

Chiropractic Reduces Opioid Use by 55% in Low Back Pain

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A report on the scientific literature

In the United States, of the adults who were prescribed opioids, 59% reported back pain.¹ According to Statista, the percentage of adults in the United States in 2015 with low back pain was 29.1% (<https://www.statista.com/statistics/684597/adults-prone-to-selected-symptoms-us/>) and in 2017 that number was 49% for all back-pain sufferers reporting symptoms (<https://www.statista.com/statistics/188852/adults-in-the-us-with-low-back-pain-since-1997/>).

Peterson ET. AL. (2012) reported:

[The] Prevalence of low back pain is stated to be between 15% and 30%, the 1-year period prevalence between 15% and 45%, and a life-time prevalence of 50% to 80%” (pg. 525).

While acute pain is a normal (author’s note: pain is never normal) short-lived unpleasant sensation triggered in the nervous system to alert you to possible injury with a reflexive desire to avoid additional injury, chronic pain is different. Chronic pain persists and fundamentally changes the patient’s interaction with their environment. In chronic pain it is well documented that aberrant signals keep firing in the nervous system for weeks, months, even years.

(http://www.ninds.nih.gov/disorders/chronic_pain/chronic_pain.htm)

Baliki Et. AL. (2008) stated

Pain is considered chronic when it lasts longer than 6 months after the healing of the original injury. Chronic pain patients suffer from more than pain, they experience depression, anxiety, sleep disturbances and decision-making abnormalities that also significantly diminish their quality of life (pg. 1398).

Chronic pain patients also have shown to have changes in brain function in sufferers with Alzheimer' disease, depression, schizophrenia and attention deficit hyperactivity disorder giving further insight into disease states. In addition, chronic pain has a cause and effect on the morphology of the spinal cord and the brain resulting in a process termed "linear shrinkage", which has been suggested to cause ancillary negative neurological sequella.

Apkarian Et. Al. (2004) reported that "Ten percent of adults suffer from severe chronic pain. Back problems constitute 25% of all disabling occupational injuries and are the fifth most common reason for visits to the clinic; in 85% of such conditions, no definitive diagnosis can be made." (pg. 10410)

Whedon, Toler, Goel and Kazal (2018) reported the following:

One in 5 patients with noncancer pain or pain related diagnosis is prescribed opioids in office-based setting... primary care clinicians account for 50% of opioid prescriptions (Pg. 1). 1 day of opioid exposure carries a 6% chance of being on opioids 1year later, increasing to 13.5% by 8 days and 29.9% by 31 days. Among drug overdoses in the United States in 2014, 28,647, 61% involved an opioid. Opioids were involved in 75% of pharmaceutical deaths in 2010 and in 2015 over 22,000 deaths involved in prescription opioids were recorded-an increase of 19,000 deaths over the previous year (pg. 2).

Perhaps a portion of this phenomena is related to the training of medical primary care providers regarding musculoskeletal conditions. Studin and Owens reported (2016):

Day Et. Al. (2007) reported that only 26% of fourth year Harvard medical students had a cognitive mastery of physical medicine (pg. 452). Schmale (2005) reported "Incoming interns at the University of Pennsylvania took an exam of musculoskeletal aptitude and competence, which was validated by a survey of more than 100 orthopaedic program chairpersons across the country. Eighty-two percent of students tested failed to show basic competency. Perhaps the poor knowledge base resulted from inadequate and disproportionately low numbers of hours devoted to musculoskeletal medicine education during the undergraduate medical school years. Less than 1/2 of 122 US medical schools require a preclinical course in musculoskeletal medicine, less than 1/4 require a clinical course, and nearly 1/2 have no required preclinical or clinical course. In Canadian medical schools, just more than 2% of curricular time is spent on musculoskeletal medicine, despite the fact that approximately 20% of primary care practice is devoted to the care of patients with musculoskeletal problems. Various authors have described shortcomings in medical student training in fracture care, arthritis and rheumatology, and basic physical examination of the musculoskeletal system (pg. 251).

