The Chiropractic Report

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Professional Notes

Understanding Back Pain

Back pain is the greatest cause of disability worldwide but, despite more progress in recent years, "we have a long way to go to really understand the nature of back pain." We do not yet understand "what the mechanisms of back pain are".

Most doctors and patients still have the outdated model of a specific pain source from a specific injury to a specific structure, and this "is the basis of most surgical treatment of pain". However there is frequently more than one source of pain, and real chronic pain and disability when the original cause of pain is gone. We now know about pain sensitization, which tells us that "it may well be that a local source of pain lights up pain pathways that later become autonomous even when the original pathology is resolved."

So says Dr Jeremy Fairbank in his 2014 Presidential Address to the International Society for the Study of the Lumbar Spine (ISSLS), given at the annual meeting in Seoul, South Korea but just published now in Spine.

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The Alpha and Omega of Spinal Healthcare

Chiropractors Worldwide Meet in Greece

WITH OVER 900 DELEGATES from 51 countries the World Federation of Chiropractic's 13th Biennial Congress, held at the Athens Hilton Hotel in Greece from May 12-16, 2015, was the largest and most representative chiropractic conference ever held in Europe.

It was held jointly with the 2015 Annual Convention of the European Chiropractors" Union (ECU), and hosted by Greece's national chiropractic association the Hellenic Chiropractors' Association (HCA).

This represented a return to the origins of the art of spinal manipulation, much praised by Hippocrates in ancient Greece, and to the country that gave the chiropractic profession its name. Over and above the main conference the Congress included:

- The General Assembly of the World Federation of Chiropractic (WFC), with reports from national associations of chiropractors from throughout the world. New associations of pioneering chiropractors voted into WFC membership in Athens are from Bahrain (2 chiropractors), Estonia (3), Malta (4), Malaysia (85), and Sri Lanka (3).
- The General Assembly and Symposium of the Fédération Internationale de Chiropratique du Sport (FICS). National chiropractic sports councils from all world regions reported on developments on sports chiropractic. FICS leaders reported on the inclusion of chiropractic services in the host medical services, and ongoing preparations, for major games events including the Toronto Pan-American Games in Canada (July, 2015), the Rio Summer Olympics in Brazil (2016) and the Wroclaw World Games in Poland (2017).
- Various side meetings to coordinate and enhance the international development of the profession- of regulatory boards, accrediting agencies and the CEOs of national associations sharing experiences and resources and building partnerships for the future.

The title of the main conference held May 14-16 was *The Alpha and Omega of Spinal Health Care,* and the Congress delivered true expertise and outstanding variety on this theme:

- There were pre-congress seminars on topics such as Dynamic Neuromuscular Stabilization (DNS) from Craig Morris and Inger Villadsen, Functional Neurology from Matthew Antonucci, McKenzie Methods from Gary Jacob and OTZ from Francis Murphy and Michael Hall.
- The first plenary session, opened by the Mayor of Athens Georgios Kaminis and 15 minutes of live Greek music and dance, had keynote lectures on the history, biomechanics and neurology of spinal manipulation respectively from Jan Hartvigsen (Denmark), Greg Kawchuk (Canada) and Scott Haldeman (USA).

Chair, WFC Research Council and Program Director Dr Greg Kawchuk at the opening session.

• The next session had international experts on neurological aspects of spine care including Stuart McGill, the biomechanics expert from Canada, Paul Hodges, the Australian physiotherapist who is a leading researcher on physical changes in the brain in response to chronic pain, and chiropractic experts Cynthia Peterson (imaging), Heidi Haavik (neuromatrix) and Matthew Antonucci (functional neurology).

• The second morning featured an interdisciplinary panel of speakers then audience participation on contemporary issues on spine care, and on the new opportunities for the chiropractic profession. • The third and final morning had lectures on special populations – seniors, children, expectant mothers and infants – then a session on chiropractors as **the primary care experts for spinal health and wellbeing.** Dr Gerry Clum for the WFC, and Dr Bill Meeker for Palmer College, explained the two international consultations that have supported this now internationally agreed market identity and role for the chiropractic profession.

Speakers from various world regions reported support for this identity in their countries – for example Dr Laurie Tassell from Australia, Dr Kei Takeyachi from Japan and Dr Caroline Mwendwa from Kenya.

