

Chiropractors as Primary Spine Care Providers: precedents and essential measures

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Chiropractors have the potential to address a substantial portion of spinal disorders; however the utilization rate of chiropractic services has remained low and largely unchanged for decades. Other health care professions such as podiatry/chiropractic, physiotherapy and naturopathy have successfully gained public and professional trust, increases in scope of practice and distinct niche positions within mainstream health care. Due to the overwhelming burden of spine care upon the health care system, the establishment of a 'primary spine care provider' may be a worthwhile niche position to create for society's needs. Chiropractors could fulfill this role, but not without first reviewing and improving its approach to the management of spinal disorders. Such changes have already been achieved by the chiropractic profession in Switzerland, Denmark, and New Mexico,

Les chiropraticiens ont la possibilité de traiter une partie importante des affections vertébrales, mais le taux d'utilisation des services de chiropratique est resté faible et largement inchangé depuis des décennies. D'autres professions de la santé telles que la podologie, la physiothérapie et la naturopathie ont réussi à gagner la confiance du public et des professionnels, améliorer leur champ de pratique et développer des créneaux distincts au sein des systèmes de soins de santé dominants. En raison de la lourde charge que placent les soins de la colonne vertébrale sur le système de soins de santé, la création d'un « prestataire de soins primaires de la colonne vertébrale » pourrait combler un créneau utile pour satisfaire les besoins de la société. Les chiropraticiens pourraient assumer ce rôle, mais non sans avoir d'abord examiné et amélioré leur approche de la gestion des affections vertébrales. Ces transformations ont déjà été réalisées par la profession chiropratique en Suisse, au Danemark et au Nouveau-

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whose examples may serve as important templates for renewal here in Canada.

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Introduction:

Between 1999 and 2008 the mean inflationary adjusted costs for ambulatory neck and/or back pain in the United States increased by a factor of 95%.¹ According to the study by Davis et al the largest proportion of increased costs are associated with specialty visits rather than primary consultations, clearly indicating that spine care places a tremendous burden upon the health care system.¹ Davis et al make recommendations with respect to cost containment for spine-related disorders which are similar to those put forth by Maniadakis and Gray ten years ago; and many of these revolve around reducing the reliance on specialty management.² A number of professionals with diverse backgrounds (chiropractors, massage therapists, physical therapists, osteopaths, and physicians) care for spinal pain patients. However unlike some other health care professions that have focused upon the management of condition-specific maladies, no one group has chosen to do so for certain aspects of the spine patient. Perhaps lessons learned from other condition-specific professions such as optometry and podiatry could provide important guidance in this regard.

Precedents for Professional Growth and Development:

Optometry:

For many years prior to the 1970s, the optometry profession struggled with its identity and status in the health care field. Other health care professions regarded optometrists as glorified technicians providing vision assessments and eyeglasses for the general public.³ However, subsequent to a pivotal meeting in 1968 (where the optometry leadership came to terms with the profession's shortcomings and subsequently enacted crucial steps necessary to rectify these problems), fundamental changes

Mexique. Leurs exemples peuvent servir de modèles importants pour la réforme au Canada.

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MOTS CLÉS : soins primaires, colonne vertébrale, chiropraticien

were made with respect to the utilization of pharmaceuticals and optometric education. Thereafter revised state laws including enhanced legislation came into effect.³

Podiatry and Chiropody:

Podiatry was first licensed in 1895⁴, and many years later in 1978 admission pre-requisites and educational curricula changed to better parallel that of mainstream medicine. The chiropody profession illustrates a pattern of professional progress similar to podiatry. Chiropody education spans three years, and the Chiropody Act of 1991 outlines minor surgery (and, more recently, limited prescription rights) within chiropody's regular scope of practice.⁵ Today both podiatry and chiropody are quite well integrated into the contemporary health care system.^{4,6}

What optometry and podiatry have in common is that a necessary combination of political will and respect for scientific research 'from within' led to successful integration and the establishment of a niche position within the broader health care system for their respective condition-specific professions.

Naturopathy:

Naturopaths in Ontario and British Columbia have recently gained the legislative right to the prescription of certain drugs.⁷ In some areas, naturopathic doctors can also perform minor surgery.⁸ Naturopathy encourages disease prevention and responsibility to one's own health⁸ but despite precedence for natural treatment, the profession realizes the need for an expansion in its scope of practice and greater collaboration with other health care providers.

