Request to shut down RMIT Chiropractic Paediatric Clinic

for teaching disproven treatments
that target pregnant women, babies,
infants and children

Loretta Marron

Introduction

In 2008 UK science writer Simon Singh was sued for libel by the British Chiropractic Association (BCA) after giving his correct and honest opinion that many chiropractors were making 'bogus' claims.

Here in Australia we watched in disbelief as he nearly lost that battle, which would have meant that even our scientists and health professionals also risked being silenced. It seemed that they too could be sued in the UK if they told the truth.

In many countries, people from all walks of life signed petitions and supported Singh, and in 2010 when the BCA dropped its suit - two years after the case had begun - the fight was over.

This was not just a win for freedom of speech; this was also a win for evidence-based medicine and scientific debate. With the research now available as to what chiropractic can and can't do, it also highlighted the false and misleading claims made by our own chiropractors on their websites.

I asked myself why some of our chiropractors where actively promoting chiropractic as an alternative to vaccination and to treat pregnant women, babies, infants and children for a wide range of health conditions.

I soon realised that our 'chiropractic universities' were clearly implicated.

Armed with evidence, research and expert opinion from both Australia and the UK, on 16 March 2011 I posted this report to the Federal Health Minister.

My thanks to Simon Singh and the trans-Atlantic alliance of medical professionals who willingly gave their time and support in its preparation.

Executive Summary

"Certainly in Britain, and apparently around the world, the chiropractic profession is unable to properly police itself. The good chiropractors and the chiropractic societies seem unable or unwilling to highlight and stop the bad chiropractors who make unscientific claims and who unfairly raise the hopes of patients. Moreover, every medical intervention carries a risk, so those chiropractors who offer treatments that go beyond the evidence are not only hurting patients in the pocket, but possibly also harming their bodies."

Simon Singh PhD MBE, co-author of Trick or Treatment? Alternative Medicine on Trial (2008)

Universities are meant to contribute to society "through the pursuit of education, learning and research at the highest international levels of excellence".

It is high time that universities returned to their core principles and dropped pseudoscientific courses which lead to attacks on vaccination and the promotion of expensive, useless and potentially harmful treatments.

This report claims that the Royal Melbourne Institute of Technology (RMIT) Chiropractic Paediatric clinic is teaching inappropriate and potentially dangerous techniques that target pregnant women, babies, infants and children, and requests that the clinic be shut down until such time as evidence can be produced that these treatments support the claims made by the course lecturers.

Parents of sick children are a particularly vulnerable group, easily exploited by chiropractors. Children are not able to make their own decisions and parents need good information about the benefits and risks associated with the choices they make in their families' health care. With the growth in numbers of chiropractors promoting chiropractic as a substitute for proven treatments and for vaccination, I believe that a re-education campaign should be urgently initiated to provide information to both consumers and chiropractors as to what they can or cannot claim, based on the balance of evidence-based medicine.

I believe that these teachings are not restricted to RMIT, and would like to request that other institutions offering chiropractic courses, including Murdoch and Macquarie Universities, be investigated as well.

In this report I have:

- included letters from high profile and well-regarded Professors of Medicine relating to supposed efficacy of chiropractic;
- identified the claims made by lecturers and graduates from RMIT and other chiropractic teaching institutions;
- identified the relevant codes of conduct that are breached by graduates;
- recommends that the competency and education standards for chiropractors be reviewed;

- identified research relating to spinal manipulation on a wide range of health conditions;
- included expert opinion from both Simon Singh and other appropriate medical experts and specialists;
- referred to the General Chiropractic Council (UK) on comments on 'subluxations' and evidence-based practices;
- referred to the HCCC anti-vaccination campaign which is supported by over 120 chiropractors;
- referred to a recent US-based court case which limits chiropractic diagnoses to biomechanical conditions of the spine and musculoskeletal system.

My argument is as follows:

16 March 2011

Minister for Health and Ageing. MG 50 Parliament House Canberra ACT 2600

The Hon Nicola Roxon MP

Re: Request to close down RMIT Paediatric Clinic for teaching disproven/unproven Chiropractic treatments for a wide range of health conditions.

"You're not allowed to mistreat animals, but humans can be sold worthless promises by charlatans and nobody does anything about it."

AMA President, Dr Gino Pecoraro, MB BS FRANZCOG Obstetrics & Gynaecology, Secretary for RANZCOG

The RMIT is teaching potentially harmful theories and techniques to chiropractic students that target pregnant women, babies, infants and children. I would like to request that the RMIT Chiropractic Paediatric Clinic be investigated and shut down until such time as evidence can be produced to support the claims made for these chiropractic treatments.

Parents of sick children are a particularly vulnerable group easily exploited by chiropractors. Children are not able to make their own decisions and parents need good information about the benefits and risks associated with the choices they make in their families health care.

