Asia-Pacific Chiropractic Journal

The Logic and Science of the Vertebral Subluxation Complex: In defence of the VSC*

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There are simply no grounds to ignore the basic tenet of Chiropractic, at least in the absence of evidence to do so

Abstract

Narrative: The contemporary term Vertebral Subluxation Complex (VSC) is preferred as a more accurate and appropriate term applied to a vertebral subluxation. It encompasses the wider ramifications of components involved with this biomechanical disorder of perturbed vertebral function initiating somato-autonomic reflexes from noxious sensory input. Numerous other terms have appeared in the literature with neuro-articular lesion and ortho-spondylo-dysarthrics among 296 others. (Dalgleish, 1960; Rome 1996, 2016; Rome,Waterhouse 2019, 2025; Stump 2004)

To claim that VSC's do not exist is a specious accusation. These claims may only be supported by individual opinion, but have not been supported by formal research studies as evidence.

Indeed, no scientific or alternative model has been put forward, let alone published. Nor have sceptics outlined that type or degree of evidence they require. We suggest that there is more evidence both clinically and scientifically in support of the VSC model than the mere opinion opposing it.

The rejection by some of the Chiropractic subluxation model is inconsistent with available published evidence in both the medical and Chiropractic literature. It is further inconsistent due to the fact that the case of the dissenters is without substance and appears to be purely assertions by not citing formal referenced evidence or supporting research to justify their opinions.

Indexing terms: Chiropractic; subluxation; Vertebral Subluxation Complex; evidence; deniers.

Introduction

Chiropractic is a stand-alone noun which has identified a primary contact health profession for over a Century. It was coined to describe a unique model of patient care, one based on logic, observed phenomena, and science. It is unscientific and a misrepresentation to adopt a different key model and then claim it is Chiropractic, or represent the Chiropractic profession as such

... The clinically observed association of this vertebral subluxation complex and its manual or instrumental correction with reduction of symptoms is so frequent, that failing to recognise this association could be regarded as negligence ...'

*The title of this paper is based on the 1947 textbook: The Science and Logic of Chiropractic by Verner JR.

a different profession under that noun. The profession represents over a Century of a distinct, independent, collaborative, and successful model within health care.

> The authors would suggest that the VSC model surpasses the criteria for Evidence Based Practice under the PICO method, with PICO standing for Population, Intervention, Comparison, and Outcome. (RMIT Library Guidelines, extracted January 2026)

Despite the scientific physiological elements of the VSC, little has been scientifically demonstrated on the rationale behind attempts to discredit the concept.

Apart from the single element of dysfunction, critics have not offered any alternative explanation for their manipulative objectives to justify their therapeutic intervention; nor to explain the large number of signs and symptoms which tend to be associated with this vertebral lesion. (Ernst, 2008; Morley et al, 2001)

An early theory of a vertebral subluxation as a 'bone out of place' (BOOP) may be more appropriately applied to the medical definition of a subluxation as less than an incomplete or partial dislocation. Such a descriptive is distinctly limited and incomplete in consideration of the range of associated biological changes correlated with this degree of articular disturbances.

To claim that this BOOP theory as a current concept in contemporary Chiropractic is basically raising a red herring against current research, understanding, general acceptance, and clinical evidence. The more comprehensive and accurate VSC model has been a major part of Chiropractic hypotheses for over 50 years. (Gatterman 2005; Senzon 2018; Redwood 2003)

The blinkered deniers

While the concepts may have been once rejected because they did not concur with conventional conservative medical thinking at the time, much has changed if one is prepared to keep up with the published evidence and ignore politicised professional territorialism. The nonconformists appear to have overlooked documented formal research and observed clinical phenomena experienced in Chiropractic and osteopathic practices over decades.

To understand the logic and opinions of deniers, it seems they also object to the term subluxation which should not be a problem if it is defined for its intended purpose in Chiropractic literature. The term subluxation must be differentiated from the conventional but limited definition. This can be accomplished by calling it a Chiropractic subluxation or a vertebral subluxation complex (VSC). (Gatterman 2005; Rosner 2024)

To be clear, a Chiropractic subluxation is far more multifaceted than a simple bone out of place. It may not be a cause of all diseases, but may be a factor in many conditions because of its neurophysiological component.