• Afternoons offered many concurrent workshops and original research presentations. The four research sessions, with 40 speakers presenting the best current chiropractic research internationally, were standing room only.

"This was my first WFC Congress," said Dr Anthony Hamm, President of the American Chiropractic Association, "and everything about it was outstanding, highly motivating, and beyond my expectations. This included the quality of the academic and social programs, the exposure to colleagues from throughout the world, and the overall optimism and enthusiasm for chiropractic and its future."

Many doctors of chiropractic will be interested to understand what took place when the profession's leadership and so many of their fellow chiropractors met in Athens, and what future for the profession was seen and discussed. Therefore, this issue of this publication reports on the Athens Congress, with a principal focus on the main conference.

B. Main Conference

2. **The Alpha – Spinal Manipulative Therapy.** As befits a chiropractic meeting looking at *The Alpha and Omega of Spinal Healthcare* the opening session was on spinal manipulation – including its history and what is known about its biomechanical and neurological mechanisms. With respect to history, opening speaker Dr Jan Hartvigsen of Denmark explained that spinal manipulation had been used by many medical practitioners and lay healers in the treatment of a range of diseases for many centuries. However DD Palmer and others gave new impetus to this around 1900, developing treatments and rationales and "thus formed the basis for what is today considered modern spinal manipulation."

During the 20th century, in the words of Danish historian Per Jorgensen, author of the recently published *The History of Chiropractic in Denmark* "chiropractors have gone from using one treatment to treat many diseases to using many treatments to treat few diseases." Hartvigsen quoted this as capturing "accurately the role of spinal manipulation in contemporary health and chiropractic care."

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Utilization of spinal manipulation has grown steadily in recent decades. "In spite of many anecdotes, there is little evidence that any one form of manipulation or manipulation delivered by a specific profession produces superior clinical results when compared to other forms."

*Opening session speakers (*from left*) – Jan Hartvigsen, Scott Haldeman, Christine Goertz and Greg Kawchuk.*

3. Next were lectures on facts and fiction with respect to the biomechanics and neurology of spinal manipulation from two foremost international authorities. Dr Greg Kawchuk of the University of Alberta in Canada, spoke on biomechanics. Dr Scott Haldeman of the University of California at Irvine spoke on neurology. DD Palmer and the early chiropractic profession, Haldeman noted, postulated that spinal subluxation could cause interference with the nervous system through nerve compression, and that an adjustment could reduce compression at the spinal level influencing all aspects of health. Critics denied any such cause of nerve compression. What was fact or fiction for this and other theories of nerve interference? Haldeman reviewed four theories:

- Nerve compression.
- Irritation of nerves supplying internal organs by irritation of spinal nerves with which they are connected within the spinal cord, as illustrated in the Meric Charts.
- Somato-autonomic reflexes.
- Change in central spinal reflexes (e.g. H-reflexes or evoked responses on peripheral nerve stimulation).

For all of these theories it was a fact that a growing body of laboratory research evidence demonstrates the existence of the underlying neurological mechanisms for the theories. However there remains a lack of research demonstrating that these mechanisms are responsible for pathology, or are clinically important.

Haldeman then drew attention to a separate body of clinical and epidemiological research that might explain the clinical observations of chiropractors on the impact of spinal manipulation and chiropractic care on non-musculoskeletal pathology and health. This developing research demonstrates "chronic spinal pain is associated with a number of physical and mental co-morbidities. Of particular interest is the observation that people with chronic spine pain have reduced grey matter in the brain."

What makes these observation more likely to be clinically significant is the finding that these changes can be seen in test animals which are subjected to chronic pain stimuli and that these changes can be reversed in patients who successfully respond to treatment with reduction of pain. Although these changes have been reproduced, their exact clinical importance remains unknown and there is a risk to extrapolate or misquote this new research in the same manner as any other theory that purports to prove that SMT has a clinically important impact on the nervous system.

