: Health care clinical decision-making directs therapeutic interventions and ideally encompasses the art and science of medicine. An overemphasis on either of these is regarded as less than ideal, but many commentators describe reasoning within either medical art or science as distinct. The underlying drivers of the applied reasoning within this polarised dynamic are not commonly discussed, and the way complementary medicine practitioners rationalise their clinical decisions is largely unknown in this context.

Methods: Theoretical, propositional and logic analysis was applied within a critical literature review as a way to establish the clinical reasoning characteristics of the general health care field. Findings were compared to the thematic and discourse analysis outcomes of focus groups and interviews with 44 naturopathic and Western herbal medicine practitioners. Similarities and differences were assessed against the health care knowledge literature.

Results: Health care decision-making involves practical and instrumental reasoning that accompanies either tacit or explicit knowledge. Each of these types of reasoning acts to prioritise certain knowledge forms as a way to address various clinical presentations. naturopathic and Western herbal medicine practitioners largely emphasise practical reasoning, as this enables a focus on non-deterministic ends to address complex patient cases. Instrumental reasoning is secondary as this fails to incorporate the multivariate and contextualised patient existence.

Discussion: The clinical action of complementary medicine practitioners derives from practical reasoning, which is a logically cohesive and rationally defensible position. However, there is currently insufficient substantiation and articulation of these applied reasoning techniques, and clarification of these can embed, extend and innovate complementary medicine education and practice.

Understanding how complementary and alternative medicine practitioners relate to and interpret evidence in clinical practice

Mr Joshua Sutherland¹, Dr Matthew Leach², Dr Amie Steel^{3 4}

¹Endeavour College Of Natural Health , Adelaide , Australia , ²University of South Australia , Adelaide, Australia , ³Endeavour College of Natural Health, Brisbane , Australia, ⁴University of Technology Sydney

Biography:

Joshua Sutherland is a graduate of the Endeavour College Nutritional Medicine Bachelor of Health Science degree. Joshua has since been accepted into the capstone Honours degree, where he is focusing his research on evidence-based practice (EBP) in complementary medicine (CM). Joshua has been guided in his research by Dr Matthew Leach and Dr Amie Steel, both of whom are world leaders in the area of EBP in CM research. Joshua excelled in his undergraduate public speaking endeavours, and comes from a 5-year career in film and television media production prior to his academic ventures.

Introduction: The prominence of evidence-based practice (EBP) has risen since it was first introduced in the mid-1990s. Recent years have seen an increase in research analysing EBP within complementary and alternative medicine (CAM), with studies revealing many barriers to EBP application. A deeper understanding of the way in which CAM practitioners engage with and interpret EBP is needed in order to develop supportive measures that work with, rather than in opposition to, CAM culture and philosophy.

Methods: Semi-structured interviews were conducted with three practitioners from each of six primary Australian CAM professions, including massage therapy, chiropractic, homeopathy, naturopathy, osteopathy, and traditional Chinese medicine. Data were analysed using a modified grounded theory approach, using content analysis to identify thematic categories.

Results: A dominant theme that emerged was 'recognition of expertise'. Embedded within this was a belief that the EBP model did not cater for clinician expertise in highly individualistic patient-care scenarios. Hence, CAM practitioners expressed an understanding of EBP that was discordant with the conventional EBP model, with most practitioners believing EBP principles involved the use of published evidence alone.

Discussion/Conclusion: CAM practitioners appear to place themselves at odds with EBP. This maybe due to a lack of understanding that conventional EBP does in fact consider clinical expertise to play a fundamental role in clinical decision making. It is therefore proposed that EBP is being perceived as dogma rather than a set of guiding principles. Such misunderstanding may situate practitioners in opposition to the evolving EBP in the CAM paradigm, instead of being positioned as active pioneers in its evolution.

Investigating the pharmacological connection between methylene tetrahydrofolate reductase (MTHFR) enzyme deficiency and use of complementary medicine supplements such as activated B vitamins

Dr Janet Schloss¹, Mr Daniel Baden, Dr Nitish Agrawal¹

¹*Endeavour College Of Natural Health, Fortitude Valley, Australia*

Biography:

Dr Janet Schloss: Dr Schloss has been in private practice as a nutritionist and naturopath for over 17 years and has just completed her doctorate at the School of Medicine in the University of Queensland through the Princess Alexandra Hospital. She has also lectured at the Endeavour College, formerly known as the Australian College of Natural Medicine, for over 11 years and is now a senior research officer in surveys and statistics with the Office of Research at Endeavour. Janet's main speciality is with people who have cancer, especially assisting patients undergoing medical treatment. She has a number of publications and book chapters.

Mr Daniel Baden: Daniel is a naturopath and Homoeopath with 27 years of experience. He has presented seminars and spoken at conferences throughout Australia, New Zealand, Asia, the US and the UK for nearly 25 years. He had spent the first half of his career in clinical practice but is now running BioMedica Nutraceuticals as a founding director. Daniel serves on several advisory boards across industry and education both locally and internationally. Daniel's interest is in promoting the role of the holistic practitioner and in the application of honest science to holistic healing philosophies. His particular interest is in supporting patients with chronic diseases particularly those of the GIT and cancer.

Dr Nitish Agrawal: Dr Agrawal holds a PhD from University of Iowa, USA and BSc and MSc degrees in Chemistry from University of Delhi, India. He has gained worldwide recognition for his research achievements on thymidylate synthase, cystathionine β -synthase (enzymes involved in folate, homocysteine metabolism), diagnostic imaging, HIV-1 envelope glycoprotein-based vaccines and enzyme-based targeted therapies for treating autoimmune diseases during his appointments at University of Iowa, GE Global Research, University of Michigan, Scripps - USA and University of Queensland. Dr. Agrawal is Lecturer in Biosciences at Endeavour and his specialties are inflammation, cancer, *in vitro* pharmacology, enzymology, biochemistry, functional genomics, immunology and molecular biology.

Introduction: Recently in the complementary medicine profession there has been a major focus on genetic mutations in methylenetetrahydrofolate reductase (MTHFR) enzyme that are associated with elevated homocysteine levels. In response to this focus, an emphasis on the use of activated B vitamins has occurred. However, the manner in which these types of vitamins are absorbed still has not been confirmed, only postulated.

Focus of Discussion: A panel consisting of three different viewpoints on MTHFR includes a clinician and researcher, an industry representative and an enzymologist/biochemist. These professionals will discuss the role of the MTHFR enzyme, vitamin B supplementation, and research on the absorption of activated B vitamins and the clinical implications for CM practitioners. There is speculation on the importance of MTHFR, how it affects the body and how to treat it. In addition, activated B vitamins are being touted as the best form for absorption and treatment for this genetic predisposition. There are some underlying questions on pharmacokinetics of these types of vitamins and how our body absorbs and metabolises them. In addition there will be a discussion about clinical studies investigating the outcome of supplementation from activated B vitamins in patients.

Implications: New biochemical variances are continually being discovered and implicated in many different signs, symptoms and diseases expressed in people. However, evaluating the evidence surrounding these is important and enhancing our understanding of the impact of these is clinically invaluable. Understanding the research on vitamin B absorption and metabolism is also imperative for complementary medicine practitioners to provide 'best clinical practice' to their patients.