However, deniers need to update their blinkered misinterpretations of these matters and open up to the volume of medical evidence that there is on the model of many somatovisceral conditions. (Sato et al, 1997) This medical adoption of Chiropractic concepts, especially in Europe, highlights the contradiction within medicine's acknowledgement of the VSC model. (Appendix A)

> While some may feel there is not sufficient evidence to justify the VSC existence, practitioners must be 'manipulating' something. That 'something' has to have a name to be identified, and to justify manual intervention even by cynics and deniers, and to explain clinical presentations. Such a stance begs questions as to why this widely recognised Chiropractic model tends to have been overlooked by papers in English language medical journals, despite the acknowledged clinical efficacy which is also noted by patient demand. European medical literature certainly depicts the somatovisceral element of the VSC. (Appendix A)

Apart from patient demand, we suggest that the greatest recognition of all lies in the fact that despite once rejecting the concepts of the VSC model and the manual procedures to address it, other professions have since adopted key elements of them, often by different nomenclature such as manual medicine and physiatry.

To claim that there is no evidence to support the hypothesis of this clinical finding of vertebral subluxation does not stand rational scrutiny. We maintain that it is evidence based and clinically proven.

Research

Research on the VSC has evolved over many years and become more formal by clarifying the data particularly regarding the ramifications, of the autonomic involvement in the subluxation. The term Vertebral Subluxation Complex (VSC) has been adopted to convey the intricate and complicated nature of this intricate lesion.

Not only is there considerable Chiropractic and osteopathic evidence in support of the subluxation model, but there is also mountainous clinical evidence in the literature.

Chiropractic research is considerable although only a limited number of Chiropractic journals are listed on PubMed. There is however, a substantial number (50+) of Chiropractic journals listed on The Index to Chiropractic Literature. Overlooking such a resource by critics can only be deliberate. (Adams et al, 1997; Brennan et al, 1997; Budgell, 2004, 2005; Christiansen, et al 2018; Cramer, 2006; Denslow, 1972; Ebrall, 2009; Faye, 1983; Haas, 2024; Haavik, 2021; Hart, 2016; Hawk et al. 2002; Henderson, 2012; Karason et al, 2003; Korr et al, 1962, 1975; Kovanur et al, 2017, 2024; Lantz, 1989, 1995; Niazi et al, 2015; Pickar, 2002; Rome, 2016; Rosner, 2024; Senzon, 2018; Slosberg, 1988; Taylor, 2023; Vernon, 2010)

In addition, Chiropractic research involving animal subjects has been conducted as noted in Table 1. (Rome, McKibbin, 2011)

Animal Research on Visceral Dysfunction, Neural Disturbance and the Vertebral Subluxation

(Extracted from (Rome 2009, 2010)

To claim that the subluxation affects only the musculoskeletal structures is a blindingly false and an empty denial of basic scientific facts and a renunciation of fundamental somato-autonomic neurophysiology. One of the most extensive research projects into somato-autonomic neurophysiology has been summarised by Sato et al in 1997.

Table 1: Listing of subluxation-related research using animals

Author(S)	Research/Title	Journal/Year
Brennan P, Kokjohn K, Triano J, et al	Immunological correlates Spinal mobility Model: Dog	Proceedings Intl Conference Spinal Manip. 1991 (215)
Bolton PS, Holland CT	Vertebral displacement Model: Cat	Soc Neurosci Abstr. 1996 (238)
Bolton PS Holland CT.	Vertebral motion Model cats	J Neuroscience Meth 1998 (51)
Bolton PS Budgell BS, Kimpton A	Cervical vertebral movement Model Rats	Auton Neurosci 2006 (47)
Budgell BS, Hotta H, Sato A	Reflex bladder motility Stimulation of interspinous tissue Model: Rat.	J Manipulative Physiol Ther 1998 (60)
Budgell BS, Sato A Suzuki A, Uchida S.	Adrenal function Stimulation interspinous tissues Model: Rat.	Neurosci Res 1997 (61)
Budgell BS Bolton PS	Cerebrospinal fluid pressure Model: Rat	J Manipulative Physiol Ther 2007 (57)
Burns L*, Chandler LC, Rice RW.	Pathogenesis of visceral disease VSC (vertebral lesions) Model: Rabbits	Am Osteop Assoc, (Pub) Text Chicago 1948. (237)
Cleveland CS.	Researching the VSC Model: Rabbit.	Sci Review Chiropr 1965 (236)
Crawford JP, Hickson G, Ward M.	Immune complex deposition Acute synovitis/knee Model: Rabbit	J Manipulative Physiol Ther 1986 (216)
DeBoer KF.	Gastrointestinal myoelectric activity VSC/vertebral lesions: Model: Rabbit	Europ J Chiropr 1984 (239)
DeBoer KF, Schultz M, McKnight ME.	Gastrointestinal myoelectric Spinal manipulation Model: Rabbits.	Man Med 1988 (66)
Deboer KF, Hansen J, Dhami M.	Interaction of oxygen radicals and macrophages/ gossypol injection for inflammatory response. Model: Rats, Hamsters	J Manipulative Physiol Ther (Abstract) 1990 (224
Kaushal B Hayek R Ali S, et al	T1-T4 sensory afferents Model: Rats	Eur J Chiropr (Poster Prestn) 2002 (81)
Kurosawa M, Watanabe O. Maruyama H, Budgell BS	Dorsal spinal cord blood flow Innocuous cutaneous stimulation Model: Rats	Auton Neurosci 2006 (82)
Sato A Swenson RS.	Sympathetic nervous system Spinal column stress Model: Rats.	J Manipulative Physiol Ther 1984 (88)
Waddell SC, Davidson JS, et al	Immune response/endotoxic shock Cervical sympathetic trunk Model: Rats	J Manipulative Physiol Ther 1992 (200)