Chiropractic:

Chiropractors study for a minimum of four years (normally following at least a baccalaureate degree) with a curriculum that has a significant emphasis on the diagno-

sis and management of spine-related disorders. Currently, the World Federation of Chiropractic (WFC) website lists 41 chiropractic schools globally, most of which reside in the United States.

The chiropractic profession like other health care delivery professions has developed evidence-based clinical practice guidelines for the management of various conditions including but not limited to neck pain⁹ and headaches¹⁰. However despite the development of these guidelines there remains much heterogeneity in the provision and style of chiropractic services. A recent Internet-based search of Google and YouTube yielded 22,500 hits using ‘chiropractic treatment’ as a search term. The first page of the Google search listed such items as ‘chiropractic care may not be as safe as reported’, ‘animal chiropractic’, and ‘dangers of chiropractic under-reported’. The ‘dangers of chiropractic under-reported’ quote was taken from a systematic review published in the *New Zealand Medical Journal*.¹¹ Clearly an unscientific Google search using such an arbitrary term as ‘chiropractic treatment’ does not define a profession. However analogous searches in the context of other health care professions do not yield similar controversial results.

Utilization, Challenges and Milestones:

Appropriate treatments offered by chiropractors can provide benefit to patients yet the percentage of back pain patients that consult chiropractors has remained stable at relatively low utilization rates.^{1,12}

Despite progressive educational and legislative changes, beginning in 1963 chiropractic endured a prolonged and tenacious attempt by the American Medical Association to eradicate the profession¹³. The AMA was investigated for violating federal antitrust laws and finally the conspiracy was brought to an end in 1980.¹³ Is it possible that at least some of the motivation behind the efforts to eradicate chiropractic included unscientific/unjustifiable claims and practices made by chiropractors?

In 1975 the National Institute of Neurologic and Communicative Diseases and Stroke arranged a conference on spinal manipulative therapy and as a result of this conference chiropractic ignited its involvement in scientific research.¹³ The *Journal of Manipulative and Physiological Therapeutics* emerged in 1978 as a direct result of this need to integrate scientific research in chiropractic clinical practice.¹³

Primary Spine Care Provider (PSCP):

Low back pain is associated with a lifetime prevalence of up to 80%.¹⁴ It is a major source of spinal disability and is ranked amongst the top five health care complaints with approximately 27 million patient visits per year in the USA.¹⁵ Despite the obvious burden of back pain on the health care system, according to the 1996-97 Ontario Health Survey only 9.9% of the population seeks chiropractic care.¹⁶

In order to improve spinal pain assessment and treatment, the PSCP should have specialized training in matters related to the spine, maintain an evidence-based practice and a clear understanding of when and to whom to refer appropriate patients. The PSCP should also be intimately aware of the capabilities of other spine care providers who can provide necessary complementary interventions (both surgical and non-surgical). Akin to optometrists for eye conditions, the PSCP would not assume the role of a primary care physician, but instead serve as the expert in a subset of spinal disorders. In this regard, why would the PSCP not be a chiropractor?

The World Federation of Chiropractic (WFC) defines chiropractors as “spinal health care experts in the health care system”¹⁷ suggesting that the WFC sees the chiropractor as the PSCP. Although chiropractic expresses particular focus on the spine, it must be recognized that interest and attention alone do not translate into expertise. Expertise requires extensive knowledge, training and skill in the relevant field and a clear understanding of when to refer a patient to other experts.¹⁸ In Canada, chiropractors have access to limited diagnostic imaging, and unlike chiropody and naturopathy they do not have prescription rights.¹⁹ Regrettably, the public does not uniformly regard chiropractors as spinal health care experts, presumably because chiropractors have not yet—at least in the eyes of the public—earned such a distinction. The 2009 national survey conducted by the Canadian Chiropractic Association revealed that 60% of Canadians recognize that chiropractors treat back pain, and just over 40% regard chiropractors as experts in back pain.²⁰

Despite the challenges faced by the spinal pain patient and the host of providers involved, no profession has meaningfully embraced the role of the PSCP. Meanwhile, evidence supports the efficacy of chiropractic treatment for back pain, neck pain, and headaches⁴ that is at least as good as any other available therapy and in some cases

superior.²¹ Furthermore there is evidence that properly accessed and provided chiropractic treatment has the potential to reduce health care costs by hundreds of millions each year.^{22,23,24,25} In light of the preceding there seems to be an obvious disconnect between what chiropractic as a profession would like to represent and the reality of public perception. Refining the profession's expertise by demonstrating excellence with respect to the management of spinal disorders would provide the chiropractic profession with much needed recognition, cultural authority and a well-deserved niche role for managing patients with spinal pain and dysfunction.¹⁸