With the growth in numbers of chiropractors promoting Chiropractic spinal manipulation as a substitute for proven treatments and vaccination, I would also like to request that other institutions offering chiropractic courses, such as Macquarie and Murdoch Universities, be investigated as well.

I believe that these organisations are graduating students who continue to make false and misleading claims to patients based on course content and that a re-education campaign be urgently initiated to provide information to both consumers and chiropractors as to what chiropractic can or cannot claim, based on evidence-based medicine.

This report looks at chiropractic:

- Background Information
- RMIT course content
- Website claims
- Expert opinion
- Research
- Adverse events of spinal manipulation
- Paediatric concerns
- Standards for competency and education in chiropractic
- US-based outcome of chiropractic court case
- Examples of practitioner websites (NSW)

Included in this report are the following:

- Letters of support (Appendix A)
- Chiropractic brochure "Vaccinations: 18 Reasons to Just Say No." (Appendix B)
- Excerpts from research (Appendix C)
- Chiropractic background information (Appendix D)
- HCCC public warning on the Anti Vaccination Network (AVN) and NSW chiropractic membership (Appendix E)

Background information

General Chiropractic Council (UK)

On May 25, 2010, The General Chiropractic Council (GCC), a UK-wide statutory body with regulatory powers, issued the following statement:

According to the General Chiropractic Council (UK):

"The chiropractic vertebral subluxation complex is an historical concept but it remains a theoretical model. It is not supported by any clinical research evidence that would allow claims to be made that it is the cause of disease or health concerns."

This document also states that chiropractors:

"... must provide evidence based care, which is clinical practice that incorporates the best available evidence from research".

and that"

"... any advertised claims for chiropractic care must be based only on best research of the highest standard (GCC Guidance on Advertising issued March 2010).ⁱ

Anti-Vaccination

Chiropractics frequently discourage vaccination of children.

"Most chiropractic writings on vaccination focus on its negative aspects," claiming that it is hazardous, ineffective, and unnecessary. ... A significant portion of the profession rejects it, as original chiropractic philosophy traces diseases to causes in the spine and states that vaccines interfere with healing."

On 26 July 2010 the Health Care Complaints Commission (HCCC) warned the public to beware of taking advices and information from the Australian Vaccination Network (AVN) website. iii

"The Commission's investigation established that the AVN website:

- provides information that is solely anti-vaccination
- contains information that is incorrect and misleading
- quotes selectively from research to suggest that vaccination may be dangerous."

The AVN was linked to 120 chiropractors, including 45 from New South Wales, many of whom are offering free initial consultations to AVN members.

HCCC Code of Conductiv

The HCCC Code of Conduct is now considered the 'gold standard', and similar codes are being considered in other states, including Queensland. The claims made by chiropractors are in breach of Codes 3.1, 3.2(a), (b), (c), (d), 5, 11 and 12.

These codes require that health practitioners:

- 3. "provide services in a safe and ethical manner".
 - This code is breached by chiropractors who use spinal manipulation, which can result in adverse events, on children for a wide range of self-limiting and serious conditions including asthma. Chiropractors are not paediatricians and should not be treating childhood health conditions.
- 5. cannot "make claims to cure certain serious illnesses".

While some of these sites do not make direct claims, they imply them in their advertising (statements such as "Why Patients See Us" and "10 reasons parents take their children to see a chiropractor") that they can cure a wide range of serious health conditions such as allergies, ADHD, asthma and depression.

11. "require a clinical basis for treatments".

There is no evidence that chiropractic can treat or cure any non-musculoskeletal condition.

12.should "not misinform their clients".

There is no proof of efficacy for spinal manipulation in the treatment of any non-musculoskeletal health condition.

A number of these chiropractors are members of the Australian Vaccination Network (AVN) and are offering free first consultation to parents.

Chiropractic Code of Conduct^v

The claims made by these chiropractors are in breach of Codes 2.2 (a), (b), (f), (h) and (o).

These sections relate to 'Good Care' and states that chiropractors are required to:

2.2(a) "recognise and work within their limits of competence" and that are required to "seek advice from or refer their patients to a more suitably qualified practitioner when it is considered in the patient's best interests".

These chiropractors are claiming that removing "vertebral subluxations" can be used to treat a wide range of health conditions. For children, in particular, they are not paediatricians and any claims that they can treat childhood complaints such as asthma, colic, otitis media and tunnel vision with spinal manipulations are not backed by evidence-based medicine.

2.2(b) "Maintaining adequate knowledge and skills to provide safe and effective care"

There is mounting evidence that treatments offered by many chiropractors, specifically those that are not related to non-musculoskeletal conditions, are now considered as either negative or inconclusive. Claiming to treat serious conditions such as asthma, allergies and hypertension put patients' lives at risk.

2.2(f) "Considering the balance of benefit and harm in all clinical management decisions"

Many of the claims relating to health conditions for children, pregnant women and seniors, that spinal manipulation can treat a wide range of health condition, such as asthma, allergies and hypertension, delay proven treatments and may put patients' lives at risk.