Evidence based clinical practice for naturopaths and herbalists

Dr Susan Arentz¹

¹National Institute Of Complementary Medicine (NICM) Western Sydney University, Sydney, Australia

Biography:

Susan is a clinical naturopath working within a gynaecology and obstetrics group practice; a lecturer and clinical supervisor at Endeavour College; and an adjunct research fellow at NICM, Western Sydney University. Susan's PhD investigated the role of naturopathy in the management of women with polycystic ovary syndrome (PCOS) and contributed to building the evidence base for naturopathic clinical practice. Susan is a member of the NHAA, Australian Register of naturopaths and Herbalists (ARONAH) and the Fertility Society of Australia.

Introduction: Evidence-based practice is defined as clinical treatment decisions informed by patients' values, clinical expertise and the best available research. This workshop will introduce a systematic process that guides herbalists and naturopaths to evidence-based practice, preserving the integrity of traditional expertise and the administration of complex, multidimensional treatments. The value of this workshop will be its contribution to preparing practitioners for integrative clinical practice.

Workshop Topic: Developing the identity of naturopaths and herbalists in health and medical settings.

Learning Objectives:

- Understanding what patients' value and need from naturopaths and herbalists;
- Finding relevant evidence and assessing quality, reliability and relevance;
- Evidence based naturopathic and herbal treatment decisions, case by case.

Implications: Develop a transparent, naturopathic/herbal practice that integrates with health and medical practices and delivers genuine naturopathic, person-centred care.

Calming the chaos - skills in the assessment and management of the acutely suicidal patient for complementary medicine practitioners

Dr Stuart Glastonbury¹

¹*Private practice, NSW, Australia*

Biography:

Dr Glastonbury is a general medical practitioner (RACGP) and Fellow of the Naturopath and Herbalist Association of Australia with advanced training in mental health presentations. He has worked in primary health care in Australia for the last 10 years. He is currently engaged in full time clinical practice with a high percentage of mental health presentations. As a clinical supervisor of undergraduate complementary medicine (CM) students he has seen first hand the deficiency in training for CM students in assessment and management of acute mental health presentations.

Introduction: Complementary medicine (CM) practitioners are educated and well placed to manage chronic mental health concerns in clinical practice in Australia. There is, however, a current deficiency in training in the undergraduate setting to assess and manage acutely suicidal patients. There are also very few post graduate pathways for clinicians to learn these important clinical practice skills. As CM practitioners place themselves in a position to take more of a primary role in health care in Australia it is predictable that CAM practitioners will see more acutely unwell people. A lack of training in acute mental health presentations can not only be extremely confronting and distressing for the practitioner but, at worst, could have serious consequences for the patient.

Case Summary: This workshop will revolve around a number of suicidal patient presentations and use these to trigger questions and discuss learning outcomes.

Outcomes: A systematic approach to history taking and risk stratification. Immediate management options and follow up guidelines. Medico-legal responsibilities and implications for the CM practitioner.

Implications: Suicidal patient presentations are extremely stressful clinical experiences for all health practitioners. Ill equipped assessment and management of acute mental health presentations can have far reaching negative effects for the clinician, the patient and the wider community. This workshop will therefore serve as an initial education tool for practitioners to help enable a confident and competent assessment and emergency management of the suicidal patient presentation - an integration of chronic and acute clinical skills.

From molecules to health outcomes – ever wondered how to critically analyse molecular biology, cell biology and clinical trial scientific papers?

Dr Andrea Bugarcic¹

Endeavour College of Natural Health, Brisbane, Australia

Biography:

Dr Andrea Bugarcic is affiliated with Bioscience Department at Endeavour College of Natural Health. Dr Bugarcic has completed a PhD in virology and has extensive experience in cellular biology in the context of disease and infection.

Introduction: Scientific communication in its rigidity and specificity can present challenges to audiences outside of the specific scientific field. Complementary and alternative practitioners and researchers are skilled in sociological aspects of health and scientific research, but may struggle with extracting relevant and sound information from primary scientific research papers. Inexperience in the methodologies, in the objective analysis of primary data derived from various methods and in the designing of experiments to answer specific hypotheses may all be contributing factors.

Workshop topic: The proposed workshop will describe the common methodologies used in molecular and cellular biology research, point out common ways of identifying sound research and explain the use of this research in designing clinical trials.

Learning objectives: To achieve this, the speakers will firstly present a synopsis of all relevant areas and then invite participants to engage with activities that will allow them to critically analyse several scientific papers.

Outcomes: At the conclusion of the workshop, the participants will be able to describe common molecular and cellular methodologies, integrate them into the results presented in the papers and apply this knowledge into development of evidence-based clinical trials.

Plants and the microbiome

Mr Simon Mills¹

¹*Sustaincare Community Interest Company, Exeter, UK*

Biography:

Simon Mills has been in the frontline of herbal medicine and natural therapy for 40 years and has practised in Exeter, England all that time. He is a Cambridge medical sciences graduate who has set up postgraduate and research programmes at UK and USA universities and medical schools. With Kerry Bone he is the award-winning author of seminal textbooks and is Visiting Adjunct Professor at the South Pacific College of Natural Medicine in Auckland. He is currently focused on steering natural therapies back to their rightful place in health care, as core elements in self care and social prescription (www.ourmedicine.net).

Introduction: Our microflora are increasingly seen as key to who we are, directly affecting digestion, immune, neuroendocrine and circulatory functions, and being central to metabolism and elimination. Disturbances in the microbiome may be significant in the onset of many modern illnesses. Nevertheless, the dynamics of this population and ways to influence it are still largely unknown, and the value of conventional prebiotic and probiotic approaches unclear.

Focus of Discussion: We can begin to construct a case for using primary and secondary plant metabolites, in foods and herbal medicines, to affect key elements of the microflora. Plant constituents can be shown, directly or indirectly, to affect the symbiotic relationships between the flora and host, and to support the robust commensural populations that can resist disruption and maintain gut surfaces.

Implications: New therapeutic strategies, unique to natural therapists, are becoming apparent. We will assemble protocols that could have significant effects on the health of the microbiome, and of the patient with dysbiosis and related gut disturbances.

Modifying the microbiota in metabolic disease: an under-utilised clinical approach

Dr Jason Hawrelak¹

¹*University Of Tasmania, Hobart, Australia*

Biography:

Dr Jason Hawrelak is a researcher, lecturer, naturopath and Western herbalist with more than 16 years' clinical experience. Jason practices at Goulds Natural Medicine, a 135-year-old natural medicine apothecary and clinic located in central Hobart and he did his PhD examining the capacity of probiotics, prebiotics and herbal medicines to modify the GIT microbiota. Jason is currently the Senior Lecturer in Complementary and Alternative Medicines at the University of Tasmania's School of Medicine (Hobart, Tasmania), where he coordinates the Evidence-based Complementary Medicine programs. He also teaches natural approaches to Gastroenterology within the University of Western States Master of Science in Human Nutrition and Functional Medicine program (Portland, Oregon).

Introduction: The rates of both metabolic syndrome and type 2 diabetes have escalated dramatically in Australia over the past 30-years. It is now estimated that 20-30% of Australians suffer from Metabolic Syndrome and over 1.5 million Australians have type 2 diabetes.