Their extensive studies have been conducted at the Department of Nervous System at the Tokyo Metropolitan Institute of Gerontology, the Laboratory of Physiology, Tsukuba College of Technology in Japan, and the Physiologisches Institut der Universität Würzburg Röntgering, in Germany by Sato, Schmidt et al, as noted in their numerous cited papers. Their research has produced extensive evidence which cannot be ignored or discounted. (Sato et al, 1997)

Definition

Given that the physiology of articulations refers to normal joint function, pathophysiology of a joint motions may be deemed to have the potential to compromise the joint's normal free range of motion, dysfunction (mechanical modification), with or without osseous displacement when functional fixation may occur in the neutral position without displacement. It may be understood that this dysfunction could potentially affect associated soft tissue structures and physiological activity, in particular both afferent and efferent neurological reflex transmissions. (Böhni, 2015)

These phenomena may subsequently be associated with an array of signs, symptoms and conditions via somatosensory, somatosomatic, somatovascular, and somatovisceral sensory reflex pathways. A construct of such pathophysiological effects is again designated a Vertebral Subluxation Complex, a VSC. (Sato et al, 1997; Rome 2003, 2009, 2010; Rome & Waterhouse, 2021)

A range of definitions have emerged over the decades. These have developed more fully as additional research is presented. Even the element of a loss of segmental motion as in a functional fixation, can be a sensory insult activating somato-autonomic reflex responses from the joints' soft tissues and articular surfaces. Paul Noone explains the clinical phenomena as reafference. (Noone, in press; Haas et al. 2024)

Once defined, the term subluxation differentiates between a biomechanically disturbed vertebral segment and a pathophysiological one encompassing five main features; functional, placement, neural integrity, symptoms, and receptiveness to correction. (Carnevali et al, 2020; Kapreli et al, 2009; Katz, et al. 2019; Menétrey, et al. 1987; Sato et al, 1981, 1987, 1997; Schmidt, 2015)

When applied under a suitable definition, the term subluxation as a complex encompasses a range of associated dysfunctions including, autonomic, articular, and vertebral segment dysfunction, being forms of articular pathophysiology. (Johnson, 2011)

A definition of a Chiropractic vertebral subluxation should allude to its fundamental elements such that a VSC becomes comprehensibly adequate. As one of the forms of a segmental structural lesion it would include the pathophysiology of articular dysfunction, segmental dysfunction, autonomic dysfunction, and sensory dysfunction. It then encompasses a possible and plausible explanation for a range of signs and symptoms.

Based on research, the authors currently describe a Chiropractic subluxation as a biological site of persistent central segmental motor control disturbance that involves a joint, such as a vertebral motion segment that is biomechanically dysfunctional, thereby inducing maladaptive neural plastic changes that may disturb the central nervous system's ability to adequately self-regulate, adapt, and therefore function without aberrant neural impact (pathophysiology); it may generate a variety of neurogenic signs, symptoms and conditions.

In essence, a Chiropractic vertebral subluxation complex (VSC) is where components of disturbed articular physiology result in associated pathoneurophysiology; it commonly involves segmental spinal motor units and sensory autonomic reflexes with associated clinical signs and symptoms.