Among health care providers in general, chiropractors have been ranked lowest with respect to honesty and ethics.⁴ Although chiropractic has made improvements in this area, it lacks a reasonable level of public and inter-professional trust and confidence.^{4,19}

Standardization in Clinical Practice:

It could be argued that chiropractic suffers from too much tolerance of clinical practices that do not meet evidence-based standards. At the very least, chiropractic should realize that ongoing references to confusing terminology such as 'subluxation' without clarifying what this term is meant to convey is a stumbling block to the advancement of the profession.²⁶ Also surprisingly there are numerous associations/groups within chiropractic that suggest that diagnosis is unnecessary and that chiropractic need only detect and remove the 'subluxation'.^{19,27} We do not dispute the existence of mechanical spinal pain that is amenable to spinal manipulative therapy; in fact there is good evidence to this effect. However the mechanical lesion that is the subject of spinal manipulation is yet to be scientifically defined and characterized. As health care providers, should chiropractors not also follow best practices and standardization of approaches to diagnosis and treatment? An example of how standardization of approaches to treatment can be helpful is embodied within The Standardized Spine Care Pathway that has demonstrated cost-effectiveness and patient satisfaction in spinal assessment and treatment at a health care facility in Plymouth, Massachusetts.¹⁴ This model involves the triage and appropriate categorization of patients for treatment by chiropractors in a hospital-based setting.¹⁴ Overall, 95% of patients in this study deemed the care they received to be of excellent quality and studies con-

cerning this approach led to average pain ratings dropping from 6.2 to 1.9 on a scale of 1-10.¹⁴ Perhaps this approach to the diagnosis and treatment of spine conditions by chiropractors in other jurisdictions would produce similar benefits.

Research and Academic Affiliation:

If chiropractic has the desire to assume a leadership position in spine health, it should also take a lead in spine research. The profession is making headway on several levels in this regard, especially in Canada through the initiatives of the Canadian Chiropractic Research Foundation (CCRF). The CCRF, acting in concert with the CCA and various provincial bodies, has created chiropractic research chairs within a number of universities throughout Canada, thereby creating a footprint for the profession within institutes of higher learning and in specialty research areas. The Canadian Memorial Chiropractic College (CMCC) has also demonstrated professional leadership by establishing preliminarily situated, yet still integrated, chiropractic clinics within unique hospital-based settings at St. Michael's Hospital and at St. John's Rehabilitation Hospital, both of which are located in Toronto.

Recently, CMCC and the University of Ontario Institute of Technology have begun efforts to collaborate on an academic level. Affiliations with academic institutions that offer professional health care programmes could provide springboards to improved communication and superior education²⁸, ultimately elevating the profile of the chiropractic profession beyond these collaborative initiatives. In the meantime, so long as current public impressions continue to negatively affect the utilization of chiropractic²⁸, in Canada at least, university affiliation may be a necessary step towards convincing the public of the high quality of our chiropractic education.²⁸

Models of Spine Care Internationally:

The state of chiropractic differs from country to country and region to region. In Switzerland, legalization of the chiropractic profession occurred in 1939.²⁹ Chiropractic students there must pass the medical entrance examination and fulfill all basic medical courses.³⁰ Inter-professional referrals to chiropractors occur frequently with many patients receiving treatment in the early phases of spinal disorders.³⁰ Since 1995, chiropractors in Switzer-

land have also had limited prescription rights³¹, which is regarded as a valuable option by Swiss practitioners³², and which has paved the way for full integration of chiropractic in Swiss health care.³⁰

In Denmark, a chiropractor obtains a license to practice following a five-year Master's Degree and one-year internship programme, during which clinical training is conducted in both hospital settings and private clinics.³³

Similar to Switzerland and Denmark, in the United States there are some areas where chiropractors have obtained significant increases in their legislative acts. For example, chiropractors in New Mexico have recently obtained limited prescription rights and have had access to sophisticated imaging such as computed tomography (CT) scanning and magnetic resonance imaging (MRI) for some time now. According to the President of New Mexico Chiropractic Association, all chiropractors in that jurisdiction enjoy a diverse scope of practice. Some chiropractors have limited prescription rights and all chiropractors have access to advanced investigations including any imaging or laboratory study they deem necessary for the diagnosis and treatment of their patients (Robert Jones, DC, APC, President of New Mexico Chiropractic Association, personal communication, July 21, 2013).³⁴ The scope of practice in New Mexico includes manipulative therapy (for all skeletal articulations), physical therapy modalities, soft tissue manipulation, treatment by light (cold lasers), diet and exercise counseling, prescription of nutraceuticals, and prescription of over-the-counter medications.³⁵ Furthermore, with advanced training and certification, chiropractors in New Mexico can perform injectable procedures and prescribe from a limited pharmaceutical formulary.³⁶