4. **Neurological Dimensions of Spinal Healthcare.** This was the subject of the second session with lectures on neurological imaging (Cynthia Petersen, Switzerland), neuroplasticity and patterns of motor control (Paul Hodges, Australia), injury mechanisms initiating the painful spine and pain provocation assessment (Stuart McGill, Canada), chiropractic and the neuromatrix (Heidi Haavik, New Zealand) and applying neuroscience to clinical practice (Matthew Antonucci, USA). The capacity for change in structure and function of the brain in chronic pain that Haldeman had referred to – neuroplasticity – was reviewed in detail by a foremost researcher in this field Dr Paul Hodges (*left*). Hodges, Director of the National Health and Medical Research Council Center for Clinical Research Excellence in Spinal Pain, Injury and Health at the University of Queensland in Australia, holds three doctorates, one in physiotherapy and two in neuroscience. He explained:

- Motor control ("all the motor and sensory processes associated with movement") is changed in pain. This change or neuroplasticity "is only beginning to be understood" but opens the possibility of new treatments "to change the nervous system or to prepare or prime it for such change".
- Motor control changes range from subtle changes in coordination between muscles to complete avoidance of activity. These changes influence how individual tissues in the body are loaded and how they respond to loads from internal and external forces.
- The relevance of this for the onset, recurrence or persistence of pain "will depend on many issues, including the type of pain (nociceptive, neuropathic, central) and time-point along the continuum from acute to chronic persistent pain."
- "One element of the system that is commonly compromised in the presence of spinal pain is the contribution of deeper trunk muscles. This is particularly relevant as these muscles have a primary role in control of fine tuning of motion, particularly intervertebral motion via direct effects of muscle contraction plus mechanisms that involve tensioning the fascial system and modulation of intra-abdominal pressure. Delayed or reduced activation of the deeper muscles may present specific problems for optimal function of the spine. Most individuals also present with some component of augmented muscle activity (which may excessively load the tissues), modification of posture/alignment, and modification of movement."
- Neuroplastic changes occur at multiple levels, including the muscle, spinal cord and motor cortex.
- Treatment needs to be individualized to treat the specific underlying mechanisms and changes. The existence of multiple mechanisms/potential causes of pain provides scope for a range of interventions and rehabilitation "from locally acting treatments at the tissue level, to rehabilitation of the organization of the higher centers of the brain."
- Tools to study neuroplasticity in the brain include neuroimaging (functional MRI to study blood oxygen level dependent (BOLD) changes related to brain activity during specific motor tasks and in response to a specific afferent stimuli) and electrophysiological techniques (measuring response to elec-

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Understanding Back Pain

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Fairbank is a British orthopedic surgeon, perhaps best known for his development and publication of the Oswestry Disability Index. When a leading back pain authority gives his views on what we do and don't know about the management of back pain, and this to the leading spine society on an important occasion, it is worth listening.

Fairbanks then gives six strategies for improving understanding and encouraging scientific engagement:

• Improving definitions of diagnostic groups (phenotypes). One example of how a current diagnostic group is not satisfactory is seen in a Japanese study of 1,000 middle-aged adults. 30% had a diagnosis of "severe lumbar spinal stenosis." However only 17% of that 30% had symptoms of neurogenic claudication – 83% had no severe symptoms at all.

• Standardizing "what (results) we measure" for low-back pain in research and practice, and selecting and agreeing upon a few standard outcome measures. The level of patient reported disability, as measured in the Oswestry, is one example.

• Recognizing the importance of placebo effects. To quote Fairbank:

"It is quite clear that the benefit of many of our interventions depends on the placebo response. These are real and powerful effects. We use these effects every day in the clinic. There is now very strong evidence from current research that placebo works. Irene Tracey, my guest speaker, has shown that placebo can have as strong an analgesic effect as opioids. Clinicians should celebrate placebo and use it at every opportunity. In a research setting, we may need new trial designs to identify the placebo responders more specifically so that we can better detect any treatment effect."

• Understanding our patients in terms of current understandings of pain mechanisms. As already mentioned Fairbank criticizes the view that there is a single pain source and single pain pathway as simplistic. Illustrations of this he gives are:

– Loss of sagittal balance and loss of muscle control as diffuse sources of back pain "that cannot have a single pain source."

– Muscle scientists have shown links between disc injury and rapid onset muscle wasting, "that deliberate injury to the disc will cause rapid changes adjacent spinal muscles."

– "We are now seeing evidence of major brain dysfunction in patients with chronic pain. This is not only in the pain pathway but actual brain shrinkage."