2.2(h)/(o) "Providing treatment options based on the best available information" and "Practising in accordance with the current and accepted evidence base of the chiropractic profession, including clinical outcomes"

There is a mounting body of evidence, including research listed on international Chiropractic Councils' websites, that many treatments offered by chiropractors are not effective and are linked to serious adverse events.

Vertebral Subluxations

The fundamental principle of chiropractic, which continues to be promoted in Australia, is that all 'disease' is the result of subluxations of the spine causing pressure on nerves and inhibiting the transmission of the signals which allow the 'innate intelligence' of the body to heal itself.

According to Phillip Ebrall, BAppSc (Chiropractic), PhD, FICC, FACC, Associate Professor of Chiropractic Education and Discipline Head, RMIT:

"Chiropractic may well be beneficial in patients suffering subluxation, particularly of the upper neck (cervical spine) that causes altered signals to reach the brain, resulting in mental discomfort, decreased thinking ability, headache and other symptoms."

For babies and children, claims are made that these 'subluxations' are caused from birth.

According to chiropractic teachings:

"Natural birth can cause Subluxations, not to mention a more complicated birth. The most common area for Subluxation in babies is the upper cervical (neck) area and the base of the skull. The significance of this area is that the delicate tissues being protected here include the brain stem; which is the switchboard for the organs. This is the reason that babies can experience digestive problems and breathing difficulties and why the immune system can become suppressed.

"Sometimes it is apparent that there is a problem while at other times it isn't so obvious. The important thing is to have your baby and yourself checked as soon as possible after the birth to help clear Subluxations so you can establish breastfeeding and settle into a good routine.

"Regular checkups during pregnancy & after birth are essential for the family."

And that the benefits of pre and post-natal chiropractic care for mother and babies include:

- "Normalizes hormone function
- "Decreases the duration of labour and the intensity of pain
- "Decreases medication use therefore a more alert baby
- "An alert baby allows easier establishment of breastfeeding
- "Decreases the risk of post natal depression
- "More active labour and better recovery"

 vi.

There is no evidence that the 'vertebral subluxations' that chiropractors use spinal manipulation to remove actually exist, nor is there any evidence to support 'innate intelligence'. Manipulation does not remove 'irritations', change 'inflammations' nor can it restore 'bio-mechanics'.

There is no evidence that misalignments in the spine interfere with your body's normal function.

Cause of Disease

Chiropractic philosophy states that most (80%+) diseases are caused by 'vertebral subluxations' and can be cured by spinal manipulation (SM). There is no evidence to support this claim.

RMIT - Paediatric Course Content

In 2005, a newsletter was circulated which announced that:

"A paediatric clinic has been established at the Bundoora clinic to provide assessment and care of children and infants."

While the specific details of the Paediatric Course are not available on line, one of the lecturers has posted information on their website.

"My wife, Dr. Navine Haworth .. is also a board certified Paediatric Chiropractor to help treat children.

"She is also an instructor at RMIT Chiropractic College and helps run the RMIT paediatric clinic.

"Many conditions that we often treat children for include allergies, asthma, 'growing pains', headaches, ADD, and ADHD." "

Practitioner Website Claims

Claims made by chiropractors include that 80% of all ill health is cause by damage to the back and that chiropractic spinal manipulation (SM) can prevent, treat or reduce the symptoms of the following childhood conditions:

Allergies Earaches
Asthma Epilepsy

Bed-wetting Eye problems (including tunnel vision)

Bell's Palsy Fever
Bipolar Infection

Clumsiness Interrupted sleep

Co-ordination problems Irritability

Colic Learning & behavioural problems (eg ADHD)

Congenital Hip Dysplasia

Constipation

Cough

Croup

Seizures

Scoliosis

Deformational plagiocephaly (flat spots on the head)

Stomach ache

Tonsillitis

Diarrhoea Vaccine preventable infections

Digestive problems

Other claims include that SM can prevent, treat or reduce the symptoms of the following conditions:

Anxiety Numbness

Arthritis Perthes Syndrome

Bronchitis Repetitive Strain Injury (RSI)
Cancer (anecdote) Sacro-Iliac Dysfunction

Carpal Tunnel Syndrome Sciatic pain
Chronic Fatigue Syndrome Sinusitis
Diabetes Skin Disorders

Eczema Smoking and Alcohol addiction

Fatigue Stress
Fertility PMS

Fibromyalgia Thyroid issues
Gall Bladder Problems TMJ Dysfunction

Headaches & MigrainesUlcersHypertensionWeaknessIrritable Bowel SyndromeWhiplash

Neurogenic Claudication

There is no evidence that chiropractic works any better than placebo for these health conditions.

Expert Opinion

I asked Dr Simon Singh PhD MBE, the renowned British science writer, for advice. In 2008, a libel case was brought against Dr Singh by the British Chiropractic Association for Dr Singh's criticism, published in a column in *The Guardian* newspaper, of the BCA's activities.