Focus of Discussion:

Research conducted over the past decade has found significant links between both of these conditions, as well as other metabolic diseases, with dysbiosis and dysfunction in the gastrointestinal tract (GIT) microbiota. Alterations in bacterial diversity and species composition caused by the typical Western diet and lifestyle appear to be key drivers in metabolic disease. This presentation will provide an overview of what the research in this area has found to date and highlight innovative treatment approaches that can both beneficially modify the composition and functioning of the GIT microbiota and improve metabolic disease outcomes.

Implications: Using tools to deliberately modify the GIT microbiota in metabolic disease is currently an under-utilised therapeutic approach, with a significant body of evidence now demonstrating the beneficial impact of microbiota-modifying interventions on a wide range of metabolic disease parameters. These interventions will be a welcome addition to the toolbox of practitioners treating these common clinical conditions.

Unsoothable infants and GORD – an unhelpful diagnosis

Ms Dawn Whitten^{1,2}

¹*Goulds Natural Medicine, Hobart, Australia,* ²*University of Tasmania, Hobart, Australia*

Biography:

Dawn Whitten BNat (Hons) IBCLC is a naturopath, herbalist and an International Board Certified Lactation Consultant. She has been in clinical practice for 14 years, mostly in busy apothecary and clinic settings where she has had the opportunity to work with many mothers and babies. She participates in peer education and is passionate about sharing her lactation knowledge in the naturopathy field. Dawn is part of the collective running Goulds Natural Medicine, an apothecary and clinic established in Hobart Tasmania in 1881. She also coordinates two units within the Evidence-based Complementary Medicine post-graduate program at the University of Tasmania.

Introduction: A crying and unsettled baby often drives parents on a desperate hunt for an explanation and treatment. While ALL babies have physiologic reflux, and parental-perceived excessive crying occurs in one in five babies, gastrooesophageal reflux disease (GORD) in infants is extremely rare. Yet many unsettled infants are tagged with a GORD diagnosis and unfortunately prescribed acid-suppressing medications despite practice guidelines advising otherwise.

Focus of Discussion: Naturopaths and herbalists are likely to be consulted by parents who come with a preformed concept of their infant having GORD. Understanding normal infant physiology is important so that naturopaths can unpack this often multilayered scenario and provide effective help to these families. Feeding issues are common unidentified, underlying causes for unsettled behaviour in infants. When left unaddressed these can lead to premature cessation of breastfeeding. Hence, referring mothers for breastfeeding support is a core part of addressing unsettled infant behaviour. Potential factors such as dysbiosis, food sensitivities and visceral hypersensitivity are important to consider and address. Furthermore, a wholistic treatment approach promotes maternal wellbeing, as parental anxiety is often associated with this presentation.

Implications: Parents are often working through a list of treatments and therapists they hope will reduce their infant's crying. By offering a holistic, individualized approach that is underpinned with an understanding of infant physiology and normal infant behaviour, practitioners can focus on reassuring parents and help them to address the underlying cause, without exposing infants to unhelpful and potentially harmful treatments.

A fresh look at phytotherapy for cardiovascular disease

Prof Kerry Bone¹

¹*Mediherb, Warwick, Australia*

Biography:

Professor Kerry Bone is co-founder and Director of research and development at MediHerb and Adjunct Professor at New York Chiropractic College. He is co-author of more than 30 scientific papers on herbal research and currently the only Australian member of the editorial board of the journal *Phytomedicine*. Kerry has written six popular, award-winning textbooks on herbal medicine, including his latest with Simon Mills, the second edition of *Principles and Practice of Phytotherapy*. He has maintained a busy practice in Toowoomba, Queensland since 1985. In 2015 Kerry's lifelong contribution to the field of herbal medicine was recognised by the Lady Cilento Award.

Introduction: Despite the research advances and billions of dollars spent by drug companies and universities, arterial disease, leading to heart attacks and strokes, is a significant cause of death and disability in our communities. The famous Framingham Heart Study was the first to clearly define those risk factors for arterial disease that can be targeted for prevention. As a result, there is currently a medical focus on drugs that lower cholesterol. But is this approach consistent with new research findings on what actually causes arterial disease and then triggers a heart attack or stroke?

Focus of Discussion: The latest information about maintaining good arterial health and the triggers of acute cardiovascular events, including the overwhelmingly detrimental role of stress, is reviewed. This includes some surprising new facts that also challenge current thinking about the value of some commonly used herbs for CVD. The key concept of vulnerable plaque, and its ability to reshape how we view the patient with arterial disease, will be scrutinised from the perspective of the phytotherapist. One major implication is that herbs not previously seen as being at the forefront of CVD risk management now acquire a new prominence.

Implications: Vulnerable plaque is the elephant in the room of cardiovascular risk assessment. Its role in the precipitation of hard cardiovascular events is a radical new concept and a fertile field of discovery for phytotherapy.

Point of care screening and the role of complementary practitioners in the detection of modifiable risk factors for chronic diseases

Ms Keonie Moore¹

¹Remed Natural Medicine Clinic, Lower Plenty, Australia

Biography:

Keonie is an experienced presenter and as such was keynote speaker at the 2nd International Endocrinology conference, Chicago 2014 where she presented alongside the deputy editor of British Medical Journal. Keonie has since been invited as keynote speaker for the Global Dieticians and Nutritionist Annual Conference, Philadelphia December 2016 on the Role of Vitamin E in Gliomas. Keonie is a highly sought-after practitioner in autoimmune disorders and oncology and has been in clinical practice for 10 years. She leads a team of 18 practitioners and 10 staff in a multi-modality clinic that exemplifies assimilation of research findings into clinical practice.

Introduction: In Australia, 11.7m adults have at least one modifiable risk factor for cardiovascular disease, yet clinical screening for key risk factors such as blood pressure and waist circumference are not routinely monitored in clinical settings. Studies have shown that a large number of individuals are not aware that they are at risk and may have undetected hypertension or at-risk waist circumference; a central feature of metabolic syndrome. Metabolic syndrome is a well-documented forerunner to both type 2 diabetes mellitus and cardiovascular disease with early detection in combination with dietary and lifestyle interventions reducing the incidence of progression by almost 60%. With the increasing burden of chronic disease and its impact on health care, these findings suggest that there is substantial scope to improve the detection and management of modifiable risk factors for chronic disease.

Focus of discussion: Complementary practitioners are considered to be providing primary health care in some regions of Australia and account for half of the total health consultations. The large, under-utilised CAM workforce may be well positioned to play a pivotal role in the early detection of modifiable risk factors.

Implications: Since early detection can potentially alter disease progression, the practical aspects of implementing point-of-care screening and developing standard operating procedures for practitioners in clinical settings will be explored. The value and validity of specific testing will be reviewed in combination with strategies to educate at-risk patients to increase awareness and early interventions for modifiable risk factors.

Mould sensitivities and mycotoxins - how to diagnose, accurately test and successfully treat using herbal medicine

Mrs Amina Eastham-Hillier¹

¹Noosa Holistic Health, Noosa, Australia

Biography:

Amina is a naturopath, medical herbalist and nutritionist and owns a successful multi-modality integrated clinic in Noosa, comprising of 17 practitioners working holistically. With over 14 years of naturopathic clinical practice, she treats chronic illnesses such as Lyme disease, fatigue, depression, hormonal imbalances, skin problems, allergies and digestive disorders. Amina is extremely passionate about educating others in naturopathy. She has presented at numerous international conferences, medical documentaries, radio, seminars & workshops. She is a regular writer for 'Nature & Health' Magazine and is finalizing her book on naturopathic treatment for Lyme disease and stealth infections.