– There are functional alterations in the motor cortex that can be detected by transcortical magnetic stimulation. "Motor areas seem to shift in patients with back pain" and "we need more resources and more scientists… looking at cortical dysfunction of muscle control in back pain."

• Exploring many new theories about back pain, including those related to brain dysfunction. One example is the theory of cortical pain – pain from distress which occurs when there are mismatches between what signal the brain expects and what it actually receives from sensory input. Proprioceptive mismatch might cause pain – such theories need fuller investigation.

• Promote ongoing theoretical back pain discussions and research through professional organizations such as ISSLS.

What Fairbank says underlines the need for the chiropractic profession to be engaged in a multidisciplinary approach to the understanding and management of back pain. That is particularly the case because of the overall lack of funding for back pain research and practice.

As Fairbank notes "back pain does not have a good public profile because many sufferers are seen as lazy or work shy… we have to make the case for a complaint unpopular with the public, politicians and research scientists."

An important new advocacy group is the Global Alliance for Musculoskeletal Health, formerly known as the Bone and Joint Decade. All chiropractors should be aware of this organization, which has chiropractors amongst its leaders and seeks to establish national action networks (NANs) in each country. Its annual World Summit this year is to be held in Oslo, Norway from October 7-9 and is titled *Breaking Down the Barriers – Towards Integrated Care.*

Hosts are the Norwegian Musculoskeletal Network and the Norwegian BJD National Action Network, leader of which is Dr Jacob Lothe, President of the Norwegian Chiropractors' Association.

(Fairbank J (2015) *2014 ISSLS Presidential Address.* Spine 40 (10):669-673)

Other Research

Canada and France – SMT Under Challenging Circumstances – Experience Counts

A new study in JMPT from Martin Descarreaux DC, PhD, Claude Dugas PhD et al. from the world's two francophone chiropractic colleges – the Université du Québec à Trois-Rivières, Canada and the Institut Franco-Européen de Chiropratique (IFEC) in Paris and Toulouse, France has much of interest on the skill levels involved in spinal manipulative therapy (SMT) including:

• Discussion of the elements that mark expertise, namely preload force (gradual force applied to the spine before the thrust), impulse duration (time to peak force), peak force, and rate of force application For all of these graduating chiropractic students can show almost similar skill to experienced clinicians under ideal circumstances.

• Presentation of new evidence that students have less skill, however, when complexity is added. In this study experienced chiropractors were superior to graduating students performing thoracic spinal manipulation with the table raised above the individual preferred setting and/or while standing on a rocking board.

Details are:

• The aim of the study was to assess the comparative abilities of students and experienced clinicians to adapt to less than ideal circumstances for performing skilled spinal manipulative therapy, "to compensate for environmental changes during motor task execution". The technical term for this is transfer capability, which is also defined as "the persistence of acquired capability for performance in a given motor task when switching to other related motor tasks."

• The 49 study participants were from three different levels of training and clinical experience.

– Group 1 (n=16) – fifth-year students with 3 years of supervised SMT practice.

– Group 2 (n=17) – sixth-year students with the above 3 years training plus one year of supervised clinical practice.

– Group 3 (n=16) – experienced chiropractors with 2-26 years of clinical practice.

• All participants completed 10 consecutive thoracic spine manipulations on an instrumented device under four circumstances:

– At their preferred table height and positioning.

– With the table raised 15cm above the preferred setting.

– With the table raised 10cm above the preferred setting.

– The participant standing on a rocking board.

• Force-time profiles were recorded. See the paper for full results but key results were:

– The experts in Group 3 showed more expertise than trainees in terms of thrust duration and rate-of-force application even under preferred circumstances.

– Under unusual conditions experts were able to maintain similar preload forces and skill to their preferred conditions, whereas trainees were not. Although both experts and trainees chose a similar preload-duration trade off under challenging circumstances "experts were able to maintain significantly higher rate of force production than trainees throughout the challenging performance conditions".

The authors recommend that chiropractic clinical training should include delivering SMT under varied and challenging practice conditions to increase overall skill level.