With continued evidence of lack of musculoskeletal medicine and a subsequent deficiency of training in spine care, particularly of biomechanical orientation, the question becomes which profession has the educational basis, training and clinical competence to manage these cases? Let's take a closer look at chiropractic education as a comparison. Fundamental to the training of Doctor of Chiropractic according to the American Chiropractic Association is 4,820 hours (compared to 3,398 for physical therapy and 4,670 to medicine) and receive a thorough knowledge of anatomy and physiology. As a result, all accredited Doctor of Chiropractic degree programs focus a significant amount of time in their curricula on these basic science

courses. So important to practice are these courses that the Council on Chiropractic Education, the federally recognized accrediting agency for chiropractic education requires a curriculum which enables students to be "proficient in neuromusculoskeletal evaluation, treatment and management." In addition to multiple courses in anatomy and physiology, the typical curriculum in chiropractic education includes physical diagnosis, spinal analysis, biomechanics, orthopedics and neurology. As a result, students are afforded the opportunity to practice utilizing this basic science information for many hours prior to beginning clinical services in their internship.

http://uschiropracticdirectory.com/index.php?option=com_k2&view=item&id=758:chiropractic-vs-medicine-who-is-more-cost-effective-renders-better-outcomes-for-spine&Itemid=320

Whedon, Toler, Goel and Kazal (2018) continued:

Recently published clinical guidelines from the American College of Physicians recommended nonpharmacological treatment is the first – line approach to treating back pain, with consideration of opioids only is the last treatment option or if other options present substantial harm to the patient. Recent systematic review and meta-analysis found that for treatment of acute low back pain, spinal manipulation provides a clinical benefit equivalent to that of an NSAID's, with no evidence of serious harm. Spinal manipulation is also shown to be an effective treatment option for chronic low back pain (pg. 2).

A retrospective claims study of 165,569 adults found that utilization of chiropractic services delivered by Doctor of Chiropractic was associated with reduced use of opioids. More recently, it was reported that the supply chiropractors as well as spending on spinal manipulative therapy is inversely correlated with opioid prescriptions in younger Medicare beneficiaries. This finding suggests that increased availability and utilization of services delivered by Doctor of Chiropractic could lead to reductions in opioid prescriptions. It has been reported that services delivered by Doctor of Chiropractic may improve health behaviors and reduced use of prescription drugs... Pain management services provided by Doctor of Chiropractic may allow patients use lower less frequent doses of opioids, leading to

lower costs and reduce risk of adverse effects loops getting together (pg. 2).

Although chiropractic has been clinically reporting for over 100 years positive outcomes for a vast array of conditions inclusive of low back pain the American Medical Association (AMA) has been a significant opponent historically. Although the AMA's position has been well chronicled through lawsuits such as *Wilk v. American Medical Association*, 895 F.2d 352 (7th Cir. 1990)

(<https://openjurist.org/895/f2d/352/wilk-dc-dc-dc-dc-v-american-medical-association-a-wilk-dc-w-dc-b-dc-b-dc>), in 2017 it appears they have reversed their position. In the August 2017 Journal of the American Medical Association's "Clinical Guideline Synopsis for Treatment of Low Back Pain" under the heading MAJOR RECOMMENDATIONS, spinal manipulation is recommended as a first – line therapy, with a strong recommendation. As the AMA did not list Chiropractic specifically and based upon clinical guidelines of other highly regarded medical institutions such as the Cleveland Clinic and the Mayo Clinic, physical therapy is probably high on their list as first-line of referral for spinal manipulation (This is a topic for another article and nomenclature utilized by chiropractic). When considering the treatment of mechanical spine issues comparatively between chiropractic and physical therapy the outcomes are overwhelmingly in chiropractic's favor as reported by Studin and Owens (2017)

Mafi, McCarthy and Davis (2013) reported on medical and physical therapy back pain treatment from 1999 through 2010 representing 440,000,000 visits and revealed an increase of opiates from 19% to 29% for low back pain with the continued referral to physical therapy remaining constant. In addition, the costs for managing low back pain patients (not correcting anything, just managing it) has reached \$106,000,000,000 (\$86,000,000,000 in health care costs and \$20,000,000,000 in lost productivity).

Mafi, McCarthy and Davis (2013) stated:

Moreover, spending for these conditions has increased more rapidly than overall health expenditures from 1997 to 2005...In this context, we used nationally representative data on outpatient visits to physicians to evaluate trends in use of diagnostic imaging, physical therapy, referrals to other physicians, and use of medications during the 12-year period from January 1, 1999, through December 26, 2010. We hypothesized that with the additional guidelines released during this period, use of recommended treatments would increase and use of non-recommended treatments would decrease. (p. 1574)

The above paragraph has accurately described the problem with allopathic "politics" and "care-paths." Despite self-reported overwhelming evidence of chiropractic vs. physical therapy outcomes for spine, where there were 440,000,000 visits and \$106,000,000,000 in failed expenditures, they hypothesized that increased utilization for recommended treatment would increase. The recommended treatment, as outlined in the opening two comments of this article, doesn't work and physical therapy is a constant verifying a "perpetually failed pathway" for mechanical spine pain.