Introduction: Mould sensitivities and Mycotoxins (produced by fungus or moulds) are becoming an increasing concern in many patients all over Australia especially in Queensland, NSW, SA and Victoria. These mycotoxins are contributing to many chronic symptoms in our most sensitive patients especially those already predisposed to stealth infections and lowered immune response. Microscopic mould spores such as *Aspergillus flavus*, producing mycotoxins called aflatoxins, can cause a plethora of symptoms. Many patients have reported increased symptoms of not only lung, asthma and breathing difficulties but also chronic fatigue, anxiety, headaches, brain fog, depression, joint pains and skin rashes, all due to toxic mould exposure.

Focus of Discussion: This presentation will cover the specific symptoms to look out for, the best laboratory testing for moulds and mycotoxins inside of the body and how to accurately test the external environmental moulds. Learn the genetic susceptibilities, co infections and chronic diseases if mould exposure is left untreated. Receive a guide to the conventional medicines used, their advantages and side effects. Learn the best herbal medicines and naturopathic treatment to use. Discover ways to reduce your patient's exposure to further mycotoxins. Gain protocols for successful treatment outcomes.

Implications: Recognising mould sensitivities in chronically ill patients is an essential part of our naturopathic diagnosis and can be significantly helped with accurate testing, immediate removal of moulds and successful herbal treatment of their mycotoxins.

Treating through the mother - prescription considerations for young infants

Ms Dawn Whitten^{1,2}

¹Goulds Natural Medicine, Hobart, Australia, ²University of Tasmania, Hobart, Australia

Biography:

Dawn Whitten BNat (Hons) IBCLC is a naturopath, herbalist and an International Board Certified Lactation Consultant. She has been in clinical practice for 14 years, mostly in busy apothecary and clinic settings where she has had the opportunity to work with many mothers and babies. She participates in peer-education and is passionate about sharing her lactation knowledge in the naturopathy field. Dawn is part of the collective running Goulds Natural Medicine, an apothecary and clinic, established in Hobart Tasmania in 1881. She also coordinates two units within the Evidence-based Complementary Medicine post-graduate program at the University of Tasmania.

Introduction: The young infant has immature kidney function, xenobiotic metabolism and gastrointestinal barrier function. They are immune naïve. This presents a prescribing challenge. How can we safely and effectively treat infants under the age of five months with natural medicines? How can we first do no harm?

Focus of Discussion: This presentation will review aspects of the young infant's physiology, which may make them vulnerable to adverse reactions after oral ingestion of natural medicines and other substances. The therapeutic potential of working with the mother-baby dyad will be explored. Key prescribing goals will be discussed, including promoting maternal psychological wellbeing, microbiota health, and optimal nutritional status. Particular attention will be paid to at-risk nutrients. The evidence on strain-specific transfer of probiotics into the breastmilk will be reviewed and the potential for therapeutic herbal actions or specific constituents to be transmitted through the breastmilk will be considered. Safety implications will also be discussed.

Implications: The concept of treating the breastfed infant through the mother is not new, but perhaps sometimes forgotten in an era of heavy marketing of baby products. Contemporary insights into infant gastrointestinal development confirms the need for a precautionary approach to prescribing to this age group. Thankfully, many therapeutic actions have the potential to be transmitted through the mother, inviting us to return to this more cautious, and it could be argued more holistic approach.

Breathe well: The fascinating science behind how breathing well can improve health, and how dysfunctional breathing may contribute to disease

Ms Mim Beim

¹Beaming With Health, Kangaroo Valley, Australia

Biography:

Mim Beim is an Australian naturopath with 29 years experience. She has written 9 books, appears regularly on TV and radio, and has written hundreds of articles and over the years has been a columnist for Sydney Morning Herald, Good Health & Medicine, Life Etc., Family Circle and Sunday Telegraph. In 2011, Mim travelled to the US to undergo training as a Buteyko Practitioner with world leading expert Patrick McKeown. Since then, she has taught Buteyko breathing to hundreds of people in group and private workshops. Mim is a member of the BBEA Buteyko Breathing Educators Association and a Fellow of the BPI Buteyko Professionals International.

Introduction: Everyone knows of the beneficial effects of a good diet and exercise, however, rarely is any consideration given to the most important biological process - breathing - and its pivotal role in health and disease. In the 1950's Ukrainian medical researcher, Konstantin Pavlovich Buteyko, was given the bizarre task of monitoring the breathing patterns of terminally ill patients. He became fascinated by the science of breathing, and devoted the rest of his life to developing breathing techniques to help reverse conditions such as asthma and hypertension. Brought to Australia in the 1990's, the Buteyko Breathing method is now undergoing a renaissance of interest.

Focus of Discussion: The Buteyko Breathing technique focuses on rectifying dysfunctional breathing. Signs of dysfunctional breathing include thoracic breathing, frequent sneezing, yawning, throat clearing, sniffing and sighing. While not life threatening, these signs indicate a less than desirable level of circulating carbon dioxide. Carbon dioxide is often pejoratively described as a 'waste gas'. However, suboptimal carbon dioxide levels may result in constriction of smooth muscle, reduced oxygen release (via the Bohr effect) and increased sympathetic nervous system activity. Buteyko breathing exercises predominantly focus on increasing carbon dioxide levels, that over time, via neuro plasticity permanently changing the respiratory centre in the medulla to effectively 're-set' to a more optimal level of carbon dioxide.

Implications: Simple breathing exercises have the ability to improve and even reverse chronic health problems including asthma, sleep apnoea, hypertension, headaches, irritable bowel syndrome, reflux and anxiety. Learn simple breathing techniques you can teach your patients to 'value add' to other treatment protocols.

Is it PCOS or are your adrenal glands overreacting?

Dr Carrie Jones¹

¹*Precision Analytical, Inc, McMinnville, USA*

Biography:

Dr Carrie Jones graduated from the National University of Natural Medicine, School of Naturopathic Medicine located in Portland, Oregon where she was adjunct faculty for many years teaching gynaecology and advanced endocrinology. She completed a 2-year residency in advanced women's health, gynaecology, and hormones and later went on to complete her Master of Public Health at Grand Canyon University. She has been the Medical Director for 2 large integrative clinics in Portland, OR and is currently the Medical Director at Precision Analytical, Inc. She often writes for women's health websites and has published articles on both Yahoo! and Health and Shine. She frequently lectures both nationally and internationally on the topics of women's health, hormones, thyroid and adrenal disorders, celiac disease, food intolerances and more.

Introduction: PCOS can be a difficult condition to diagnose and manage however most practitioners think of it as a problem solely with insulin. It is important to understand that the adrenal glands can produce excess hormones besides cortisol that mimic or present similarly to PCOS. This presentation reviews the role of the adrenals in PCOS, discusses appropriate testing options including androgens, free and metabolized cortisol, and female sex hormones plus provides clinical pearls and a case example to help better address these patients when insulin may or may not be the issue.

Case Summary: 33yo female diagnosed with "PCOS" 1 year ago. She was put on the birth control pill at University and at 32yo wanted to become pregnant therefore she discontinued the pill only to discover her cycles were now quite irregular plus she has been experiencing hair loss and acne as of late.

Outcomes: Testing revealed she was not ovulating, oestrogen dominant, with slightly elevated androgens however her cortisol markers were also quite elevated. She reported very high stress in her life and did not have a typical PCOS picture prior to going on the birth control pill. Efforts were made to reduce her cortisol levels, focus on diet/lifestyle and re-establish regular ovulation with success.