(Descarreaux M, Dugas C et al. (2015) *Learning Spinal Manipulation: The Effect of Expertise on Transfer Capability.* J Manipulative Physiol Ther 38:269-274)

Netherlands, Australia and USA – MRI Accuracy – Chiropractors, Chiropractic Radiologists and Medical Radiologists

Spine has just published the first study directly comparing the performance of chiropractors, chiropractic radiologists and medical radiologists in reading lumbosacral spine MR images. The study is from an interdisciplinary team in the Netherlands lead by Annemarie de Zoete DC and Raymond Ostelo PT, PhD from the VU University Medical Centre in Amsterdam.

On one hand this reports overall moderate intraobserver agreement (agreement between members of the same professional group), and interobserver agreement (agreement between members of the different groups), and reasonable validity/accuracy. On the other hand agreement and validity of MR image reading within each group was "modest at best" and "a substantial number of MR images were misclassified".

Details on the study include:

• Participants were five medical radiologists from the Netherlands, five chiropractic radiologists from Australia and the United States and six chiropractors in private practice in the Netherlands.

• They were asked to assess images from 300 sets of MR images of the lumbosacral spine of patients referred by primary care clinicians and specialists:

– In Classification A, identifying malignancy, fracture, infection, or herniated disc and/or central stenosis *with definite nerve root involvement*.

– In Classification B, identifying herniated disc and/or central stenosis *with doubtful nerve root involvement*.

• De Zoete, Ostelo et al. strongly support clinical guidelines recommending against routine use of MRI for patients with LBP, on grounds of lack of need, cost, poor correlation between image findings in clinical examination – but now also on grounds of many false positives and significant unreliability in interpretation even with specialists.

(de Zoete A, Ostelo R et al. (2015) *Diagnostic Accuracy of Lumbosacral Spine Magnetic Resonance Image Reading by Chiropractors, Chiropractic Radiologists, and Medical Radiologists*. Spine 40(11):E653-E660.)

USA and Puerto Rico – History Revisited

The annual conference of the Association for the History of Chiropractic (AHC) held at the Wyndham Grand Hotel in Puerto Rico on June 19-20, 2015 included two well-researched papers that challenged accepted wisdom on the early history of the profession. On a detailed review of contemporary documents Dr Steven Troyanovich, Editor of the AHC Journal concluded:

• DD Palmer's first adjustment of Harvey Lillard, seen as the founding event for the chiropractic profession, took place in January 1896 – not the accepted date of September 18, 1895.

• First use of the word subluxation, and the concept that nature rather than the healer's intervention is what cures, were by Solon Langworthy of the American School of Chiropractic rather than DD Palmer. DD Palmer was convicted of practicing medicine without a licence and went to prison because he claimed to cure disease with his special powers as a magnetic healer. Langworthy said that with chiropractic it was nature which gave the cure – and was not prosecuted. DD Palmer soon agreed.

Dr Joe Foley of Virginia produced convincing evidence that Valdeenia Simons, who claimed to be the daughter of Harvey Lillard and addressed many chiropractic meetings on that basis, was not. She will never be challenged on this as she died at age 95 in 1990.

These and other history papers will appear in the annual journal of the AHC to be published later this year.

trical or magnetic stimuli – e.g. transcranial magnetic stimulation or TMI).

• Understanding the processes of plastic changes in neural circuits provides potential targets for treatments. Such processes can be modified, for example, by motor training, cortical stimulation and peripheral electrical stimulation. "The challenge is to find the optimal methods to drive this change in clinical practice."

5. The plenary session presentations on the second morning were on *Opportunities in Spinal Healthcare.* Obviously this is something that cannot be discussed effectively without patients and other relevant professions being present and represented. They were.

Seven speakers asked to speak on the Rules of Engagement, or in other words the way in which chiropractors can be successful in benefiting from the new opportunities in spinal healthcare, were as follows:

• *Rule 1 – Understanding the Need.* Speaker was Professor Anthony Woolf (*right*), Professor of Rheumatology at the Universities of Exeter and Plymouth in the UK and Chair of the International Coordinating Council of the Bone and Joint Decade/Global Alliance for Musculoskeletal Health. He was joint leader of the Musculoskeletal Expert Group, and one of the authors, for the recent Global Burden of Disease study published in The Lancet and reporting that back pain (first) and neck pain (fourth) were among the leading causes of all disability globally[1]. His key points included:

– There is an "enormous burden" of neck and back pain, and these conditions are not well understood or managed.