A Chiropractic adjustment is a specialised form of a specific manipulation which is directed at restoring disturbed articular physiology and associated pathoneurophysiology; it most commonly involves specified segmental spinal motor units.

The World Health Organisation has supplied its own definitions in recognition of the clinical finding:

> Subluxation. A lesion or dysfunction in a joint or motion segment in which alignment, movement integrity and/or physiological function are altered, although contact between joint surfaces remains intact. It is essentially a functional entity, which may influence biomechanical and neural integrity. (WHO)
>
> Subluxation complex (vertebral). A theoretical model and description of the motion segment dysfunction, which incorporates the interaction of pathophysiological changes in nerve, muscle, ligamentous, vascular and connective tissue. (WHO, 2005)

The New Zealand Chiropractic Association explain the VSC thus '*The terms vertebral subluxation, vertebral subluxation complex (VSC) or simply subluxation are at the core of chiropractic care. Many other terms have been used to describe aspects of this condition such as spinal misalignment or dysfunction, fixation, facet syndrome, or manipulable lesion, however these synonyms are overly mechanical and fall short of describing the true nature, complexity and global health implications of the vertebral subluxation.*' (NZCA, Extracted 2025)

Technically, the only place that a strict interpretation of a (medical) subluxation can take place, is in a skeleton because of soft tissue and rich autonomic sensory integration, the VS can be more complex than a mere sprain neurologically. However, the definition of a VSC takes into account neurological, inflammatory, ligamentous, muscular, and functional considerations, far more than just recognising the physical displacement of bones. The 'medical' definition does not incorporate these complicating factors, although some may be inferred, in which case the definition is inadequate. Dorland's Illustrated Medical Dictionary states that as '*An incomplete or partial dislocation*'.

The medical definition of subluxation does not specify at what stage a subluxation becomes a dislocation. Technically, a subluxation is not a dislocation under that definition. and is somewhat misleading in that it infers a purely mechanical lesion. (Glick, 2022)

Numerous medical papers and textbooks do recognise the term subluxation in the traditional Chiropractic sense. Some 10 medical authors have been noted in a recent paper. These include Murtagh, Cailliet, Finneson, Biedermann, Maigne, Warbasse, Lewit, Schmrl & Junghanns, White and Panjabi as well as Gray's Anatomy (sacroiliac joint), and the World Health Organisation. (Rome, 2013)

Indeed, checking a number of definitions of a descriptive nature serves to reinforce the appropriateness of this form of identification for a VSC:

- noting, concerned with, or based upon the fact or experience, (http://dictionary.reference.com/browse/descriptive)
- referring to, constituting, or grounded in matters of observation or experience, *
- factually grounded or informative rather than normative, prescriptive, or emotive,*
- expressing the quality, kind, or condition of what is denoted by the modified term,*

(*http://www.merriam-webster.com/dictionary/descriptive)

Deniers miss the obvious

Deniers overlook the fact that medicine and physiotherapy have adopted the term of its pathophysiology in more recent times. (Redwood) Osteopathy has also incorporated the model but identify it is under a different nomenclature. (McDonald et al, 1936)

Mounting research has become more formal and clarified the science regarding the ramifications particularly of the neural element of the subluxation. The term Vertebral Subluxation Complex (VSC) has been adopted to convey the intricate and complicated nature of the lesion. (Faye, 1983; Lantz, 1989, 1995; Senzon, 2018; Rosner, 2024)

In trying to understand the denier logic and opinions, it seems they also object to the term subluxation which should not be a problem if it is defined for its intended purpose in a published paper. The objection appears to be denial of some of the clinically reported observations as well as the published research evidence in ignoring positive clinical outcomes. Their alternative explanations of these records would be welcome.

It also appears that they are focussed on early outmoded notions that the subluxation is purely a displacement and can only affect musculoskeletal structures. It would be irresponsible to not record such positive observations, even negligent, as it would be in not reporting any negative outcomes.

Significantly, deniers have yet to recognise the integrated autonomic component of a VSC to enable them to explain the consequences of a VSC as they have only identified the articular dysfunction component.

No other profession places the same degree of significance on VSC's as Chiropractic. That appreciation and recognition is what patients have come to identify with this profession for more than 120 years. A distinction is made with other professions that have adopted their own versions of manual correction, and are now seeking or claiming to be the authorities in this field. These imitators have only come on board after they have noted the success and popularity of Chiropractic. If Chiropractic had not been so successful with its clinical outcomes such blurring would not have occurred.