Implications: PCOS is complicated however treatments that focus on insulin and androgens may not be as successful when the HPA axis is upregulated and over-producing hormones that cause similar symptoms. Appropriate testing is important in order to direct appropriate treatment.

The practitioner research and collaboration initiative (PRACI): initial findings and future directions

Dr Amie Steel¹, Dr Janet Schloss¹, Dr Matthew Leach³, Dr Jon Wardle²

¹Endeavour College Of Natural Health, Fortitude Valley, Australia, ²University of Technology Sydney, Ultimo, Australia, ³ University of South Australia, Adelaide, Australia

Biography:

Dr Amie Steel: Dr Steel is the Chief of Investigator for PRACI and the Chair of the PRACI Steering Committee. She is Associate Director - Research at Endeavour College of Natural Health and a Postdoctoral Research Fellow at the Australian Research Centre in Complementary and Integrative Medicine, University of Technology Sydney.

Dr Janet Schloss: Dr Schloss is a member of the PRACI Steering Committee and Senior Research Officer – Survey and Statistics at Endeavour College of Natural Health. Janet also holds a PhD from the School of Medicine at the University of Queensland. She is in clinical practice specialising in oncology as a naturopath and nutritionist in Brisbane.

Dr Matthew Leach: Dr Leach is a member of the PRACI Steering Committee and Senior Lecturer in the School of Nursing and Midwifery at the University of South Australia. Matthew holds an adjunct position with the Australian Research Centre in Complementary and Integrative Medicine at the University of Technology Sydney and is a fellow of the ARCCIM International Complementary Medicine Leadership Program.

Dr Jon Wardle: Dr Wardle is a member of the PRACI Steering Committee, Senior Lecturer in Public Health at the University of Technology Sydney and Director of Policy and Regulation at ARCCIM, UTS. Jon is also the Secretary General of the World Naturopathic Federation and owns a clinical naturopathic practice in Brisbane.

Introduction: The Practitioner Research and Collaboration Initiative (PRACI) is an Australian practice-based research network (PBRN) for complementary health care practitioners and is the largest known PBRN for complementary health care in the world. PRACI was launched in 2015 and since then the foundational database for the network has been established and research projects are underway.

Focus of Discussion: This symposium will overview the achievements of the PRACI project to date and discuss the potential opportunities PRACI affords to naturopathy and herbal medicine in Australia. Dr Amie Steel will present on the establishment of the PRACI project, Dr Janet Schloss will present the findings of the baseline survey which was used to form the PRACI database, Dr Matthew Leach will present demographic and practice characteristics of PRACI members who are naturopaths and herbalists, Dr Jon Wardle will discuss the future opportunities associated with PRACI for the naturopathic and herbal medicine professions in Australia and internationally.

Implications: PRACI provides important infrastructure for complementary health research in Australia and its success relies on practitioners being involved in the research being conducted through the network and the findings from PRACI research being used by practitioner to strengthen patient outcomes and the profession in general. This symposium offers an interactive experience for practitioners to learn more about PRACI, the research and what it means for clinicians.

The right to health, naturopathy and Western herbal medicine in international human rights law

Ms Angela Doolan¹

¹University Of New England, Armidale, Australia

Biography:

Angela Doolan is a final year Bachelor of Laws student at the University of New England, Armidale, NSW. She was awarded a High Distinction for her honours in Law thesis "The Right to Health, Traditional and Complementary Medicine and Naturopathy". She has recently presented aspects of this work as a poster presentation in the International Conference of Naturopathic Medicine in Barcelona in 2016 and has presented at two Global Health and Human Rights Summer Schools in Geneva, Switzerland and Groningen, the Netherlands. She was previously a SCU trained naturopath who worked for six years full time running "Women's Natural Medicine" in Alstonville, NSW. Angela was member of the ARONAH Steering Committee and Foundational Chair of ARONAH from 2010-2013. She also holds degrees in Education and Arts and is the mother of four children.

Introduction: In international human rights law, everyone has a right to health. Globally, traditional and complementary medicine (T&CM) are either the mainstay of health care or are a complement to it. However, despite millions of people using T&CM, my research identified gaps in international law and discourse regarding the right to health and T&CM. I focussed on questions like what is the right to health? And did the scope of the right include a right to T&CM practices like naturopathy and WHM? I also considered whether a new international treaty on the right to health should explicitly include a legally binding right to T&CM and if so, how.

Methodology: I used persuasive, interpretive methodology, developed by an Australian law academic, to analyse international law documents.

Results: My analysis found that the scope of the right to health in international law includes an express right to T&CM and practices like naturopathy and WHM, but it is not a legally binding right. To remedy this, I offered an express and legally binding article on the Right to T&CM for

inclusion in a newly proposed treaty specific to the right to health called *Framework Convention on Global Health*.

Conclusion: By ratifying and implementing an express and legally binding right to T&CM, which is inclusive of practices like naturopathy and WHM, governments may more effectively harness the contribution of T&CM to global health. This could fundamentally reorientate health systems towards more cost effective, wellness and people centred health care in realising the right to health for everyone.

Military intelligence and the naturopathic consultation....not too dissimilar

Mr Andy McIntock¹

¹*Endeavour College Of Natural Health, Sydney, Australia*

Biography:

Mr Andy McIntock is currently studying a Bachelor of Health Science (Naturopathy) at Endeavour College of Natural Health in Sydney. Prior to studying, he was an Intelligence Officer in the Australian Regular Army with a specialisation in improvised explosive devices which included two deployments to Afghanistan. He is currently on the Endeavour College of Natural Health College Council and the Student Representative for the Sydney Campus.

Introduction/Background: There is growing evidence of the value of complementary medicine in military health particularly in post-traumatic stress disorder (PTSD). Whilst naturopathy can support military personnel through tailored diet, lifestyle and herbal medicine, the reverse can also be achieved – military concepts applied to naturopathy.

Focus of Discussion: The purpose of this presentation is to explore military intelligence concepts that can be useful within naturopathy particularly relevant to practitioner critical thinking and appropriate client treatment. The four steps of the military intelligence cycle and how these can be applied to the naturopathic consultation will be discussed. This cycle focuses on defining the environment, analysing internal and external factors on the target (client) prior to determining an appropriate course of action (treatment). Important concepts such as centre of gravity, intelligence gaps, targetable vulnerabilities, decision points and course of action development will be highlighted and related to naturopathy. These concepts and lessons learnt from Afghanistan can be equally applied to integrative medicine and the importance of collaboration. Analysis of naturopathic principles, the consultation process and personal experience has informed the development of this brief.

Implications: Through a military intelligence lens, the intended outcome of this brief is to inspire and provide concepts that can be utilised by practitioners as part of the client consultation. By understanding the internal and external factors present an appropriate course of action for the client can be determined. These concepts can be equally applied by students and integrative medicine clinics.

The importance of professional collaboration for naturopaths, herbalists and general medical doctors

Mrs Amina Eastham-Hillier¹

¹Noosa Holistic Health, Noosa, Australia

Biography:

Amina is a naturopath, medical herbalist & nutritionist and owns a successful multi-modality integrated clinic in Noosa, comprising of 17 practitioners working holistically. With over 14 years of naturopathic clinical practice, she treats chronic illnesses such as Lyme disease, fatigue, depression, hormonal imbalances, skin problems, allergies and digestive disorders. Amina is extremely passionate about educating others in naturopathy. She has presented at numerous International conferences, medical documentaries, radio, seminars & workshops. She is a regular writer for 'Nature & Health' Magazine and is finalizing her book on naturopathic treatment for Lyme disease and stealth infections.