– The traditional model of largely short-lived episodes of pain for most patients is changing. Data showed that "many cases are long-standing or recurrent; that neck and back pain often starts in children and younger people; that activities are limited and participation is restricted between episodes to avoid recurrence; and that the biopsychosocial model highlights (other) important factors."

– There needs to be well-developed guidelines and better implementation of existing guidelines. Too much practice is inconsistent with evidence-based practice as summarized in guidelines.

– "The high prevalence, enormous disability and the personal and societal costs justify a high priority for developing and implementing policies and practices to prevent and control low back pain." In summary, patients are not managed well and there is need for significant change.

• *Rule 2 – Deliver Value.* Speaker was Dr Anthony Hamm, currently President of the American Chiropractic Association. Dr Hamm (National University of Health Sciences, Chicago, 1979) has practiced chiropractic full-time for 35 year in Goldsboro, North Carolina. He holds a post-graduate diploma in orthopedics and a significant part of his practice is on medical referral. He is experienced in healthcare quality measure development and has served as an advisor on chiropractic care to third parties such as Cigna Government Services. He noted:

– In the USA there is a strong move to "value-based purchasing of healthcare" with a shift in emphasis from provider background (whether you are an MD, DC or other) or volume of services to value.

– Value, as described in the Triple Aim of the US Affordable Care Act is positive outcomes, high patient satisfaction and cost effectiveness. Services that meet these criteria will grow.

– The chiropractic profession is well-positioned to accomplish the three points of the triple aim.

• *Rule 3 – Listen to Your Patient.* Speaking, and representing patients, was Kathy Cambas, a journalist originally from America but resident in Athens for many years and, not surprisingly, a satisfied chiropractic patient. Ms. Cambas holds a BA from the University of Miami (Mass Communications – Broadcast Journalism and Marketing) and is a former Managing Editor of the Hilton Greece Magazine. Ms. Cambas told a familiar story, one that chiropractors do not tire of hearing:

How many times have we seen patients finally visiting a chiropractor and finding relief after years of mainstream medical care and medications have failed? I, myself, have seen patients going in to the chiropractor, hardly able to walk, limping on a cane, and walking out pain-free. I've seen an infant with torticollis who was referred to months of physical therapy with no results, only to improve dramatically after chiropractic care.

Ms. Cambas discussed the importance of listening to the patient, something that was a hallmark of chiropractic care for her, and a reason she had been so satisfied with chiropractic care and had accepted the invitation to speak at the conference. She elaborated on five active listening skills – undivided attention, appropriate body language, acknowledgement of the patient, non-judgmental attitude, and response.

• *Rule 4 – Motivate Health Behaviour Change*. Speaker was Dr Gary Jacob (LACC, 1978) of Los Angeles, with over 35 years of clinical practice and whose post-graduate qualifications include a Doctor of Oriental Medicine (1983) and a Masters in Public Health (UCLA, 2003). He was outstanding, and the appropriate next speaker after Ms. Cambas with his focus on active listening and motivational interviewing (MI). Key points included:

– *Behavior* is what people do. *Motivation* is the process that energizes/maintains a behavior. *Health behavior change,* his subject, concerns changing behaviors in order to achieve better health.

– The chiropractor is in a unique position to motivate health behavior change in multiple domains and can be a key player in this regard, as medical systems fail to dedicate the education, time or resources required to accomplish that goal.

– Many chronic complaints can be prevented, controlled or abolished by health behavior changes. The Leading Health Indicators, related to multiple illnesses, that can be addressed within a chiropractic practice via health behavior changes include: physical activity; overweight & obesity; tobacco use; substance abuse; mental health; injury prevention and environmental quality.

– There are various obstacles to motivating health behavior changes. Practitioners do not receive training regarding behavior change. Some believe that all that they can do is provide the appropriate information; if the patient does not change their health behavior it is the fault of the patient and not the provider. Another obstacle is that if the healthcare provider's main interventions involve patients being passive

receptacles of care, it may difficult for both practitioner and patient to appreciate the need for changing healthcare behaviors.