In 2008, Xue et al stated that 16.1% (9.2% acupuncture, 4.6% osteopathy) of Australians sought Chiropractic care in a 12-month period. It is this foundation upon which the demand for Chiropractic care continues. (Xue, 2008)

Patient feedback also constitutes evidence both by their own reports, return visits and patient demand as recognised by the Safer Care Victoria Review which recorded '*The public responses indicated very strong consumer satisfaction. Of all respondents, 99.7% (21,750) reported a positive experience with the chiropractic care of their children. The overwhelming majority of parents/ guardians reported that chiropractic spinal care helped their child, with 98% (21,474) indicating that their child improved after treatment*'. (SCV, 2019) This is the very Chiropractic care that has been addressing the subluxation in paediatric patients over decades. (Belrveau et al, 2017) (Brown et al, 2013,2014)

The matter of logic

There is simply no proof that the VSC does not exist. It may not be proven to the satisfaction of some, but it is to many others and particularly to those patients who report benefits of Chiropractic care. A blinkered attitude that does not recognise the VSC is a disservice to patients, clinical knowledge, and health care generally.

Nor is it appropriate to claim that one cannot prove a negative. That line only applies to philosophical debate and was negated by Hales and Law: '*Among professional logicians, guess how many think that you can't prove a negative? That's right: zero. Yes, Virginia, you can prove a negative, and it's easy, too*.' (Hales, 2005; Law 2011)

By rejecting this neurological element in the VSC, deniers overlook the fact that medicine and physiotherapy have now adopted aspects of this very pathophysiological model, especially in relation to cervicogenic headaches. According to a PubMed timeline, this interest has comparatively only recently developed since 2018. (Grosskopp, 2023)

To argue that the term subluxation has already been 'taken', or has different connotations is also weak. The traditional Chiropractic subluxation has been recognised for over 120 years. There are many words in the English language with more than a single meaning, that is what a thesaurus covers. If critics open their attitude and accept the multiple factors associated with a VSC, then its importance would be recognised. The Index for Chiropractic Literature and the Osteopathic Medical Digital Repository are rich literature sources.

Logic and clinical evidence

Clinically, Chiropractic practitioners observe the relatively common presentation of cervicogenic headaches to appreciate the neural element beyond a musculoskeletal limitation. There are a number of possible signs and other neural symptoms that can be a part of such headaches, such as paresthesias, vertiginous disturbances, visual disturbances having activated a sensory response, and even vocal changes. Further corroboration is apparent with amelioration of a patient's VSC condition following the implementation of appropriate vertebral adjustments. (Murtagh, 2012)

As an argument of convenience, there appears to have been a weak dismissal of anecdotal and empirical evidence, by sceptics. They offer no other model to explain the phenomena they must witness in practice. Others would contest that anecdotal notion.

Despite numerous papers presenting evidence of the VSC model, there has yet to be any formal studies contradicting this evidence apart from unsubstantiated opinion. Nor has there been original research undertaken to challenge the VSC concepts by producing supporting evidence to justify their otherwise uncorroborated view. (Triano et al, 2013; Robinault et al, 2021)

The assumption that empirical evidence is of little consequence is misleading. It can apply to all health professions. However, practitioner and patient clinical observations as a result of addressing a VSC (adjusting or seeking to correct a VSC) constitute evidence, and must be recognised as such as cause and effect. Patient clinical response is a recognised major reference base for cases in all the health professions for a variety of treatments including manipulation. It is acceptable scientific procedure to base the future of interventions on clinical outcomes. Safe positive results and patient demand justify continuing a particular model of care. (Healy, 2025

Others have noted the value of observation in evaluating evidence and the importance of anecdotal evidence: Theory precedes observation in science. First a scientist has a hypothesis and then s/he tests it with observations. Otherwise, the scientist would not know what to observe, that is, which observations were relevant. (http://www.uow.edu.au/~sharonb/STS218/science/method/theory.html)

Daney was concise when he stated '*Theory and observation in the scientific process cannot be separated*'. (Daney, 2009). In 1996, Smith acknowledged that '*Rich sources of evidence also include anecdotal, which are so often slated* …' (Smith, 1996). Also in 1996, Paris found that 'I*n the relief of*

pain, particularly acute pain, manipulation appears to fare better than all other modalities and procedures.' (Paris, 1996)

