### Dr. Chestnut's Research Review

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Groundbreaking Study by Medical Doctor Finds Chiropractic Care Significantly Better Than Care Provided by Physicians and/or Physical Therapists for Low Back Pain

Cifuentes, M., M.D., Ph.D. et al. (2011) Health Maintenance Care in Work-Related Low Back Pain and Its Association With Disability Recurrence. JOEM (53): 396-404

#### **QUOTE BOARD:**

"In our study, after controlling for demographics and severity indicators, the likelihood of recurrent disability due to LBP for recipients of services during the health maintenance care period by all other provider groups was consistently worse when compared with recipients of health maintenance care by chiropractors."

"This clear trend deserves some attention considering that chiropractors are the only group of providers who explicitly state that they have an effective treatment approach to maintain health."

#### **Conclusion:**

"In work-related nonspecific LBP [low back pain], the use of health maintenance care provided by physical therapist or physician services was associated with a higher disability recurrence than in chiropractic services or no treatment."

### **Dr. Chestnut's Scientific and Clinical Insights:**

#### Study Methodology/Description

This was a retrospective study, the authors extracted data from administrative records of a large insurance company after the patients had already been treated. "Claims filed in Illinois, Massachusetts, Maryland, New Hampshire, New York, Texas, and Wisconsin were reviewed because claimants in these states can choose the provider they prefer for a work-related injury."

Why would this not be the case in EVERY state?? Incredible. Actually, patients should be obligated to choose, and healthcare providers should be obligated to recommend, the most evidence-based, most effective, most cost-effective providers - CHIROPRACTORS! Imagine the money that would be saved and the human suffering that would be prevented.

Claimants were followed from date of injury to 12 months after first episode of disability.

The health maintenance care period was defined as the period after initial disability episode had ended and the claimant had returned to work for more than 14 days.

Recurrent disability was defined as resumption of temporary total disability compensation after an episode of health maintenance care [ie patient got better, went back to work, were still being treated with maintenance care by their provider, then had a recurrence of disability despite this health maintenance care].

The authors did a very good job at excluding patients that could have created a lack of homogeneity of patients amongst the group of providers. In other words, each provider cared for patients with similar conditions with a similar severity level. The main outcome variable was the number of days between the first day of returning to work for at least 15 consecutive days after the initial disability episode until the day before recurrence of disability. They were looking at how long a patient was able to stay at work without a recurrence and they wanted to know if maintenance care extended this period.

## Dr. Chestnut's Research Review April 2017

### **Dr. Chestnut's Scientific and Clinical Insights:**

#### **Study Results**

"During disability episode, the largest group was only or mostly visits to a physical therapist (48%), followed by only or mostly visits to a chiropractor (27%)."

As you can see, twice as many patients sought acute care from physical therapists than from chiropractors.

"During the health maintenance care period, the largest group was only or mostly visits to a physician (31%), followed by only or mostly visits to a physical therapist (24%) and only or mostly visits to a chiropractor (21%)."

This is staggering when you consider that studies, including this one, show that physician care and physical therapy (physiotherapy) care is less evidence-based, more expensive, and less effective than chiropractic.

As this study found, "In addition, people who were mostly treated by chiropractor had, on average, less expensive medical services and shorter initial periods of disability than cases treated by other providers." Further, and very significantly, fewer of the chiropractic patients used opioids and fewer had surgery compared to the physical therapy and physician patients. WOW!

Provider type during the health maintenance care period was significantly associated with recurrent disability with the only or mostly physical therapy group having the highest proportion of recurrent disability (16.9%) and the only or mostly chiropractor group having only 6.5%. Yes, you read that correctly, people who got chiropractic care had about 1/3 the injury recurrence rate of people who got physical therapy!

The provider type of both periods combined [acute and maintenance] is also significantly associated with recurrent disability, with physician loyalists having the highest proportion of recurrent disability (16.7%) and chiropractors the lowest (5.7%). Yes, you also read that correctly, patients who saw only a chiropractor had about 1/3 the injury recurrent rate of people who saw only a physician! Remember, they also got no drugs or surgery!

"Provider type during the disability episode (acute care) was associated with the hazard of disability recurrence after returning to work. Compared with only or mostly chiropractor, the groups of only or mostly physical therapy and only or mostly physician had significantly higher HRs (2.0 and 2.7 respectively). What this means is that patients treated by physical therapist during acute phase were twice as likely to have a recurrence than patients treated by chiropractors and patients treated by physicians during acute phase were almost 3 times as likely (2.7) to have an occurrence. To put this in relative terms as is common practice, patients treated by a physical therapist were 200% more likely to have a recurrence than those treated by a chiropractor and patients seen by a physician were 270% more likely to have a recurrence. Now, think of this applied to millions of patients per year and think of the difference in lost work days, healthcare costs, increased surgeries, increased opioid addiction, and decreased quality of life and it really is incredulous that we still have a system that pushes people away from chiropractors and toward physicians and physical therapy. It can't be based on evidence. It can't be based on putting the interests of patients or employers first. It can't be to save money. It can't be to reduce side effects or patient harm. What logical reasons are left? Financial gain and monopoly which is the basis of financial gain.