A "furious backlash" to the now dropped lawsuit resulted in the filing of formal complaints of false advertising against more than 500 individual chiropractors within one 24 hour period, one national chiropractic organisation ordering its members to take down their websites, and *Nature Medicine* noting that the case had gathered wide support for Singh, as well as prompting calls for the reform of English libel laws.

On 1 April 2010, Simon Singh won his court appeal for the right to rely on the defence of fair comment. On 15 April 2010, the BCA officially withdrew its lawsuit, ending the case.

Dr Singh is the co-author of Trick or Treatment? Alternative Medicine on Trial (2008).

In a personal email to me Dr Singh wrote:

"Certainly in Britain, and apparently around the world, the chiropractic profession is unable to properly police itself. The good chiropractors and the chiropractic societies seem unable or unwilling to highlight and stop the bad chiropractors who make unscientific claims and who unfairly raise the hopes of patients. Moreover, every medical intervention carries a risk, so those chiropractors who offer treatments that go beyond the evidence are not only hurting patients in the pocket, but possibly also harming their bodies."

As I am not medical, I also asked for the advice of a number of health care professionals:

These include:

- Prof John Dwyer AO FRACP, FRCPI, PhD, Doc ACU, Emeritus Professor of Medicine UNSW,
 Chair of the Australian Healthcare Reform Alliance
- Prof Jenny Couper, Head of Discipline of Paediatrics, The University of Adelaide, Dept of Endocrine and Paediatrics, Women's and Children's Hospital
- Prof Ian Frazer, MB, ChB Edin., MD Melb., Director, Diamantina Institute, Research Leader, Epithelial Cancer Division
- Prof David Colquhoun, FRS, Professor of Pharmacology, University College London, Fellow of the Royal Society, UK
- Prof Alastair H. Maclennan, Head of Discipline of Obstetrics & Gynaecology, School of Paediatrics & Reproductive Health, The Women's and Children's Hospital, The University of Adelaide
- Prof Chris B Del Mar MA MB BChir MD FRACGP FAFPHM Professor of Primary Care Research, Faculty of Health Sciences and Medicine, Pro Vice Chancellor (Research), Faculty of Health Sciences and Medicine, Bond University
- Prof Nikolai Bogduk BSc(Med), MB, BS, PhD, MD, DSc, MMed, FAFRM, FFPM(ANZCA),
 Conjoint Professor of Pain Medicine, University of Newcastle
- Prof Edzard Ernst, MD, PhD, FMed Sci, FSB, FRCP, FRCP (Edin.) Professor of Complementary Medicine, Peninsula Medical School, Exeter, UK, (and co-author with Dr Singh of the book *Trick* or *Treatment*)
- Assoc/Professor John Eden, MB BS MD FRCOG FRANZCOG CREI, Associate Professor of Reproductive Endocrinology UNSW, Director Barbara Gross Research Unit RHW, Director Sydney Menopause Centre RHW Director Women's Health and Research Institute of Australia
- Dr Robert H Loblay MB BS, PhD, FRACP, Senior Lecturer in Immunology, Department of Medicine, University of Sydney, Director, Allergy Unit, Department of Clinical Immunology, Royal Prince Alfred Hospital
- Prof Joseph Forgas DPhil, DSc. (Oxon), Scientia Professor of Psychology, FASSA, University of New South Wales

I asked Prof Dwyer the about the claims made for Chiropractic by RMIT.

According to Prof Dwyer:

"The response Loretta received from Head of Discipline Professor Phillip Embrall, which is included with her submission, is positively frightening. Subluxations of the cervical spine causing pressure on cervical nerves is a medical emergency requiring expert neurological management."

I asked Prof Couper about the evidence for chiropractic in paediatric care.

According to Prof Couper:

"I am aware of no evidence for effective treatment provided by chiropractic in this age group. Many of the complaints that some chiropractors offer to treat in children are not musculoskeletal and may improve spontaneously or require specific medical treatment that is evidence-based. Parents often seek other practitioners' advice outside the traditional areas of medicine when they are unhappy with the child's progress or, indeed, unhappy with their local medical practitioner's approach. In up to 70% of cases, there is a strong placebo effect from seeing an empathic practitioner, despite the fact that the actual treatment is not having any benefit. This makes it impossible to assess any treatment without robust scientific data and I am unaware of this being available for chiropractic.

"If a child does have a more serious condition and is receiving chiropractic treatment, this could delay an important diagnosis and necessary treatment. Another concern is the advice from some chiropractors to not vaccinate children, when there is the highest level of scientific evidence for the benefits of vaccinations.

"I fully support your call for tertiary education institutions to reconsider their support of education of chiropractic students for the treatment of childhood disorders."

I asked Prof Frazer about the risks to children when chiropractors actively oppose vaccination.