The failure to place greater significance on anecdotal and empirical evidence was noted by Campo who stated '*Whether we choose to admit it or not, the anecdote continues to be an important engine of novel ideas in medicine*'. (Campo, 2006; Rome & Waterhouse, 2022)

Brogden stated in 2013 that '*Scientists obtain a great deal of the evidence they use by observing natural and experimentally generated objects and effects*'. (Brogden, 2013)

Enkin and Jadad supported that view when they opined '*If evidence-based health care is to meet its potential, the important role of anecdotes must be acknowledged, studied and utilised*'. (Enkin & Jadad, 1988)

Osteopathy

Osteopathy initiated a similar disrupted vertebral model, also over a Century ago. That profession identifies it under different nomenclature as a somatic lesion. (Korr, 1947,1954; Sato, 1989; King et al, 2011; Patterson & Howell, 1989; Osteomed DR) Incongruously, osteopathy does not seem to have attracted dissension on their osteopathic lesion concept.

Whether an identified spinal functional lesion is termed a somatic dysfunction, functional lesion, or a vertebral dysfunction, the fact remains that such terms only identify two biomechanical elements, yet have the potential to disrupt the physiology and initiate neurological sequelae that are included in a VSC.

Somatic dysfunction requires a definition, as does manipulable lesion. Apart from being vague, non-specific terms which can apply to almost any part of the soma, it would also apply to a hypermobile or unstable vertebral segments suggesting a broad degree of ambiguity. (Triano et al, 2013)

Medicine

As early as 1918, the surgeon Warbasse stated that '*Subluxations of vertebrae occur in all parts of the spine and in all degrees*', and he nominated such terms as '*common subluxations*' and '*finer displacements*'. (Warbasse, 1918)

If medical practitioners note positive responses or negative outcomes in various drugs in their own clinical setting, such observations would have been noted, researched with the possibility of being either developed or withdrawn. It seems that this principle in reference to Chiropractic has not been accepted by those outside the Chiropractic profession.

The term vertebral subluxation (or articular subluxation) has been impeded by having two quite different definitions, as have many words in medicine and the English language. The medical version is the rather simplistic and vague '*less than a dislocation*', while the Chiropractic version is more encompassing by including the various elements of the intervertebral disruption. Those who raise reservations about the term must recognise that a lesion is addressed by manipulation and has over 300 terms to choose from as noted earlier, terms that have been used in the literature over some time by a range of professions. This in itself must constitute recognition of a lesion worth investigating and researching.

Denial of this biomechanical lesion is out of step with the published scientific evidence which demonstrates the disruption of articular biomechanics, functional physiology, neural physiology, and autonomic sensory reflexes activation, and symptom sequelae.

An association of the VSC with certain so-called visceral conditions been more recently recognised in the medical literature Visceral conditions may be influenced by somatogenic noxious sensory input. (Sato et al, 1997; Rome 2003, 2009, 2010; Rome & Waterhouse, 2021)

Murtagh recognised such vertebrogenic symptoms as headaches. migraine-like headache, facial pain, ear pain, anterior chest pain, dizziness/vertigo, and visual dysfunction. Other medical texts recognise the somatovisceral association.(Murtagh, 2012; Schmorl & Junghanns, 1971; Maigne, 1972; Atchison 1995)

Politics

It would suit the monopolistic pursuits of certain political wings of certain bodies to blend Chiropractic into a similar form or image as other professions. Such merging would deliver the Chiropractic profession into oblivion.

A move to contain and eliminate a competitor in the provision of health care started in 1963 when the American Medical Association established a political committee to defend their monopoly. The AMA was quite successful in this as their tactic was to create doubts about Chiropractic. Initially, this was superficially successful by questioning the science underpinning Chiropractic, questioning the education of Chiropractors, questioning a supposed lack of evidence underpinning Chiropractic, and barring inter-professional collaboration. However, the AMA and other medical bodies were found guilty of breaching fair trading regulations in the US Supreme Court. (Agocs, 2011; Wolinsky, 2020)

This was not the first time medical science has let politics get in the way of reality or truth. (Schwager, 2012; Smith 2026; Baurm, Ernst, 2009)

The scientific foundation for Chiropractic is also based on medical sciences and in the medical literature. Chiropractors are just as responsible legally for patient care, diagnostic responsibility, and efficacy as other health professions. Apart from efficacy, evidential credibility, and safety, healthcare professions should be accepted inter-professionally for fairness, transparency, and integrity A single self-protective profession domination does not allow for this.

