INTERVIEW WITH DR JEB MCAVINEY

BSC, M Chiro, M PAINMED, FCBP

BY DR CRAIG MOORE

DR JEB McAVINEY

Jeb is a second-generation chiropractor who graduated from Macquarie University in 2001 and has practiced in Sydney and the UK. He is an expert in scoliosis bracing and rehabilitation and related research. Jeb has a private practice at the Sydney Scoliosis Clinic in Kogarah, runs visiting clinics in Melbourne, Brisbane and Adelaide and acts as a scoliosis consultant to the St George Private Hospital Spine Service. He regularly receives referrals of scoliosis cases from chiropractors, medical specialists and other health professionals.

What sparked your research interest?

In my final year at Macquarie University as part of my master's degree I did a retrospective study of 273 cases examining the relationship between the cervical lordosis and cervicogenic symptoms, which ended up being published in JMPT in 2005. The beauty of this study was that we started with the genuine null hypothesis, being that there was no link, but in fact the research proved us wrong and demonstrated a very strong link between loss of the cervical lordosis and cervicogenic symptoms. This is what sparked my initial interest. Later on I also did the Master of Pain Medicine which had a strong research component to it.

How did your Master of Pain Medicine come about? Why did you pursue this post-graduate degree?

I became very interested in both scoliosis treatment and in multidisciplinary management of chronic pain. My early motivation to study further was primarily to have the skills to converse better and work in a more integrated way with other health professionals. As the degree progressed there was a module on critical appraisal of research and this sparked a particular drive to examine the evidence behind chiropractic treatment of scoliosis and to explore the best treatment options chiropractors could use.

Tell me about your research within the field of scoliosis.

It began with research into a flexible scoliosis brace called the SpineCor brace. I started off with case studies then progressed to a multi-centre retrospective case series looking at the outcomes of adult scoliosis patients using the brace for the treatment of chronic pain and scoliosis progression. This study showed promising results which led to a large scale randomised trial of the brace in three UK hospitals which is currently ongoing. After this I started to examine the chiropractic evidence for scoliosis treatment via a systematic review and also became involved in research and development of new rehabilitation devices, 3 dimensional imaging and 3D braces for scoliosis treatment.

Tell me what your systematic review found.

The conclusion of that review revealed that there was no good evidence that spinal manipulation or chiropractic rehabilitation techniques had any influence on progressive adolescent scoliosis curves. There was limited poor quality evidence that chiropractic rehabilitation techniques can have an influence on adult scoliosis.

Is the evidence any better in validating that chiropractic can at least manage the pain, functioning or quality of life of those with scoliosis?

No. There were no papers that adequately assessed this question. There was one surgical paper which concluded there was no cost effectiveness or improved outcomes for any types of non-surgical treatment for adults with degenerative scoliosis and pain, however there were some major limitations to this study as well.

I'm surprised. In my own career I have seen chiropractic care help many patients who have scoliosis with their pain. What non-surgical approach does have the best evidence for the management of scoliosis?

It was surprising to me as well, as in my own clinical experience I have had patients I treated with chiropractic that have reported good improvements in their pain. However we are yet to have strong evidence to support this observation. In regards to the best non-surgical treatments, it depends on the age group. In children it is without a doubt bracing and in adults there is not much evidence either way. However with an aging population there is a growing need for more studies. We must provide the research if we are going to provide our care of scoliosis to both the public and within mainstream health.

It sounds disappointing, especially as we are working toward the identity of being the spine care experts and yet we have done so little research on one of the most visually recognisable of spine health conditions. It sounds like we have a lot of work to do if we wish to validate our place within non-surgical spine care for particular scoliosis sub-groups.

I agree more work is needed but I see it as an opportunity for the profession. Physiotherapy is moving forward with research through various therapy methods. Their evidence is also limited but they are proactively involved in research and development in this field. In the past the chiropractic research community has done very little in terms of either basic science or outcomes in the area of scoliosis. The various

chiropractic techniques have not yet provided any compelling, high quality evidence showing either improvement in pain and function in adults or an influence in the natural history in progressive curves in children. However with more research and new developments I hope that this may change.

For my part, I am currently involved in setting up a randomised trial in a Singapore hospital to compare the ScoliBrace against other types of bracing and therapy for scoliosis in children. I am also preparing a research submission to study the outcomes of traditional chiropractic management compared to specialised chiropractic rehabilitation therapies and bracing in adult scoliosis. I hope this research can help us better manage scoliosis within an aging population. We know that around 30% of people over age 60 and around 50% of people by 90 years of age have a degenerative scoliosis. This is a costly, mainstream condition with a recognised burden on the Australian community.

You have your own scoliosis clinic in Sydney and you work at the nearby St George Private Hospital as a non-operative scoliosis consultant where you co-manage spinal rehabilitation and orthopaedic spine bracing. That is a great achievement for a chiropractor, which I wish to acknowledge. Tell me what you do and how did that position come about?

I am part of the hospital's spine service and spinal orthopaedic team primarily due to my capacity with scoliosis bracing. It began with active referral of scoliosis cases to this hospital team and a presentation I made at the hospital in 2008. I had follow-up meetings with one of the surgeons and expressed my desire to collaborate professionally. He offered me the opportunity to join their team and consult as part of the team, which I've been doing since 2011.

Do these people also refer patients to you for non-operative care?

Yes.

And you also receive referrals from chiropractors from all over Australia. So what is the most common misconception chiropractors have about scoliosis in your experience?

Many chiropractors still think that adjustments or some other technique can stop the progression of scoliosis, especially in teenagers. This position can create a missed opportunity to intervene with treatments we know have a good chance of stopping the progression such as bracing. We can still play a role in co-management but we should not assume we can control the progression or promise to deliver a correction of the curve. This mindset is made worse by the reluctance of many chiropractors in general to refer patients to other health professionals within spine care.

Yes, I had an experience recently of a chiropractor who insisted he could take care of a child's scoliosis and had recommended to the parents that they cease co-management with the spine specialist.

That is troubling. Childhood scoliosis definitely needs co-management.

How do you see chiropractic better positioning itself inside the role of spine care experts more broadly?

We might be striving to be spine care experts but recognition of this role requires certain key elements. It starts with the quality of our education. If we water down the quality of our education it will make this less achievable. Further, we need more university-based chiropractic research to investigate what we do. Limited research has come out of Australia, particularly when compared to other countries of similar or smaller size. However after attending the NSW CAA Research Symposium and seeing the current work I am optimistic that this is changing.

Another achievement for you is that you are reviewer for the *European Spine Journal*. This journal publishes papers from professions across the spine care spectrum. Are you seeing an improvement in the papers that are sent in by the chiropractic profession?

Yes. The level and quality of papers is improving in general, but in some countries more than others.

You are presenting at the INSPIRE Sydney Spine Symposium on 5-6 December 2014, sharing the stage with Prof Bogduk, Dr Chris Colloca and a range of spine experts including surgeons, hospital representatives and orthopaedic experts. Multidisciplinary conferences like this one are rare on the Australian chiropractic scene. Why do you think this is?

Historically chiropractic has lived outside of mainstream health care. Our formal education to this day is not multidisciplinary, unlike the education of other professions (psychology, physiotherapy, podiatry etc). Further is the awareness that we have not produced the quality and volume of research that enables us to interact comfortably as equals within multidisciplinary conferences. Dr Colloca has been a driving force for publishing a high standard of multidisciplinary spinal research and I would encourage every chiropractor to come along and see the work that INSPIRE is doing. ■