According to Prof Frazer:

"Advice to withhold vaccines is not in the public interest, and nor is it in the interests of the individual denied vaccination, notwithstanding the small possibility of an adverse reaction to the vaccine. However, in a free society, the choice lies with the individual and for children, their legal quardian.

"That notwithstanding, any suggestion that chiropractic could substitute for vaccination is without evidence, and therefore promoting such an idea, especially by a registered health care professional, should not be permitted except in the context of an ethically acceptable trial, which would be hard to conceive a design for."

I asked Prof Colquhoun about the chiropractic situation in the UK.

According to Prof Colquhoun:

"The principles of chiropractic are no better that witchcraft. The idea that just about any disease originates from some problem in the spine is pure rubbish. It was known to be wrong even at the time it was invented by Daniel Palmer in the 1890s. He was a grocer, magnetic healer and allround fairground salesmen, but above all he was a salesman.

"The core business of chiropractors is back pain, but even for back pain there is no evidence that chiropractors are more effective than any other manipulators, like physiotherapists. Almost all the other claims are simply bogus.

"In the UK, the General Chiropractic Council (GCC) received over 600 complaints for false health claims made by almost all chiropractors. In response, the GCC have been forced to admit that there isn't the slightest reason to think that 'subluxations' exist. Subluxation is a made-up word that

is used to describe invisible lesions of the spine that, they claim, cause all manner of diseases. Now they are not allowed to use that word, chiropractic is in meltdown."

I asked Prof MacLennan of the risks and benefits of chiropractic for pregnant women, babies and children.

According to Prof MacLennan:

"There is no physiological basis and no quality data to support the use of chiropractic in pregnant women and babies. Paediatricians are particularly concerned about the application of alternative medicines and therapies in babies and children.

"The hormone relaxin, which is present mostly in pregnancy, increases joint laxity and connective tissue expansion. Manipulation of already loose joints in and after pregnancy may damage joints and potentially worsen pelvic and back joint pain especially in those with pelvic joint syndrome. As with all CAMs [complementary and alternative medicine], there is the potential for a temporary placebo effect."

I asked Prof Del Mar if there were any good evidence that spinal manipulation was effective for chiropractic manipulation of back pain, neck pain and headache.

According to Prof Del Mar:

"No. The best evidence for treatment questions comes from research that has been done by a particular method called 'randomised controlled trials', 'RCTs'. Reviews of these have not shown good evidence for benefit for manipulation -- whoever does it.

"People who claim benefit may have done just as well from sham manipulation -- which is a placebo effect. This means it's not RCT evidence that supports manipulation.

"But we DO know that occasionally people are hurt (sometimes very badly) from manipulation.

Therefore the best advice is: don't risk it. There don't seem to be any benefits to offset the risks!"

I asked Prof Bogduk if spinal manipulation can remove 'irritation', change 'inflammation' or restore 'biomechanics'.

According to Prof Bogduk:

"The term 'irritation' is ambiguous. It could mean many things. It could be said that in order for someone to have pain, nerve endings (somewhere) have to be stimulated.

"Insofar as 'irritation' could be a synonym for 'stimulation', it is acceptable; but then, the claim that spinal manipulation can remove irritation is tantamount to saying that manipulation can remove pain. It can do so, but in the majority of cases it does not, and does not remove pain any more often than sham treatments or other simple interventions. On the other, if 'irritation' is used to mean some sort of external stimulus to a nerve, then the claim is not substantiated.

"Not only does the statement not qualify what the stimulus is, there is no evidence that manipulation removes it.

"With respect to inflammation, in the first instance there is no evidence that inflammation occurs in the majority of disorders for which manipulation is applied. Indeed, in some schools, known inflammation is a contraindication for manipulation. In the second instance, there is no evidence that manipulation removes inflammation. The statement is an ad hoc fabrication designed to impress lay people, who do not know that there is no inflammation, but who can be lulled into believing that manipulation must have a proven mechanism. In another respect, the statement amounts to wishful thinking: that we wish that inflammation is the basis for pain, and we wish that manipulation would reduce it.

"Neither has been shown to happen.

"To restore biomechanics requires a previous disturbance. In patients treated with manipulation, no consistent or credible aberration of biomechanics has ever been demonstrated. Nor has it been shown that manipulation restores biomechanics. Some studies have shown temporary changes in muscle activity, but some would consider this a physiological change, not one of biomechanics. Some studies are being conducted that might reveal aberrations of biomechanics and their restoration, but nothing has yet been proven."

I asked Prof Ernst about the efficacy and safety of all chiropractic treatments.

According to Prof Ernst:

"Chiropractic is based on outdated assumptions and the evidence suggesting that it works is very weak indeed. In the case of non-spinal conditions and paediatric illnesses, the evidence is largely negative.

"Given that chiropractic is associated with considerable risks, a risk benefit analysis turns out negative for all conditions except non-specific low back pain. The fact that so many chiropractors openly make claims beyond back pain renders them a risk to public health."