– The motivational interviewing (MI) approach provides the counseling skills to accomplish and maintain health behavior changes. It recognizes that change can best be affected by working with a patient's perceived desires, abilities, reasons and needs for change. MI provides a strategy on what to say and what not to say, as well as when and how to say it. It is based on the notion that most patients already know what they are supposed to do but are ambivalent about making change.

By encouraging "change talk," patients are more likely to plan and execute behavior changes based on what they believe to be (and what in reality are) their own ideas. MI is a collaborative effort that honors the autonomy of sufferers who are encouraged to draw upon their own motivations and resources. It considers different communication styles for improving a practitioner's abilities to meaningfully ask questions and to be an "active listener" so as to become an effective provider of the information and skills needed to realize health behavior changes that become lifestyle habits.

For much more on MI see the July 2013 issue this report at www.chiropracticreport.com.

• *Rule 5 – Target Your Treatment to the Right Patients.* Speaker was Dr Nadine Foster (*right*), a UK physiotherapist who is Professor of Musculoskeletal Health in Primary Care at the Arthritis Research Primary Care Center at Keele University. According to the post-Congress Survey she was one of the most admired speakers. It was Dr Foster, together with Danish chiropractor Dr Jan Hartvigsen who was moderating the session in which she spoke, who wrote the opinion piece in the British Medical Journal suggesting that non-medical providers such as chiropractors and physiotherapists should be used increasingly in primary care for patients with musculoskeletal conditions including back and neck pain.[2]

Dr Foster noted that stratified care for low-back pain, which involves targeting treatment to sub-groups of patients based on their key characteristics (e.g. prognostic factors, likely response to specific treatment, suspected underlying causal mechanisms) has a goal of fast-tracking patients to treatments in ways that maximize benefit, reduce harm and increase efficiency. This sub-grouping and targeting of care is now becoming a dominant issue in research and clinical practice. Stratified care is particularly suited to low-back pain patients because of the numerous treatment options, some of which are costly and associated with risks, and the sheer number of patients which makes it unsustainable to offer resource intensive treatments to everyone.

She then discussed the STarT Back (Subgrouping for Targeted Treatment) approach to stratified care that has been developed and tested by her team at Keele University. It allocates patients to one of three subgroups (low, medium and high risk) and has a growing body of research evidence suggesting clinical benefits when patients at medium and high risk are 'fast tracked' to an appropriate course of treatment whilst those at low risk, who have a good prognosis, are steered away from over-investigation and treatment. The key advantages of STarT Back are:

– Inclusivity – all patients are sub-grouped.

– Simplicity – patients complete a brief 9-item, self-report tool which includes key prognostic and modifiable physical and psychosocial factors, and is valid and sensitive to change.

– Matched treatments for each patient sub-group are underpinned by research evidence and expert consensus.

– For patients at low risk - matched treatment comprises a package of care involving assessment, reassurance, medication advice, self-management advice and a clear explanation to legitimise symptoms and discourage over treatment or investigation.

– For patients at medium risk - matched treatment provides re-activation support using evidence-based, conservative treatments offered by clinicians who provide manual therapy and exercise.

– For those at high risk of persistent disability - matched treatment includes psychologically informed physical therapy, combining physical and psychological treatment approaches.

For all relevant publications see http://www.keele.ac.uk/sbst/.

• *Rule 6 – Follow Protocols.* Speaker was UK chiropractor Dr Mark Gurden (AECC,2000), from Braintree, Essex who has worked with the National Health Service (NHS) and the UK Department of Health in the development of national specifications for the treatment of back and neck pain, and has contracts for the provision of chiropractic services with NHS funding.

Dr Gurden spoke of protocols in the broad sense of clinical pathways or guidelines or quality standards that guide clinical decision making and improve quality of care. He reviewed potential benefits and harm. Critics may argue that the use of protocols/guidelines limit scope of practice he said, but his experience has been that when used appropriately clinical protocols do not constrain clinical freedom in addressing individual patient needs.

