

Chiropractic Management of a Patient With Chronic Pain in a Federally Qualified Health Center: A Case Report

David J. Mann, DC, and Ross Mattox, DC

ABSTRACT

Objective: The aim of this case report is to describe the response of a patient with chronic pain who received chiropractic care in a federally qualified health center.

Clinical Features: A 61-year-old female patient with neck and back pain after a traumatic motor vehicle accident 3 years prior was referred for chiropractic care. She had neck pain, low back pain, knee pain, and pain associated with over 20 surgeries, as well as depression, opioid dependence, and low quality of life.

Interventions and Outcomes: The patient was treated with chiropractic manipulation for her low back and neck pain and was counseled on nutrition and exercise. After 6 months, she reported improvements in pain, improved quality of life, and discontinuation of opioid pain medication.

Conclusion: This patient improved after a course of chiropractic care that was integrated into a federally qualified health center. (*J Chiropr Med* 2018;17:117-120)

Key Indexing Terms: *Chiropractic; Analgesics, Opioid; Medically Underserved Area*

INTRODUCTION

Chronic pain continues to be one of the primary reasons for medical consultations worldwide.¹ In 2008, the United States estimated that nearly 100 million people were affected by chronic pain with an associated economic cost ranging from \$560 billion to \$635 billion annually in medical care and decreased productivity.²

The American Academy of Pain Medicine outlines the management of nonmalignant chronic pain and recommends combination therapy, including analgesics, nonsteroidal anti-inflammatory drugs, opioids, antidepressants, and anticonvulsants.³ Prescription pain killers are an enormous cost to the United States, with an annual bill of \$17.8 billion, of which \$12.3 billion is attributed to opioids. As the public health issue of substance abuse grows, there is a strong correlation between opioid sales and opioid-related deaths. Opioid sales quadrupled from 1999 to 2015, while opioid-related deaths quadrupled during the same time period.⁴ Chiropractic care has been shown to help in

managing or alleviating chronic pain without the use of drugs or surgery as well as being cost effective, considered safe, and satisfactory to a high number of patients.⁵

Federally Qualified Health Centers (FQHCs) are federally funded community health centers that provide primary care and preventive health services in communities made up mostly of medically underserved people, such as the homeless or low-income individuals, migrant workers, or marginalized groups. These centers provide multidisciplinary and interdisciplinary healthcare. These organizations are critical for the care of urban communities where the consumers have little to no insurance or spare income, while reducing the burden on hospitals and cost of treating the underserved.⁶ There is little literature that describes the inclusion of chiropractic care within FQHC. Therefore, the purpose of this study was to present a case of chiropractic management of a patient who had previously reached a plateau in progress in regaining overall function and pain control within a FQHC.

CASE REPORT

A 61-year-old female patient presented for chiropractic evaluation with widespread pain since a motor vehicle accident (MVA) 3 years prior. Although she experienced pain in numerous regions, she was referred within an FQHC from her primary care provider for chiropractic treatment of low back pain (LBP) and low functional capacity. In the MVA, her right lower leg was partially severed but was later reattached with multiple surgeries and skin grafts. She

Department of Integrated Clinics, Logan University, St. Louis, Missouri.

Corresponding author: David J. Mann, DC, Department of Integrated Clinics, Logan University, 1851 Schoettler Road, Chesterfield, MO 63017. Tel.: +1 610 529 8437. (e-mail: david.mann@logan.edu).

Paper submitted May 28, 2017; in revised form December 1, 2017; accepted December 13, 2017.

1556-3707

© 2018 National University of Health Sciences.

<https://doi.org/10.1016/j.jcm.2017.12.002>

had multiple fractured bones, mostly in the lower extremities. She reported over 20 surgeries since the MVA. Prescription painkillers (5 mg/300 mg hydrocodone/acetaminophen initially followed by 5 mg/325 mg hydrocodone/acetaminophen) and hot packs were her main sources of pain relief. She stated that the medications made her feel groggy and often incoherent; therefore, she did not want to take them unless she was at home, which impacted her social life. Normal activities of daily living were also difficult, such as personal hygiene, getting dressed, and doing chores around the house.

Shortly before her presentation for chiropractic care, she had experience a fall secondary to low blood pressure. She had been ambulating with the assistance of a walker since recovering from the MVA due to her leg and LBP. A motivating factor for this patient to get well and start moving more was the fact that during an orthopedic consult for a knee replacement she was informed that she had to “lose weight and get healthier” before she could be a candidate for surgery. She was unable to achieve this task on her own. Her T-scores on the PROMIS Global short form during her initial chiropractic visit were 29.6 (physical) and 36.3 (mental).