I asked Assoc/Prof Eden if he would recommend chiropractic for his patients.

According to Dr Eden:

"I have performed a literature search using the UNSW search engine Scopus, using the key words, chiropractic, premenstrual syndrome, premenstrual tension, fertility, infertility and amenorrhoea. I found only one small randomised trial of chiropractic published in 1999 and a few case reports. Specifically, in the area of infertility, I could not find any scientific trials and only a few case reports.

"On the basis of these findings, I could not recommend chiropractic to my patients with PMS or infertility."

I asked Dr Loblay about the claims made for chiropractic.

According to Dr Loblay:

"There is no sound anatomical, physiological or pathological basis to the claim that 'neck misalignment' and associated 'imbalance in nervous system function' plays any part in arthritis,

bronchitis, chronic fatigue syndrome and fertility, and there is no plausible role for chiropractic treatment in these conditions.

"Allergies, asthma, croup, fever, infection, tonsillitis, vaccine preventable infections and hypertension are conditions where significant harm could occur if someone were to rely on chiropractic treatment instead of standard medical care

"The claim by chiropractors to have ways 'to restore your ability to adapt to allergens by locating and reducing disturbances to your nervous system' reveals a fundamental misunderstanding of the nature of allergies. These act through the immune system, not the nervous system. Reducing 'disturbances of the nervous system' (whatever is meant by that) has no impact on immune responses. 'Adaptation' to allergens (or 'desensitisation') can be achieved with immunotherapy which works on immune cells, not the nervous system.

"It is true that the sensory experiences that commonly accompany allergic reactions (eg itch, tightness in the chest, nasal blockage) are mediated by nerve impulses that register sensations in the brain, and can be modified by altering nerve cell responses either peripherally (eg with antihistamines, menthol, capsaicin, etc) or centrally (eg with sedatives, general anaesthesia), but this is a far cry from anything that chiropractic is able to achieve. Important to point out that in allergic conditions these nerve impulses are downstream events, not related to upstream causal mechanisms."

I asked Prof Forgas about the exploitation of vulnerable groups by chiropractors.

According to Professor Forgas:

"Chiropractors typically claim to provide treatment for an extremely wide range of symptoms that are completely unrelated to problems associated with musculoskeletal pain where their claimed expertise lies. Such indiscriminate claims must raise serious doubts in the minds of even an intelligent layperson about the veracity of such claims. Fortunately, the existing scientific literature proves conclusively that chiropractic interventions for these conditions are completely ineffective, and may well cause serious harm.

"Should governments step in and control an industry that, at best, charges clients for totally ineffective services and, at worst, will damage their health? Unfortunately, the psychological reality is that many people are unwilling or unable to critically evaluate the bogus claims made by chiropractors motivated by little more than financial self interest.

"Parents of sick children are a particularly vulnerable group, easily exploited by chiropractors. While one should respect as far as possible people's freedom to make individual choices about their preferred treatment options, there are also important precedents in liberal Western democracies of regulating and even prohibiting alternative treatment options that are known to be ineffective and may cause more harm than good. It is high time that the claimed chiropractic treatments of pregnancy, babies and young children should be regulated and join the long list of bogus therapies that we no longer tolerate."

Research

A 2010 review titled 'Effectiveness of manual therapies: the UK evidence report' in *Chiropractic & Osteopathy* concluded:

"The evidence is inconclusive for cervical manipulation/mobilization alone for neck pain of any duration, and for manipulation/mobilization for mid back pain, sciatica, tension-type headache, coccydynia, temporomandibular joint disorders, fibromyalgia, premenstrual syndrome, and pneumonia in older adults.

"Spinal manipulation is not effective for asthma and dysmenorrhea when compared to sham manipulation, or for Stage 1 hypertension when added to an antihypertensive diet.

"In children, the evidence is inconclusive regarding the effectiveness for otitis media and enuresis, and it is not effective for infantile colic and asthma when compared to sham manipulation. The evidence is inconclusive for knee osteoarthritis, fibromyalgia, myofascial pain syndrome, migraine headache, and premenstrual syndrome. In children, the evidence is inconclusive for asthma and infantile colic". **

Other systematic reviews and Cochrane reviews relating to individual conditions does not support chiropractic claims for the following conditions:

Asthma:

"The currently available data from RCTs of spinal manipulation unanimously demonstrate that this treatment is not effective in alleviating the symptoms or signs of asthma".*

Bedwetting:

"There was weak evidence to support the use of hypnosis, psychotherapy, acupuncture and chiropractic but it was provided in each case by single small trials, some of dubious methodological rigour."