One of the benefits of the existence and use of clinical guidelines/protocols has been opening the door for the commissioning of state-funded chiropractic care in the UK. This has been through the 2009 guidelines on the management of low-back pain from the National Institute for Health and Care Excellence (NICE) which recommend the use of spinal manipulation and recognize the role of chiropractors in providing this intervention.[3]

• *Rule 7 – Be Evidence-Based.* Final speaker on the Rules of Engagement was Dr Charlotte Lebouef-Yde (AECC, 1974), Professor of Clinical Biomechanics at the University of Southern Denmark. Early in her career Dr Lebouef-Yde was in chiropractic practice in France and Sweden for 10 years. She is now engaged full-time in teaching and research and holds a Masters in Public Health (1991) and a PhD in epidemiology (1996).

She explained that the issue is not whether or not to be evidence-based in the provision of treatment - everyone should be – but what this means. "Clinical science is not black or white, and the clinicians must learn to practice evidence-based in a real world with many grey zones."

Evidence-based practice (EBP) does not limit a clinician to treatments proven to work. "This would mean that most clini-

cal activities are out of our reach, as only relatively few components of daily practice for all health professionals have been studied and even fewer found to be 'valid'".

She proposed a set of logical steps for assessing whether use of a proposed procedure was evidence-based, using the analogy of traffic lights. If there is clear evidence against the appropriate use of a procedure this represents a red light. If there is no compelling evidence for or against one should proceed with caution, assessing results carefully. If one or more of the three arms of evidence – research, your clinical experience, your patient's preference – suggests likelihood of benefit outweighs harm there is a green light to proceed.

6. On the third and final morning of plenary lectures the first session was titled *Spinal Healthcare: Managing Special Populations in your Practice.* Presentations related to infants and toddler (Joyce Miller), the significance of spinal pain in adolescents (Lise Hestbaek), pre and post-natal spine care (Rosemary Oman), assessing and managing mobility issues for seniors (Paul Dougherty) and doing the same for seniors with psychosocial issues (Lisa Killinger).

The final session moved away from clinical practice issues to the question of the market identity of the chiropractic profession – and why this identity was so important for the future of the profession.

First Dr Gerard Clum, a Past-President of the World Federation of Chiropractic who was one of the Co-Chairs of its Identity Consultation in 2003-2005, explained the thoroughness of the global consultation that led to WFC member associations unanimously agreeing upon the market identity for the profession of "The spinal health experts in the healthcare system." Pillars or supporting statements expanding upon this core identity were:

- Ability to improve function in the neuromusculoskeletal system, and overall health, wellbeing and quality of life.
- Specialized approach to examination, diagnosis and treatment, based on best available research and clinical evidence with particular emphasis on the relationship between the spine and the nervous system
- Tradition of effectiveness and patient satisfaction
- Without use of drugs and surgery, enabling patients to avoid these where possible
- Expertly qualified providers of spinal adjustment, manipulation and other manual treatments, exercise instruction and patient education.
- Collaboration with other health professionals
- A patient-centered and biopsychosocial approach, emphasizing the mind/body relationship in health, the self-healing powers of the individual, and individual responsibility for health and encouraging patient independence.

Next speaker was Dr Bill Meeker, President, Palmer College, West Campus, San Jose. It was Dr Meeker, with Dr Scott Haldeman, who wrote the landmark article on chiropractic in the Annals of Internal Medicine in 2002 which gave an overall positive review of the modern chiropractic profession, but warned: "The profession has not resolved questions of professional and social identity… chiropractic stands at the crossroads of mainstream and alternative medicine."[4]

Dr Meeker explained the second and equally thorough consultation at Palmer College which had produced essentially the same market identity as that from the WFC, both as to the key identity statement – in Palmer's case "the primary care experts in spinal care and wellness" – and supporting pillars. (For much more background and detail on the two identity consultations and statements go to www.wfc.org/projects and www.palmer.edu.)

Policy and research leaders Drs Christine Goertz, USA, and Pierre Côté, Canada, then reviewed why a clear and concise market identity, and this based on spinal health which was at the center of chiropractic expertise, practice and research, was vital to the profession's future growth and success.

C. Conclusion

7. This, then, gives a sense of the quality and the high relevance to the future of the profession of the professional program at the Athens Congress. It was therefore good to see so many members and leaders of the global profession present, and the encouraging degree of collaboration, agreement and unity of direction. Often there has been a focus on divisions in the profession. Athens evidenced a high degree of international consensus and cooperation on the role of the modern chiropractic profession, its strengths and challenges, and where it should be going for future growth and success. TCR

References

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