Introduction: Many patients with chronic symptoms have often strived to seek solutions, jumping from one GP to another, a fact we often hear. Building respected professional relationships with general medical practitioners is imperative for today's modern naturopath or herbalist. As we know, many chronic ailments such as anxiety, pain, diabetes and obesity can be easily managed with naturopathic and herbal medicine care. Herbal medicine can be highly beneficial in supporting many conventional medical protocols but gaining acceptance may sometimes prove challenging.

Case summary: Amina will share how her 'predominantly GP-referred' practice breaks these barriers, earning trusted professional collaborations with medical doctors and receiving a constant flow of mainstream referrals.

Outcomes: Gain tips on how to refer to GP's. Learn how to get the medical test results you need and ensure ongoing referrals back to your practice. Understand pharmacogenomics. Know the most valuable functional medicine testing to support regular GP tests. Hear the top 5 herbs most asked for by GPs. Learn practical tools for integrative medicine, bridging the gaps between doctors and naturopaths.

Implications: Professional collaboration between naturopaths, herbalists and medical doctors is absolutely essential for the integrity of our patients and for the sustainable future of integrated herbal medicine practitioners.

11bHSD1 - The cortisol enzyme ruining your weight loss efforts

Dr Carrie Jones¹

¹*Precision Analytical, Inc, McMinnville, USA*

Biography:

Dr Carrie Jones graduated from the National University of Natural Medicine, School of Naturopathic Medicine located in Portland, Oregon where she was adjunct faculty for many years teaching gynaecology and advanced endocrinology. She completed a 2-year residency in advanced women's health and hormones and later went on to complete her Master of Public Health. She has been the Medical Director for two large integrative clinics in Portland, Oregon and is currently the Medical Director at Precision Analytical, Inc. She often writes for women's health websites and has published articles on Yahoo! Health. She frequently lectures both nationally and internationally on the topic of adrenal and hormone health.

Introduction: 11-beta-hydroxysteroid dehydrogenase-1 (11bHSD1) is an enzyme that converts the inactive cortisone into active cortisol. This enzyme occurs in many areas of the body but it is highest in the fat, liver and brain. Those with higher levels of 11bHSD1 are more at risk for cortisol accumulation in the fat tissue leading to even greater fat accumulation and thus expansion of the waistline and a host of other health problems. It's not fair. In about 20 minutes, this presentation's aim is to explain 11bHSD1, how it works in the body, how to test for its activity and common ways to reduce its levels, depending on the case.

Case Summary: 45yo male struggling with abdominal obesity and stagnant weight loss despite his best efforts with diet, exercise, and stress reduction. Testing revealed an upregulated 11bHSD1 and elevated cortisol levels as well as increased oestrogen.

Outcomes: Treatment was primarily focused on continuing the healthy habits he had started but also lowering oestrogen and cortisol specifically by using herbal approaches to lower 11bHSD1 to reduce his waistline. After 3 months, he had lost about 15 pounds and several inches around his waist and was feeling much improved.

Implications: By understanding the role of 11bHSD1 and the activation by adipose tissue of cortisone into cortisol, targeted treatment may help with weight loss efforts especially when it seems the patient is doing "everything right" and neither the scale nor the inches are reducing.

Hepatitis C, the new antivirals and potential herbal adjuvants

Dr Karen Bridgman¹

¹Starflower Pty Ltd, Warriewood, Australia

Biography:

Coming from a background in nuclear medicine, Karen has been practicing as a naturopath for 30+ years at Pymble Grove Health Centre and Australian Biologics Testing services. She has lectured widely at colleges and universities for 30 years including naturopathic colleges, Western Sydney University, and the University of Sydney. Karen's major clinical and research interests are in improving the health of cancer patients, improving the outcomes of patients with various 'controversial' infections (eg mycoplasma, borrelia etc) and neurological conditions. She writes regularly for health magazines and has contributed chapters to many published books on CAM (worldwide). She is also passionate about transformative education and qualitative research.

Introduction: Previous medical treatments for hepatitis C had major side effects and a very high relapse rate. The new antiviral medications are potentially revolutionising infection control for this infection. Yet there is little research on herbal adjuvants, and the liver clinics at the major hospitals are actively discouraging any complementary therapies because of potential interactions – without knowing whether these may be positive or negative.

Case summary: A middle-aged woman had been diagnosed with hep C in 1996. She has been a client for many years and managing the hep C with herbal medicines, refusing medical treatment (interferon and ribavirin) because of the potential toxicity and high relapse rate. However after a severe tooth infection, her LFTs suddenly increased, and she was diagnosed with cirrhosis and ascites. So she agreed it was time to eradicate the virus, and research on the new antivirals indicated significantly better outcomes. With her interest in herbal medicines she also wished to continue with these, ideally to optimise the effect of the pharmaceuticals, knowing it was against the advice of the staff of the liver clinic. This study investigates the changes in the clients medical testing over the course of treatment, the management, both of side effects from the medications and various health issues, with concurrent herbal and nutritional medicines. The monthly monitoring of bloods by the hospital gave us a measure of whether the herbs were having any adverse interactions.

Outcomes: Her LFTs dramatically normalised over the time. We dealt with all her health issues with herbal medicines without adversely affecting the expected rate of improvement.

Implications: Herbal medicines can be used (carefully) as adjuvant therapies to reduce any side effects and/or to treat other health issues, when taken along with the new antiviral therapies for treating Hepatitis C.

Beyond the prostate: Recent insights into the causes and treatment of lower urinary tract symptoms in men

Mr Daniel Robson¹

¹*Goulds Natural Medicine, Hobart, Australia*

Biography:

Daniel Robson graduated with a Bachelor of Naturopathy in 2002, and has been in clinical practice since then. Daniel is part of a collective who operate Goulds Natural Medicine, a historic, iconic apothecary and clinic in Hobart Tasmania. This has seen him involved in a busy dispensary & clinic, the growing and tincturing of high quality certified organic herbs, and the implementation of the Goulds internship program. Daniel has also lectured to professional audiences on men's health issues and paediatrics. In his clinical practice, Daniel has a particular interest in how naturopathic clinicians can best support men's health and vitality.

Introduction: The development of lower urinary tract symptoms (LUTS), historically attributed to benign prostate enlargement, is a common experience for aging men, and thus a common presentation to the naturopathic clinician. Recent understandings of this age-related phenomenon have identified that whilst prostate enlargement is a potential cause of male LUTS, non-prostate related pathological or functional causes are also implicated, emphasising a need to move away from an entirely prostate-centric approach in symptom evaluation and management.

Focus of discussion: In this presentation, Daniel will explore key contributors to the development of LUTS in aging men, in particular the role of cardiovascular health and inflammation. Current insights into the aetiology of male LUTS point to potential innovative treatment approaches available to the naturopathic practitioner, the evidence and clinical applicability of which will be explored.

Implications: This presentation is thus intended to expand clinicians understanding of this common area of men's health, and identify innovative and comprehensive treatment approaches.