http://uschiropracticdirectory.com/index.php?option=com_k2&view=item&id=822:the-mechanism-of-the-chiropractic-spinal-adjustment-manipulation-chiropractic-vs-physical-therapy-for-spine-part-5-of-a-5-part-series&Itemid=320

Whedon, Toler, Goel and Kazal (2018) reported the concluded:

In 2013, average annual charges per person for filling opioid prescriptions were 74% lower among recipients compared with non-recipients (author's note: recipients are referring to those patients receiving chiropractic care). For clinical services provided at office visits for low back pain, average annual charges per person in 2013 were 78% lower among recipients compared with non-recipients. The authors have similar between – Cohort differences in charges in 2014: annual charges per person were 70% lower with opioid prescriptions and 71% lower for clinical services among recipients compared with nonrecipients. The Adjusted likelihood find prescription for the opiate analgesic in 2014 was 55% lower among recipients compared with nonrecipients.

...the Adjusted likelihood of filling a prescription opioid analgesic was 55% lower for recipients of services provided by Doctor of Chiropractic compared with non-recipients (pg. 4)

The above reports evidenced based outcomes verifying chiropractic must be considered as the first-line of referrals, or Primary Spine Care Providers for mechanical spine diagnosis (no fracture, tumor or infection). The evidence also reveals that chiropractic outcomes exceed those of physical therapy and medicine for mechanical spine diagnosis. Unfortunately, it has taken 10,000's of opioid related deaths to bring chiropractic to the forefront and start to

eradicate the medical dogma against chiropractic and consider chiropractic as the 1st referral option for spine.

References:

1. Hudson, Teresa J., Edlund, Mark J., Steffick, Diane E., Tripathi, Shanti P., Sullivan, Mark D. (2008) Epidemiology of Regular Prescribed Opioid Use: Results from a National, Population-Based Survey *Journal of Pain and Symptom Management*, 2008, Vol.36(3), pp.280-288
2. Percentage of adults in the U.S. with low back pain from 1997 to 2015 (2018) retrieved from: <https://www.statista.com/statistics/188852/adults-in-the-us-with-low-back-pain-since-1997/>
3. Percentage of adults in the U.S. who were prone to select symptoms as of 2017 (2018), Retrieved from: <https://www.statista.com/statistics/684597/adults-prone-to-selected-symptoms-us/>
4. Whedon J., Toler A., Goehl J., Kazal L. (2018), Association Between Utilization of Chiropractic Services for Treatment of Low Back Pain and Use of Opioids, *The Journal of Alternative and Complementary Medicine*, 2018 Feb 22. doi: 10.1089/acm.2017.0131. [Epub ahead of print]
5. Treatment of Low Back Pain, Wenger H., Cifu A., (2017) Treatment of Low Back Pain, *Journal of the American Medical Association*, 318 (8) pages 743-744
6. Studin M., Owens. W., (2016), Chiropractic vs. Medicine: Who is Most Cost Effective and Renders Better Outcomes for Spine? Retrieved from: http://uschiropracticdirectory.com/index.php?option=com_k2&view=item&id=758:chiropractic-vs-medicine-who-is-more-cost-effective-renders-better-outcomes-for-spine&Itemid=320
7. Whedon J., Toler A., Goehl J., Kazal L. (2018), Association Between Utilization of Chiropractic Services for Treatment of Low Back Pain and Use of Opioids, *The Journal of Alternative and Complementary Medicine*, 2018 Feb 22. doi: 10.1089/acm.2017.0131. [Epub ahead of print]
8. Treatment of Low Back Pain, Wenger H., Cifu A., (2017) Treatment of Low Back Pain, *Journal of the American Medical Association*, 318 (8) pages 743-744
9. Studin M., Owens. W., (2016), Chiropractic vs. Medicine: Who is Most Cost Effective and Renders Better Outcomes for Spine? Retrieved from: http://uschiropracticdirectory.com/index.php?option=com_k2&view=item&id=758:chiropractic-vs-medicine-who-is-more-cost-effective-renders-better-outcomes-for-spine&Itemid=320
10. Wilk vs. American Medical Association, Retrieved from: <https://openjurist.org/895/f2d/352/wilk-dc-dc-dc-dc-v-american-medical-association-a-wilk-dc-w-dc-b-dc-b-dc>
11. Studin M., Owens. W., (2017), The Mechanism of the Chiropractic Spinal Adjustment /Manipulation: Chiropractic vs. Physical Therapy for Spine, Part 5 of a

5 Part series (2017) Retrieved from:

http://uschiropracticdirectory.com/index.php?option=com_k2&view=item&id=758:chiropractic-vs-medicine-who-is-more-cost-effective-renders-better-outcomes-for-spine&Itemid=32