#### Conclusion

"After controlling for demographic and severity factors, compared with receiving treatment from only or mostly chiropractors during the health maintenance care period, receiving treatment from physical therapists, physicians, or a combination of both tended to result in significantly higher HRs or recurrent disability. Similarly, when compared to patients treated only or mostly by chiropractors during the disability episode or patients who were "chiropractic loyalists" during transition from the disability episode to the health maintenance care period, patients treated by other care providers tended to have higher hazard of recurrent disability.

## Dr. Chestnut's Research Review April 2017

#### **Clinical Importance**

"In our study, after controlling for demographics and severity indicators, the likelihood of recurrent disability due to LBP for recipients of services during the health maintenance care period by all other provider groups was consistently worse when compared with recipients of health maintenance care by chiropractors."

"Care from chiropractors during the disability episode ("curative"), during the health maintenance care period (main exposure variable, "preventive"), and a combination of both (curative and preventive) was associated with lower disability recurrence HRs."

"This clear trend deserves some attention considering that chiropractors are the only group of providers who explicitly state that they have an effective treatment approach to maintain health."

This study shows that chiropractic care was superior in the acute care phase and in the maintenance care phase. It also showed that patients who receive chiropractic care not only had less injury recurrence, but also had fewer surgeries and less use of opioids than patients who received physician or physical therapy.

#### Dr. Chestnut's MAIN CLINICAL GEM

Perhaps the main clinical gem is that maintenance care from chiropractors was shown to decrease disability recurrence. Combined with the Senna and Machaly study results, this represents a very solid case that maintenance chiropractic care recommendations are evidence-based.

#### **Dr. Chestnut's Commentary**

"If a lower rate of disability recurrence in work-related LBP cases for chiropractors holds as true, it is important to identify the mechanisms of action."

Well it does hold true. The Senna and Machaly paper which I reviewed for my Jan 2017 research review, which importantly was published after this paper was written, clearly showed that maintenance care in the form of manipulation every two weeks for 9 months after the initial care or "curative" phase of care resulted in significant improvements compared to those who did not receive maintenance care. From Senna and Machaly, "However, only the third group that was given spinal manipulations (SM) during the follow-up period showed more improvement in pain and disability scores at the 10-month evaluation." "In the non-maintained SMT group, however, the mean pain and disability scores returned back near to their pretreatment level."

The mechanism of action that distinguishes chiropractic care from physical therapy care and physician care is not hard to identify - chiropractic adjustment/manipulation which resolves scar tissue adhesions and inflammation, restores segmental motion, restores healthy afferent neurology, and restores healthy sensory-motor integration and neuromuscular function. No passive physical therapy or drug or surgery will ever be able to do this and this explains why chiropractic is superior in both the acute or "curative" phase and the maintenance phases of care. Chiropractic addresses the cause which is lack of proper segmental motion and the scar tissue, inflammation, and neurological changes that accompany segmental motion deficiency or dysfunction.

Further, as you hopefully recall from last month's research review of the Bishop et al. study, chiropractic adjustment is simply the most evidence-based and most effective intervention for LBP (and other segmental motion-related spinal and neuromuscular health issues). In the Bishop study 4 weeks of chiropractic care was 2700% better than 16 weeks of unlimited physician (drugs) and physical therapy or massage or kinesiology care.

When you add omega-3 and vitamin D, spinal hygiene/R.O.M. exercises and advice to walk and exercise, the evidence-based gap and patient outcome gap between chiropractic and all other providers widens even more.

Evidence-based care is Chiropractic's best friend, it is the patients' best friend, it is healthcare's best friend, and it is society's best friend. EMBRACE IT! PRACTICE IT!

# Dr. Chestnut's Research Review April 2017

Becoming evidence-based doesn't mean turning away from chiropractic, it means embracing it with the understanding that chiropractic represents the most evidence-based, most effective, and most cost-effective spinal healthcare option. It means being proud of chiropractic and communicating about chiropractic in an evidence-based, ethical, clinically effective way. The foundation of clinical success is clinical excellence and the foundation of clinical excellence is clinical evidence.

I so hope you will come to one of my evidence-based protocol seminars or to the evidence-based chiropractic and lifestyle certification seminars. We can monopolize evidence-based care. The only way to do this is to learn what represents evidence-based care and to implement evidence-based protocols. It isn't hard, it's easy. I've created everything you need from evidence-based spinal health assessments to reports to evidence-based patient education.