False claims took root yet medicine have now established medical spinal manipulation also known as physiatry. Single weekend workshop courses have been offered for medical members, seemingly inconsistent with 5-year Chiropractic degree courses. The fact that some medical doctors are taking these week-end courses in an attempt to adopt models of Chiropractic manipulation is further endorsement of such concepts. In further hypocrisy, some doctors would attend Chiropractors for treatment for themselves, while some unjustly reject the Chiropractic model.

The contradiction is further demonstrated when the medical journal papers by medical doctors in mostly European medical journals publish their positive clinical outcomes following spinal manipulation. These compare to the scarcity of similar papers in the US, UK and Australia medical journals. (Appendix A and B)

Family Physician announces

SPINAL MANIPULATION: A WORKSHOP COURSE

In 1988 an integrated basic course on BACK PAIN AND SPINAL MANIPULATION FOR DOCTORS will be conducted under the auspices of the RACGP.
The course will include a workshop (in each state) and a complete set of notes.
The course leaders are Dr Clive Kenna and Dr John Murtagh. The course is open to doctors from the third post graduate year onwards and numbers will be limited in each state.
The all inclusive fee is $450 for non RACGP members and $400 for members. Registration deadline is 27 February 1988.
The workshops dates are

Melbourne	4-6 March 1988	Perth	21-23 October 1988
Sydney	15-17 April 1988	Canberra	11-13 November 1988
Brisbane	13-15 May 1988	Tasmania	to be announced
Adelaide	16-18 September 1988		

Send registration with your choice of workshop and year of graduation to the Coordinator, Spinal Manipulation Course, 4th Floor, 70 Jolimont Street, Jolimont Victoria 3002.
Cheques should be made payable to Spinal Manipulation Course 1988.

Conclusion

The clinically observed association of this vertebral subluxation complex and its manual or instrumental correction with reduction of symptoms is so frequent, that failing to recognise this association could be regarded as negligence.

The anecdotal clinical evidence, efficacy, cost efficiency and other studies on the Chiropractic model of care, reflect positively in patient demand. These factors have brought the profession to where it is today, and a reason for why spinal manipulation has been taken up by other professions.

In order to claim their notions, deniers strive to claim a different model under the designation of Chiropractic. Any 'new' versions of Chiropractic need to update their evidence base, particularly through Pubmed and The Index to Chiropractic Literature (ICL) as a first step. This ICL index should be regarded as documenting conventional Chiropractic.

Despite the numerous papers presenting evidence of the VSC model, there has yet to be any formal challenge to this evidence supporting the conventional Chiropractic subluxation complex model apart from unsubstantiated opinion. Nor has there been original research undertaken to challenge the concepts.

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See also

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Appendix A

European Somatovisceral and Somatoautonomic papers

The following papers on medical manipulation relating to neurospinal and somatovisceral disorders are difficult to obtain, and to have fully translated; they are mostly extracts from Pubmed. This appendix consists mainly of European papers and are submitted for readers interest and discernment. Title translations are primarily from the Google translation facility.

Cardiovascular

Bechgaard P, Fossgreen J. [The thoracic segmental pain syndrome with special regards to pseudo-cardiac disorders.] MMW Munch Med Wochenschr. 1980;122(20):759-760. (German)

Bechgaard P. [Segmentally thoracic pain in patients admitted to a coronary care unit.] Ugeskr Laeger. 1982;144(1):13-15. (Danish)

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Figar S,,Krausova L, Lewit K. [Plethysmographic investigations in the chirotherapy of vertebral disorders.] Acta Neuroveg (Wein) 1967;29(4):618-623. (German) (PMID 6082265 Pubmed)

Grgić V. [Vertebrogenic chest pain – "pseudoangina pectoris": etiopathogenesis, clinical manifestations, diagnosis, differential diagnosis and therapy.] Lijec Vjesn. 2007;129(1-2):20-25. (Croatian) (Pubmed extract)

Isaev A, Sabir'yanov A, Lichagina S, Sabir'yanova E. [Physiological mechanisms of the effect of manual therapy on the orthostatic response of the cardiovascular system.] Fiziologiya Cheloveka. 2005;31(4):65-69. (Russian) (English abstract in Human Physiology 2005;31(4):425-429.)

