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Colquhoun reply to chiropractic-defending letters from Kelly, Bale, and Roughan

I'm grateful for the opportunity to reply to the defences of chiropractic from Kelly,¹ Roughan,² and Bale³ in your last issue.

I'd like first to deal with the minor matter of titles, before getting onto the more important question of evidence. I notice that Brian Kelly signs his letter "Dr Brian Kelly B App Sci (Chiro)" in his letter to *NZMJ*. He seems to be a bit less careful in his use of titles on his own school's website where his President's welcome⁴ is signed simply "Dr Brian Kelly", a title he adopts in at least three other places. Karl Bale (CEO/Registrar, Chiropractic Board New Zealand) points out that "Failure to qualify the use of the title 'Doctor' **may** contravene the provisions of the Medical Practitioners Act 1995". Karl Bale also points out that some ruthless sales methods characteristic of chiropractic are contrary to the Chiropractic Board's code of ethics.

It seems to me quite remarkable that none of the letters mentions the 'subluxation' that lies at the heart of their subject.⁵ Could that be because they are reluctant to admit openly that it is a mere metaphysical concept, that no one can see or define? It is sad that so many patients are subjected to X-rays in search of this phantom idea. It is this metaphysical nature of chiropractic that separates it quite clearly from science,

Brian Kelly says "How can any reader take seriously, anything suggested by a writer who opines that a 19th Century journalist possessed superior "intellectual standards" to "the UK's Department of Health" and "several university vice chancellors". The views of the Davenport Leader on chiropractic were mild compared with those of the great H.L. Mencken (1924)⁶ who wrote "This preposterous quackery flourishes lushly in the back reaches of the Republic, and begins to conquer the less civilized folk of the big cities."...The problem is that the Department of Health is full of arts graduates who may be very good at classics but can't understand the nature of evidence. And the UK has one vice-chancellor, a geomorphologist, who defends a course in his university that teaches that "amethysts emit high yin energy"⁷ I'll admit, though, that perhaps 'intellect' is not what's deficient in this case, but rather honesty.

Your correspondents seem to confuse the duration of a course with its intellectual content. You can study homeopathy for years too, but after all that they are still treating sick people with medicines that contain no medicine. Anyone who works in a university knows that you can easily get accreditation for anything whatsoever if you choose the right people to sit on the committee. I have seen only too many of these worthless pieces of paper. "Amethysts emit high yin energy"⁷ was part of an accredited course (at the University of Westminster) too, Need I say more?

Now to the real heart of the problem, namely the question of evidence. Brian Kelly says that the book by Singh and Ernst⁸ shows "extreme bias", but what that book actually shows is an extremely scrupulous regard for evidence, Ernst is in a better position to do this than just about anyone else. He has qualified and practised both regular and alternative medicine, and he was appointed to his present position, as

professor of complementary and alternative medicine to assess the evidence. Perhaps most importantly of all, his position allows him to do that assessment with complete lack of bias because, unlike Kelly, his livelihood does not depend on any particular outcome of the assessment. I'm afraid that what Kelly describes as "extreme bias" is simply a display of pique because it has turned out that when all the evidence is examined dispassionately, the outcome is not what chiropractors hoped.

The fact of the matter is that when you look at *all* of the evidence, as Singh & Ernst do, it is perfectly clear that chiropractic is *at best* no better than conventional treatments even for back pain. For all other conditions its benefits fail to outweigh its risks – contrary to the many claims by chiropractors. Both the New Zealand and the UK governments have got themselves into an impossible position by giving official recognition to chiropractic *before* the evidence was in.

Since the conventional manipulative treatments are cheaper, and may well be safer, and because they involve no quasi-religious ideas like "subluxation" or "innate intelligence", the only reasonable conclusion is that there is no need for chiropractic to exist at all. They do nothing they do that could not be done as well by medical practitioners and physiotherapists. What will governments do about that, I wonder?

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References:

1. Kelly B. New Zealand College of Chiropractic response to "Dr Who?" editorial. N Z Med J. 2008;121(1280). <http://www.nzma.org.nz/journal/121-1280/3223>
2. Roughan S. Setting the record straight: New Zealand Chiropractors' Association response. N Z Med J. 2008;121(1280). <http://www.nzma.org.nz/journal/121-1280/3222>
3. Bale K. Chiropractic Board New Zealand response to "Dr Who?" editorial. N Z Med J. 2008;121(1280). <http://www.nzma.org.nz/journal/121-1280/3224>
4. http://www.nzchiro.co.nz/about_president.php
5. <http://www.chirobase.org/01General/chirosub.html>
6. http://www.geocities.com/healthbase/mencken_chiro.html
7. <http://dcsience.net/?p=227>
8. Singh S, Ernst E. Trick or Treatment? Alternative Medicine on Trial. Bantam Press; 2008.

Colquhoun's opinion versus science—a response from the New Zealand Chiropractors' Association

In response to Colquhoun's letter regarding the concept of subluxation in chiropractic we offer the following:

Chiropractic is concerned with the relationship of body structure (primarily the spine) to function (as co-ordinated by the nervous system). It is the only profession dedicated to the analysis, correction and prevention of the vertebral subluxation complex, otherwise known simply as "subluxation".

Yes, the concept of subluxation is a central premise in chiropractic. Colquhoun's dismissal of it as a "mere metaphysical construct" or "phantom idea" serves only to demonstrate his lack of knowledge and understanding in this arena.