Carpel Tunnel Syndrome:

"The suggestion that chiropractic manipulation is an effective treatment for CTS is not based on data from controlled clinical trials and there is therefore insufficient evidence to suggest that future treatment of CTS should deviate from the conventional approach of NSAIDs, splinting, corticosteroid injection and surgical release of the median nerve". xii

Colic:

"It is concluded that the claim [Chiropractic spinal manipulation for infant colic] is not based on convincing data from rigorous clinical trials". **iii

Fibromyalgia:

"The current trial evidence is insufficient to conclude that chiropractic is an effective treatment of Fibromyalgia". xiv

Headache:

"It is unclear from the findings of this systematic review whether or not spinal manipulation is an effective treatment for headache disorders. Methodological limitations coupled with the small number and considerable heterogeneity of the randomized trials we were able to identify make it

difficult to rule out nonspecific (placebo) factors as an explanation for the clinical improvements that were consistently observed across trials, irrespective of headache category". **

Hypertension:

"There are only relatively few clinical trials testing the notion that chiropractic spinal manipulation reduces blood pressure of hypertensive patients. Those that do exist tend to be of poor methodological quality. Therefore there is no reason to assume that this treatment is effective".

Infant Colic:

"Chiropractic spinal manipulation is no more effective than placebo in the treatment of infantile colic. This study emphasises the need for placebo controlled and blinded studies when investigating alternative methods to treat unpredictable conditions such as infantile colic."

"The current evidence from RCTs does not show that chiropractic spinal manipulation is an effective treatment for infant colic". **viiii**

Whiplash:

"The symptoms resulting from a whiplash accident are pain, headache, or dizziness."

"There is no evidence that chiropractic is any more effective at resolving acute neck pain than any other intervention, and no intervention is demonstrably better than sham therapy, ie the passage of time.

"For acute neck pain after whiplash, the natural history is very favourable. Indeed, it is more favourable than for neck pain not associated with injury.

"Patients with acute neck pain after whiplash divide into two groups: those destined to get better, provided you do not frighten them; and those destined to become chronic. Unfortunately, you can't tell between the two groups on day one.

"For chronic neck pain, the evidence explicitly shows that no form of conservative therapy is successful at stopping the pain."

Non-spinal conditions:

"Only very few randomised clinical trials of chiropractic manipulation as a treatment of non-spinal conditions exist. The claim that this approach is effective for such conditions is not based on data from rigorous clinical trials". xix

A 2001 systematic review of sham-controlled, double-blind, randomised clinical trials was published in the *Journal of Pain and Symptom Management*. It concluded that:

"Sham-controlled, double blind RCTs of SM [spinal manipulation] are feasible and represent an attempt to differentiate between specific and non-specific therapeutic effects. Few such studies exist and some of the existing ones are burdened with serious methodological shortcomings. The three most rigorous trials do not suggest that SM is associated with specific therapeutic effects".**

In 2006, a review of systematic reviews of spinal manipulation, published in the *Journal of the Royal Society of Medicine*, concluded that:

"We found no convincing evidence from systematic reviews to suggest that SM is a recommended treatment option for any medical condition". "XXI

Adverse Events of Spinal Manipulation (SM)

A number of systematic reviews challenge the claims that SM is safe.

In a systematic review of case reports (from 1995–2001) of serious adverse events caused by SM concluded that:

"Serious complications of cervical spine manipulation appear to occur regularly. Their incidence is essentially unknown and should be established as a matter of urgency through adequately designed investigations". xxii

A more recent systematic review in 2007 of adverse effects of spinal manipulation was published in the *Journal of the Royal Society of Medicine*. It also concluded that:

"Spinal manipulation, particularly when performed on the upper spine, has repeatedly been associated with adverse events". "XXIII"

A 2010 review of "Deaths after chiropractic: a review of published cases" in *The International Journal of Clinical Practice* concluded:

"Numerous deaths have occurred after chiropractic manipulations. The risks of this treatment far outweigh its benefit". xxiv

Paediatric Concerns

The majority of chiropractic websites promote the use of chiropractic for pregnant women, babies, infants and children.

A recent study by the Official Journal of the American Academy of Pediatrics concluded that:

"Serious adverse events may be associated with pediatric spinal manipulation; neither causation nor incidence rates can be inferred from observational data. Conduct of a prospective population-based active surveillance study is required to properly assess the possibility of rare, yet serious, adverse events as a result of spinal manipulation on pediatric patients".**

Standards for competency and education in chiropractic

The Council on Chiropractic Education Australasia Inc (CCEA)^{xxvi} is an independent and nationally recognised body "responsible for ensuring competency and high education standards in chiropractic for the Australasian community".

With the majority of chiropractor websites making false and misleading claims about the benefits of chiropractic, I believe that the competency and education standards need to be reviewed in view of up-to-date evidence-based medicine and best practices.

US-based outcome of chiropractic court case

On 7 September 2010^{xxvii}, a four year lower-court battle initiated by the Texas Medical Association (TMA) and Texas Medical Board against the Texas Board of Chiropractic Examiners (TBC) and Texas Chiropractic Association (TCA) ended with a judge's order^{xxviii} which required that chiropractors must limit their diagnoses to biomechanical conditions of the spine and musculoskeletal system.