Clinical application of Ginkgo, Ginger and Ginseng (the '3 Gs'), as adjunctives to drug treatments for chronic health conditions

Mr Phil Rasmussen

¹Phytomed Medicinal Herbs Ltd, Auckland, New Zealand

Biography:

Phil is an experienced phytotherapist with a clinic in Auckland where he has practiced for 23 years. He is also the founder and Technical Director of Phytomed Medicinal Herbs Ltd, a New Zealand-based manufacturer of herbal medicines for both practitioners and consumers. Before pursuing herbal medicine he worked for more than 10 years as a pharmacist, and undertook research on antidepressant drugs and serotonin. He has lectured to naturopathy, herbal and pharmacy undergraduates, presented at conferences in New Zealand, Australia, and the UK, and written extensively on herbal subjects for both practitioner and consumer publications, for many years.

Introduction: As the 21st century rolls on, human health & wellbeing is becoming increasingly impacted by chronic health conditions such as diabetes, cardiovascular disease, dementia, mental health, and arthritis. Current drug-focused treatment protocols for these debilitating conditions are, however, often inadequate, and adverse effects and clinical outcomes associated with these, often unacceptable. Moreover, the pharmacoeconomic impact of conventional management of these chronic conditions on an increasingly constrained health budget, is cause for serious concern, and becoming a major public health issue. A more preventive and integrative medical approach is therefore urgently required to better manage these conditions.

Focus of discussion: Of various complementary therapies available, herbal medicine in particular, is known to have much potential to positively complement drug-based treatments. A large number of plant-based medicines exhibit properties, which suggest they would combine favourably with these drug treatment regimens. Of these, three show particular promise, ginkgo, ginger and ginseng (the '3 Gs'). This presentation will provide evidence from a review and appraisal of the clinical and other scientific evidence for these as being useful adjunctives when taken alongside various widely used conventional drug medications.

Implications: The objectives of such complementary treatment are improved treatment outcomes, reduced drug adverse effects, and substantial savings in drug and other health care costs. Further development of appropriate clinical protocols to encourage the prescribing of one or more of these three phytomedicines as part of an integrative approach in diabetes mellitus, mental health, substance dependency conditions, cancer, neurological decline and other chronic conditions of the modern world, will be encouraged.

Finding the balance in tradition and science: the perspectives of students, educators and professional leaders in naturopathy

Dr Amie Steel^{1,2}

¹Endeavour College Of Natural Health, Brisbane, Australia, ²ARCCIM, University of Technology Sydney, Ultimo, Australia

Biography:

Dr Steel is Associate Director - Research at Endeavour College of Natural Health and a Postdoctoral Research Fellow at the Australian Research Centre in Complementary and Integrative Medicine, University of Technology Sydney. She is also the Chief of Investigator for Practitioner Research and Collaboration Initiative (PRACI) and the Chair of the PRACI Steering Committee. Amie's current research focus includes a diverse area of complementary medicine (CM) including women's health, CM curriculum development and delivery, integration and regulation of CM, and the interface between evidence-based medicine and CM practice.

Introduction: The relative value of traditional knowledge and practice and contemporary scientific research is one of the most controversial aspects of naturopathic medicine. In response to the growing interest in evidence-based medicine across many areas of health, naturopathic doctors have had to develop their own understanding of evidence within the context of a strong history of traditional knowledge and the prevailing dominance of reductionist clinical research models.

Methods: In 2015, a research project was initiated to examine the interface between traditional knowledge and scientific research for naturopathic doctors. The study involved seven focus groups with students of naturopathic degrees (n=29) and semi-structured interviews with naturopathic academic and professional leaders (n=27) in both North America and Australia.

Results: For students, the need for balance between these two differing sources of wisdom and knowledge was identified, although there were some differences in how this balance should and does manifest at the moment. The views of naturopathic academic and professional leaders suggested a need for stronger skills in critical appraisal of research among naturopathic doctors to inform clinical decisions. There was also a view that traditional knowledge offers an opportunity to fill gaps in the evidence-base for naturopathic care, and no obvious interest in critically appraising traditional sources of evidence.

Conclusion: Naturopathic educators and students are facing the challenge of balancing tradition and science and stronger skills in critical thinking may provide the solution to ensuring the continued success of the profession.

Making sense of integrative health care

Dr Matthew Leach¹

¹*University Of South Australia, Adelaide, Australia*

Biography:

Dr Matthew Leach, is a Senior Research Fellow at UniSA. He is also a registered nurse and naturopath. Dr Leach has made a significant contribution to the field of complementary and integrative medicine since commencing his PhD fourteen years ago. He has published more than 74 journal articles, four book chapters and a sole-authored textbook, and has attracted over 887 citations for his work. Dr Leach is also a member of several journal editorial boards and government committees, has been awarded a competitive research fellowship with ARCCIM, and has been awarded more than AU\$975,000 in competitive research grant funding.

Introduction: Interest in the integrative health care (IHC) approach has escalated in recent years, with the number of publications, academic chairs, associations, forums and centres of IHC increasing across the globe. However, there is still no consensus on what IHC actually is, or what the term denotes. As a result, inconsistencies and misperceptions about IHC ensue.

Methods: The proposed definition was informed by a grounded theory approach, in which 54 Australian stakeholders (including consumers, conventional health care providers and complementary health care providers) were interviewed about their perspectives and understandings of IHC. General and specific themes were identified from the verbatim text. Themes were then drawn from a documentary analysis of relevant society/agency documents. Both sets of themes were used to create a series of definitions of IHC.

Results: Seven themes emerged from the interview data and documentary analysis. These themes included: interdisciplinarity, holism, health promotion, respect, access, client-centeredness and evidence-based practice. These themes were used to formulate multiple definitions of IHC for deliberation. A single definition was agreed upon by consensus.

Discussion/Conclusion: The development of an unambiguous definition of integrative health care is critical to establishing a clearer identity for IHC and IHC practitioners, as well as serving to provide greater clarity for consumers, other health care providers and policy makers. In recognising the need for a clearer description of IHC, we propose a theoretically-grounded, stakeholder-informed definition of IHC.

The traditional naturopathic treatments utilised for the management of endometriosis and associated symptoms

Miss Rebecca Reid^{1,2}

¹Endeavour College Of Natural Health, Brisbane, Australia, ²University of Technology Sydney, Ultimo, Australia

Biography:

Rebecca Reid is a PhD student at the University of Technology Sydney and is one of the appointed Visiting Scholars for the International Naturopathy Research Leadership Program at the Australian Research Centre in Complementary and Integrative Medicine (ARCCIM) at UTS. Rebecca is also employed at the Office of Research at Endeavour College of Natural Health.

Introduction: Naturopaths are educated to use a variety of disciplines in the care of women experiencing menstrual disorders such as endometriosis. However, to date there is limited research on naturopathic prescribing practices for these conditions, both from a traditional and contemporary viewpoint.

Methods: A document analysis of traditional texts relating to the practice of naturopathy was undertaken at the National University of Natural Medicine, Portland Oregon through their Rare Books collection. Traditional texts were included if they described the naturopathic treatment for endometriosis or associated symptoms such as dysmenorrhea and menorrhagia and where the author had a clear connection to the naturopathic profession.