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Simonenko VB, Tesiq AN, Shirokov EA, Davydov OV. [Some features of coronary artery disease combined with vertebrogenic thoracoalgias.] (Incl "vertebrogenous cardiomyalgia") Klin Med (Mosk). 2007;85(1):61-63. (Article in Russian – Pubmed abstract in English.)

Voitanik SA.[Manual therapy of vertebrogenic cardialgia]

Vopr Kurortol Fizioter Lech Fiz Kult. 1985 Jan-Feb;(1):69-71. Russian (Pubmed extract)

Wei GK, He JM, Chen ZG. Treatment of 104 cases suffering from cervico-spinal hypertension with rotation-reduction method – observation of the long term effect. J Tradit ChinMed 1989;9(4):266-268

Bechgaard P, Bentzen O. [Hearing disorders corrected from the cervical spine.] Nord Med 1963;69:673-675. (Danish) (PMID 1390040 – Pubmed)

Biesinger E, Heiden C. [Earache and functional disorders of the cervical spine.] HNO 1994;42(4):207-213. (German (Pubmed abstract)

Debain JJ. [Otorhinolaryngologic manifestations of cervical origin.] Probl Actuels Otorhinolaryngol. 1972;257-277. (French) (Pubmed listing)

Falkenau HA. [Chiropractic management of the cervical syndrome in oto-rhino-laryngology (Author's translation)] HNO 1977;25(8):269-272. (German) (Abstract Only)

Falkenau HA. [The pathogenesis and chiropractic management of cervical dysphagia) Author's translation.)] Laryngol Rhinol Otol (Stuttg) 1977;56(5)467-469. (German)

Grgić V. [Cervicogenic dysphagia: swallowing difficulties caused by functional and organic disorders of the cervical spine]. Lijec Vjesn. 2013 Mar-Apr;135(3-4):92-9. Croatian.

Gutman G. [The cervical spine and otorhinolaryngologic disease.] HNO 1968;16(10):289-298. (German) (PMID 5725530 – Pubmed listing)

Hülse M, Kollar A, Ganzer U. [The effect of the upper cervical spine on hearing ability.] Laryngol Rhinol Otol (Stuttg) 1988;67(10):501-505. (English abstract)

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Lewit K, Abrahamovic M. [Chronic tonsillitis and the upper cervical spine (author's translation)] Sb Lek 1975;77(1):30-32. (Czech) (English abstract – Pubmed)

Lewit K, Abrahamovič M. [Upper cervical joint blockings and chronic tonsillitis] Kopfgelenksblockierungen und chronische tonsillitis. Manuelle Medizin 1976;14:106. (Cited in: Lewit K. Manipulative therapy in rehabilitation of the locomotor system. 3rd edn. Butterworth Heinemann, Oxford. 1999:282-283.) (See also PMID 1111058 – Pubmed – Czech but English abstract) ENT

Likhachev SA, Borisenko AV. [The dynamics of vertebrogenic vestibular dysfunction under the influence of manual therapy. Lik Sprava. 1994;Jul-Aug (7-8):84-88. (Russian)

Novotný Z, Krausová L. [Audiometric evaluation of results of manipulation therapy of the cervical spine.] Cesk Otolaryngol 1968;17(5):257-266. (Czech)

Svaatko LG, Ivanichev GA: Manual therapy of hearing disorder related to cervical osteochondrosis. Vestnik Otolaringologii, 1987(2): 28-31.

Seifert K. [Functional disorders of the craniocervical transition and ENT symptoms – a status determination.] HNO.1989;37(11):443-448.(German) (Pubmed abstract)

Seifert K. [Manual medicine in otorhinolaryngology. Theoretical principles – clinical practice – principles of therapy and prevention.] Laryngorhinootologie 1995;74(10):583-590. (German)

Seifert I. [Cervical vertebrogenic pain on deglutition in neck, nose and ear medicine. Tendonopathy of the tongue.] Cervical-vertebragene Schluckschmerzen in der Hals-Nasen-Ohren-Heilkunde – Die Zungenbeintendopathie. Manuelle Medizin 1988;19:85. (Cited in: Lewit K. Manipulative therapy in rehabilitation of the locomotor system. 3rd edn. Butterworth Heinemann, Oxford. 1999:22 ENT

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Gastrointestinal

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Appendix B

Compilation of References Regarding Atlantoaxial Subluxation in Grisel's Syndrome

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