The term 'subluxation' has a colourful history and has been the subject of debate both within and outside the chiropractic profession.^{1,2} Contrary to Colquhoun's personal opinion and unsubstantiated references, the concept is sound and scientific research from various fields is helping to confirm its existence and effects.

Unfortunately, to date most funds for complementary medicine research have been diverted into simplistic or poorly designed clinical trials which are of limited or no value for studying such phenomena. However, progress is being made using neurophysiological measurements and functional imaging. Such research will allow for various phenomena detected by trained CAM practitioners to be objectively measured (e.g. subluxations in chiropractic, cranial rhythms in osteopathy, and Qi in Chinese medicine).

The term subluxation is derived from *sub* = less than, *luxation* = dislocation. The original simplistic concept of 'a bone out of place pressing on a nerve' has been significantly developed and refined with increasing knowledge of spinal function and nerve physiology (no longer limited to just the action potential).²⁻⁴

A comprehensive, but by no means complete, description of the subluxation is the five component model known as the "Vertebral Subluxation Complex" which details key features of this important clinical entity under the categories of spinal kinesiopathology (abnormal motion or position of spinal bones), neuropathophysiology (abnormal nervous system function), myopathology (abnormal muscle function), histopathology (abnormal soft-tissue function), and pathophysiology (abnormal function of the spine and body as a whole). Each of these components can and has been observed, measured and documented.²⁻⁶

New research and contemporary thinking is focusing on the afferent aspect of nerve communication; specifically on how altered input from spinal joints affects central nervous system processing (a phenomenon often termed dysafferentation or more simply 'garbage in – garbage out').^{7,8}

There are two NZ chiropractors (who incidentally hold PhDs) currently researching various neuro-physiological aspects of chiropractic at the University of Auckland's Medical School, a prestigious institution that Colquhoun would be hard pressed to cast aspersions on.

Studies continue to elucidate and characterise the numerous and varied devastating effects that subluxations can have on overall health and function. The World Health Organization accepts it as a listing in the latest international classification of disease and related health problems, referred to as M99.1 Subluxation complex (vertebral). Doctors of chiropractic are the only professionals specifically trained and dedicated to analysing and correcting vertebral subluxations.

The Council on Chiropractic Practice has published comprehensive evidence-based guidelines on chiropractic care (www.ccp-guidelines.org) including evidence ratings for various aspects of clinical practice.

Investigation of neuro-musculo-skeletal dysfunction is a growing area of interest involving chiropractic researchers, clinicians, and other independent researchers. Much of the evidence for the effects of subluxation increasingly comes from outside the chiropractic profession and is found in such varied fields as the basic sciences, medicine, psychology, biophysics and engineering, neurophysiology, and the relatively new field of psycho-neuro-immunology.^{2,3,9}

It is only through inter-disciplinary co-operation that we can hope to further understand the complexities and interactions of the human organism as an integrated whole. Much progress has been made and more is yet to be documented.

Traditionalists in medicine may find it hard to accept the move away from pure reductionist models.

As with any subject, one can choose to form closed opinions based on biased discourse, or can hold an open mind with a healthy dose of scepticism. As Colquhoun should be aware, “expert opinion” like Ernst’s rates as the least robust form of evidence but he relies heavily upon it when making his rather tiresome and repetitive assertions.

Modern chiropractors are not claiming that all disease or dysfunction is a result of subluxation. Disease and dysfunction can of course occur with, because of, or despite subluxations. Chiropractors recognise that lifestyle, environment, nutrition, toxins, genetics, and emotional state all influence health and well-being.

Finally to address Colquhoun’s statement that chiropractors “do nothing that could not be done as well by medical practitioners and physiotherapists” and “what will governments do about that, I wonder?”, we recommend he read the New Zealand Government’s thorough Report on the Commission of Inquiry into Chiropractic in 1979 to find out what has already been done and recommended.¹⁰

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References:

1. Rome PL. Usage of chiropractic terminology in the literature: 296 ways to say "subluxation". *Chiropractic Technique*. 1996 May;8(2):1–12.
2. Kent C. Models of Vertebral Subluxation: A Review. *Journal of Vertebral Subluxation Research*. 1996;1(1):1–7.
3. Chestnut JL. The 14 foundational premises for the scientific and philosophical validation of the chiropractic wellness paradigm. Victoria, BC: The Wellness Practice; 2004.
4. Boone R, Dobson G. A proposed vertebral subluxation model reflecting traditional concepts and recent advances in health and science. *Journal of Vertebral Subluxation Research*. 1996 Aug 1(1):1-12.
5. Dishman R. Review of the literature supporting a scientific basis for the chiropractic subluxation complex. *J Manipulative Physiol Ther*. 1985 Sep;8(3):163–74.
6. Videman T. Experimental models of osteoarthritis: the role of immobilization. *Clinical Biomechanics*. 1987;2(4):223–9.
7. Seaman DR, Winterstein JF. Dysafferentation: a novel term to describe the neuropathophysiological effects of joint complex dysfunction. A look at likely mechanisms of symptom generation. *J Manipulative Physiol Ther*. 1998 May;21(4):267–80. Review.

8. Haldeman S. Neurological effects of the adjustment. *J Manipulative Physiol Ther* 2000 Feb;23 (2):112–4. Review.
9. Fidelibus J. An overview of neuroimmunomodulation and a possible correlation with musculoskeletal system function. *J Manipulative Physiol Ther*. 1989 Aug;12(4):289–92.
10. Inglis BD, Fraser B, Penfold BR. Chiropractic in New Zealand, Report of a Commission of Inquiry. Wellington, New Zealand: Government Printer; 1979.