Practitioner websites (NSW)

Chiropractic in the following websites, businesses and practitioners make claims relating to the treatment of pregnant women, babies, infants and children:

http://www.universalhealth.com.au/ http://www.healingwave.net.au/index.php/chiropractors http://www.absolutecarechiro.com.au/ http://www.healthpluschiropractic.com.au/ http://www.actionhealth.com.au/ http://www.kingswilliamchiropractic.com.au/ http://www.activehc.com.au/ http://www.kogarahchiro.com.au/ http://www.alburychiropractic.com.au/ http://www.lightchiro.com.au/ http://www.backtobasicschiropractic.com.au/ http://www.mahanidischiro.com/ http://www.blakehurstchiro.com.au/ http://www.monavalechiro.com.au/ http://www.burwoodfamilychiro.com.au http://www.mosmanchiropractor.com.au/ http://www.bwchiro.com.au/ http://www.neurohealthchiro.com.au/ http://www.careclinic.com.au/chiro.htm http://www.newtownchiro.com.au/ http://www.caringbahspinalcare.com.au/ http://www.newworldchiropractic.com.au/ http://www.centraltohealth.com.au/ http://www.norwestchiropractic.com.au/ http://www.championchiro.com.au/ http://www.ogchiro.com.au/ http://www.chatswoodchiropractic.com/ http://www.osmosischiro.com.au/ http://www.chirocareforkids.com.au/ http://www.petrozzihealth.com.au/ http://www.chiroposture.com/ http://www.platinumchiropractic.com.au/ http://www.chiropractorchatswood.com/ http://www.ruddchiropractic.com.au/ http://www.chiropractorsydney.org.au/ http://www.shirleyrdchiro.com.au/ http://www.sydney-spinal-care.com.au/ http://www.spinalhealth.com.au/ http://www.chrcentre.com.au/cbchome.htm http://www.spine.net.au/ http://www.clovellychiro.com.au/ http://www.stanmorechiro.com.au/ http://www.naturaltherapypages.com.au/therapist/5395 http://www.thrivechiro.com.au/ http://www.completehealthchiro.com.au/ http://www.totalchiro.com.au/ http://www.gardchiropracticclinic.com.au http://www.wynyardchiro.com.au/ http://www.haberfieldchiropractic.com.au/ http://www.yasschiro.com.au/ http://www.handsonsydney.com.au

This list of websites above was obtained by using searches in NSW and is by no means complete.

Conclusion

Chiropractor websites are making claims that spinal manipulation can prevent and/or treat or reduce the symptoms of a wide variety of both self-limiting and serious health conditions such as allergies, asthma, ADHD and colic and that it can be used as a substitute for vaccination.

Of great concern is that they are targeting pregnant women, babies, infants and children, making claims that have now been disproven, using techniques that have been demonstrated to have potentially serious adverse effects to both mother and child.

As the majority of chiropractors continue to make false and misleading claims relating to chiropractic, I would like to recommend that the role of the Council on Chiropractic Education Australasia Inc be reviewed to reassess the competency and standards of chiropractors.

Despite evidence that now proves that chiropractic is not effective for non-musculoskeletal health conditions, techniques involving the elimination of the now discredited concept of 'vertebral subluxation' claims that chiropractic can, directly or indirectly, treat a wide range of health conditions for pregnant women, babies, infants and children, continue to be taught to students and practised in the RMIT Chiropractic Paediatric clinic and in other institutions that offer chiropractic courses. These chiropractors may also be promoting chiropractic as a substitute for vaccination which may lead to tragic consequences.

As this is a clear breach of consumer protection and puts patient health at risk, I request that the RMIT Chiropractic Paediatric clinic be closed down pending an investigation into its teachings and that other similar universities, such as Murdoch and Macquarie, be investigated.

I would also ask that a re-education campaign be initiated to ensure that the claims made by chiropractors reflect evidence-based medicine and best practices.

Yours sincerely

Loretta Marron

СС

The Hon Catherine King MP, Parliamentary Secretary for Health and Ageing Professor Jim Bishop AO, Chief Medical Officer, Chris Evans Minister for Tertiary Education, Skills, Jobs and Workplace Relations Dr Ziggy Switkowski, Chancellor, RMIT University
The Hon Michael Egan, Chancellor Macquarie University
Mr Terry Budge, Chancellor, Murdoch University
Dr Gino Pecoraro President Qld AMA
AHPRA
Mark Ryan MP Morayfield
And others

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http://www.buderimchiropractic.com/doctor/chiropractor/72L/buderim-chiropractor/your-first-visit.htm (Accessed 7 March 2011)

vii RMIT Chiropractic Teaching Clinic, GOODHEALTH, brochure http://mams.rmit.edu.au/bdb4dqqo6ryd1.pdf (Accessed 6 March 2011)

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