Results: A total of 37 traditional texts and 45 traditional journals within the year range of 1800 to 1942 were included. A majority of texts describe the use of herbal medicine for the treatment of endometriosis-associated symptoms of dysmenorrhea and menorrhagia. Of the mentioned herbal medicines, Blue Cohosh, Black Cohosh, Black Haw, Cramp Bark, Ergot and Golden Seal were frequently mentioned. A number of the selected texts described homeopathic remedies, hydrotherapy and lifestyle interventions for the management for dysmenorrhea and menorrhagia.

Discussion: There is a rich history of traditional naturopathic texts that describe the use of herbal medicine in the management of dysmenorrhea and menorrhagia. Although endometriosis was discovered in 1927 and none of the assessed texts explicitly stated the disease, yet a number of texts described an ambiguous condition of hysterics and menstrual malfunction with presentation of other symptoms, which may be indicative of endometriosis prior to its discovery.

Tradition and science: are they mutually exclusive and the way forward now.

Ms Helene Diezel^{1,2}, Dr Amie Steel^{1,2}, Dr Matthew Leach^{2,4}, Dr Sue Evans³, Ms Randa Karzon¹, Ms Rebecca Reid^{1,2}

¹Endeavour College of Natural Health, Brisbane, Australia, ²Australian Research Centre in Complementary and Integrative Medicine, Sydney, Australia, ³University of Tasmania, Hobart, Australia, ⁴University of South Australia, Adelaide, Australia

Biography:

Dr Amie Steel: Dr Steel is Associate Director - Research at Endeavour College of Natural Health and a Postdoctoral Research Fellow with Australian Research Centre in Complementary and Integrative Medicine, University of Technology Sydney. Recently, Amie has undertaken research spanning North America and Australia exploring research and traditional evidence tensions in naturopathy.

Dr Matthew Leach: Dr Leach is a Senior Research Fellow, Senior Lecturer and Research Degree Coordinator within the School of Nursing and Midwifery at the University of South Australia. He is also a registered nurse and naturopath. Dr Leach is a member of several journal editorial boards, government and industry committees, was awarded a competitive Research Fellowship with the Australian Research Centre in Complementary & Integrative Medicine, and secured more than AU\$975,000 in competitive research grant funding.

Dr Sue Evans: Since finishing herbal training at the UK School of Herbal Medicine in 1982, Sue has completed a PhD and participated in shaping and documenting changes in Australian herbal medicine through various roles including clinician, educator and researcher. Sue's experiences have underscored the equal importance of herbalists maintaining and using traditional plus scientific understandings. She is a Senior Lecturer in Complementary Medicines at University of Tasmania.

Ms Randa Karzon: Randa is a qualified naturopath, holistic counsellor and medical intuitive practitioner with 15 years' experience. As a lecturer and clinician, she incorporates science, traditional medicine and her own traditional cultural knowledge to provide comprehensive and holistic health understandings including mind, body, emotions and spirituality. Randa's holistic approach is based on years of education, experience and a genuine interest in others; integrating sound scientific evidence with an awareness of the link between mind, body and spirit.

Ms Rebecca Reid: Rebecca is a graduate of a Bachelor in Health Science (Naturopathy) at Endeavour College of Natural Health (ECNH) and a successful Student Summer School Research program applicant in 2014. Undertaking her PhD at the Australian Research Centre in Complementary and Integrative Medicine (ARCCIM), University of Technology Sydney (UTS), she was also appointed Visiting Scholar at ARCCIM's International Naturopathic Research Program and is Team Administrator for Research at ECNH's Office of Research. As part of her PhD, Rebecca completed data collection at the National University of Natural Medicine (NUNM) in Portland, Oregon, through their Rare Books collection; investigating naturopathy and endometriosis from traditional and contemporary perspectives.

Introduction: Development of the hierarchy of evidence that has evolved predominately in conventional health care over the last 200 years, has been largely independent from processes used to gather and build traditional evidence in complementary health care, such as naturopathy and herbalism. This presents unique challenges and opportunities for complementary health care providers who draw on traditional evidence and traditionally supported practices. In the prevailing evidence-based practice culture that pervades all contemporary health care decisions, the apparent 'tradition vs science' dichotomy is a unique and worthwhile topic of discussion. Facilitation of a balanced and thoughtful conversation on this issue may help highlight some of the perceptions and misperceptions of tradition and traditional evidence and science and scientific evidence.

Focus of Discussion: This panel will discuss what is considered tradition and traditional evidence and the difference and/or similarity to what is considered science and scientific evidence. The facilitator will pose questions to the experts regarding ways scientific evidence and traditional evidence co-exist and what this means for complementary medicine practitioners, complementary medicine teaching tradition and graduates' preparedness for effectively navigating tradition and science in practice.

Implications: A panel of experts discussing tradition and science will be beneficial to practitioners navigating the evidence-based practice maze whilst trying to marry traditional and scientific evidence in clinical practice. The expert's perspectives will provide a rich exploration of where evidence comes from, how it is formed, critiqued and impacts on approaches to health. This will contribute to a much needed larger conversation about the direction, use and influence of health evidence in contemporary health care.

Is individualised herbal medicine practice effective for relieving anxiety and/or depression? A systematic review and naturalistic observation study.

Mr David Casteleijn^{1,2,3}

¹*Australian Research Centre in Complementary and Integrative Medicine, University of Technology Sydney, Australia;* ²*Endeavour College of Natural Health, Brisbane, Australia;* ³*Herbs on the Hill, Brisbane*

Biography:

Initially studying psychology followed by nursing and then naturopathy, David Casteleijn developed a special interest in anxiety and depression while working in a counselling-focused multi-modality practice. Co-founder and co-owner of Herbs on the Hill, a naturopathic general practice in inner-city Brisbane, David also lectures at Endeavour College of Natural Health (specifically herbal medicine and clinical practice subjects) and is a PhD candidate at ARCCIM UTS.

Introduction: Anxiety and depression are widespread and significantly debilitating in the community. They are also conditions for which people consult a naturopath/herbalist. The government-commissioned NHMRC report into the effectiveness of natural medicine found there was no evidence that herbal medicine as a practice worked despite the large volume of evidence they identified supporting the benefit of specific herbs in various conditions. This observation study sets out to answer this issue and provide a framework for future research.

Methods: A comprehensive literature review of research on individualised herbal medicine was conducted to identify previous work in the area. Eight papers were selected from a total of 1081 initial results. All papers involved Chinese herbal medicine with a number comparing a fixed formula with an individualised formula. All grappled with the complexity of measuring individualised treatment in order to assess the outcome of treatment based on a naturalistic observation style. For the observation study, 200 participants will be recruited across 3 to 4 clinical settings to be treated by 10 to 15 different practitioners. Practitioners will treat the participant individually based upon their clinical assessment. The participant's condition and progress will be monitored (using four validated measures) across three consultations. The prescription can be varied at each consultation as the practitioner sees fit.

Results: Herbal medicine practice is, at its core, individualised and as such, it is argued, does not fit at all well into the random controlled trial (RCT) research model. By observing and measuring the outcomes of regular herbal medicine practice, this proposed model is designed to fill this important gap. Furthermore, as there are few exclusion criteria many participants are expected to be concurrently prescribed pharmaceutical anxiolytics and antidepressants, and so this research can also assess how effective a supportive role herbal medicine practice can provide in this situation.

Discussion: The systematic review identified that developing an alternative model to the standard RCT is critical. If successful, the proposed observation model can provide the basis for further research into a large range of conditions by various natural medicine modalities.