The bid to obtain limited prescription rights in New Mexico met with tremendous opposition from some elements within our own profession. In fact, the International Chiropractic Association (ICA) and traditional colleges such as Life University and Life Chiropractic College West have protested against the inclusion of these procedures within the profession (Robert Jones, DC, APC, President of New Mexico Chiropractic Association, personal communication, July 21, 2013). These protests have resulted in the ICA joining a legal challenge initiated by the New Mexico medical board and New Mexico pharmacy board with respect to the intent and interpretation

of advanced chiropractic practice procedure law in New Mexico.^{37,38,39,40}

Could the Chiropractor Serve as the PSCP?

Essentially, the profession holds the keys to its own future. Increased collaboration, an emphasis on evidence-based treatment and continued efforts to broadly expand the research base will resolve many lingering obstacles. Since the role of the PSCP has not yet been claimed by any one provider group, there could be other professions interested in performing such a role. The function of the PSCP could easily be assumed by chiropractic, but this window of opportunity may be limited. If chiropractic does not seek to evolve, what role does chiropractic have left to perform? Lessons learned from international experiences in Switzerland, Denmark, and New Mexico could be applied to the provision of chiropractic practice worldwide, and that would have to adhere to the following success-related criteria: (1) be evidence-based, (2) be scientifically defensible, (3) be clinically-relevant and (4) embrace collaborative and integrated health care. Movement towards such an integrated model is already being undertaken by the physiotherapy profession. For example, advanced practice physical therapists have the legislative ability to prescribe analgesics and anti-inflammatory medications in the United Kingdom (effective April 2013) and similar changes in legislation are underway in Australia.⁴¹ Such changes in legislation reflect excellence in education and training, and confidence on the part of governmental regulatory colleges that such changes will be clinically effective, and cost-effective.

If the chiropractic profession wishes to assume the role of the primary spine care clinician it will be necessary to relegate the profession's traditional role as provider of the 'adjustment' (only) to the past.¹⁵ This PSCP role will require a number of changes, some perhaps easier to make than others. For example, qualities that the primary spine care provider ought to embody are:

- a) An in-depth knowledge of non-operative alternatives (including, pharmaceutical therapies, percutaneous invasive therapies and other treatments);
- b) Familiarity with surgical interventions and their evidence-based indications;
- c) The ability to both screen for psychosocial morbidity that may contribute significantly to the develop-

ment of spinal pain syndromes, and then professionally communicate with appropriate providers of care for these conditions and other aspects of biopsychosocial rehabilitation. This particular criterion represents a bold cultural shift intra-professionally, but will also set chiropractic apart from other candidate professions in this area.

- d) An understanding of the biological reality that the source of many spinal pain disorders is difficult, if not impossible, to identify;
- e) Acceptance of the notion that chronic spinal pain is often incurable;
- f) An ability to establish reasonable patient (and doctor) expectations at the outset of the patient-doctor relationship, and a commitment to addressing modifiable risk factors, activities and other behaviours during daily life, work and recreation.

With respect to clinical practice the PSCP will need:

- a) To understand the indications, risks and benefits of spine surgery and make recommendations appropriately following best evidence practices;
- b) To understand the differences between systemic/inflammatory disease and degenerative spine conditions; and
- c) To have a working dialogue with other spinal pain care providers such as family physicians, spinal surgeons, rheumatologists and internists in order to appropriately cross-refer.¹⁵

It has been stated that the chiropractic status quo threatens the future of the profession.¹⁹ What happens if chiropractic fails to reform? As other health care professions adapt according to evolving evidence to best meet societal needs, is it possible that chiropractic could lose its relevance? Podiatry, optometry, chiropody and naturopathy have made significant efforts in professional reform and modernization and as a consequence have made significant gains in their respective scopes of practice and legislation. If chiropractic aspires to become the PSCP of the present and future, it need not reinvent the wheel; it needs only to look as far as its own front door.

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