A chiropractic examination was performed but was limited due to her severe limitations in mobility and fear avoidance. The examination consisted of visual inspection, visual assessment of active range of motion, testing of the deep tendon reflexes, dermatome testing, myotome testing, and palpatory findings. Aside from weakness secondary to pain and lack of sensation in the areas of skin grafts on the right lower leg, her neurologic examination was normal in the upper and lower extremities bilaterally. She had difficulty getting on and off the examination table in the prone position because of the severity of her pain levels. She also presented with a slow, shuffling gate with limited range of motion. Motion palpation revealed hypomobile segments in the lumbar, thoracic, and cervical regions.

She was given a working diagnosis of chronic pain syndrome, segmental dysfunction throughout the spine, and myalgia. A treatment plan of 2 visits per week for 4 weeks, followed by reassessment, was discussed and agreed upon. Conservative treatment was performed, consisting of the Activator technique (Activator Methods, Phoenix, Arizona) in the cervical and thoracic regions, along with Cox protocol 2 in the lumbar region, utilizing a Lloyd table (Lloyd Table Co, Lisbon, Iowa). Shortly after initiation, the treatment plan was amended to include the use of Thompson Drop and Reinert Diversified techniques, which utilized the same Lloyd table. Along with chiropractic treatment, she was educated on nutrition and therapeutic exercise. She was counseled by chiropractic student interns and chiropractic physician clinical supervisors who encouraged focusing on food intake by using a food journal, and she was given a handout regarding prudent food choices and portion control. She was encouraged to try

water aerobics classes at a local gym to increase her activity levels and to aide in weight reduction. She also was directed on how to perform a home exercise program consisting of straight leg raises and balancing on 1 foot and on how to properly stand from a seated position by utilizing her core muscles appropriately.

Within several treatments, she reported feeling better, had increased mobility, and used less painkillers for palliation. Within the first month of treatment, she had improved mobility, made dietary changes, increased her social activities, began water aerobics classes, and was able to sleep through the night without waking up due to pain for the first time in the years since the MVA. Her improvement progressed steadily during the first month of care. She was able to stop using the walker and started using a cane, eventually only carrying it “just in case.”

After a month of treatment, her relative improvement enabled her to take a vacation. She was absent from care for approximately 1 month. The month after her return, she could only attend 2 visits because of transportation issues. Following that 2-month lapse in consistent care, she visited the emergency room due to severe left-sided sciatica-like pain. She had lumbar radiography performed, which demonstrated degenerative changes of the lumbar spine. She was prescribed ibuprofen 600 mg, 1 tablet every 6 hours or as needed, and discharged from the emergency room the same day. She presented again for chiropractic care at the same FQHC a few days later. Two weeks after restarting her care plan of 2 times per week for 4 weeks, followed by reassessment, the resurgence of LBP and sciatica was reduced and under control, returning to “pre-vacation” levels. Although no viable outcome measures are available for this juncture of the care plan, the patient noted “feeling great once again.”

After 3 months of chiropractic care, her T-scores on the PROMIS Global short form improved to 39.8 (physical) and 50.8 (mental). Her progress in her overall function and weight loss has made her a viable candidate for a knee replacement, and the orthopedic surgeon has agreed to perform the operation in the near future. Another result was that she reduced her reliance on and intake of prescription opioid pain medication. She received her last prescription 6 months (September 2017) after she began chiropractic care, with no refills of pain medication due to her pain resulting from her accident after that point. She eventually had a refill of pain medication 10 months later (July 2017), but only because she underwent surgery to remove the hardware from the previously injured right leg in preparation for her knee replacement surgery. The patient provided consent to report her health information.

DISCUSSION

Chronic pain is a burden on public health in the US, affecting more Americans than diabetes, heart disease, and

cancer combined.⁷ Low back pain is the most common form of chronic pain described by patients, with a lifetime prevalence of 85%. Between 1994 and 2004, Medicare expenses for LBP in the US rose 629% for epidural injections, 423% for opioid medications, 307% for magnetic resonance imaging, and 220% for lumbar fusion surgeries, all without accompanying improved outcomes for these patients.⁸ This underscores the need for more effective pain management strategies and is accentuated by the fact that prescription opioids are some of the most commonly used methods to treat chronic pain in lieu of the growing opioid epidemic.⁹

Access to essential health care is limited in economically depressed urban areas. Federally Qualified Health Centers strive to bridge the gap of care to these areas by providing affordable, comprehensive health care.⁶ Some of the risk factors for chronic pain happen to be the same risk factors that are common among those who utilize FQHCs (low education level, low socioeconomic status, and higher rate of substance dependence or abuse). Therefore, those more likely to have chronic pain are also more likely to have their healthcare needs met at FQHCs.¹⁰ Also, those dependent on opioids frequently have multiple medical and psychiatric comorbidities.¹⁰

The recent and ongoing literature provides ample evidence that the management of chronic pain needs amending,¹¹ in part due to the amount of deaths related to prescription opioid medications.¹² Although chiropractic care does not treat chronic pain by itself, it may serve as an important addition in an integrated healthcare setting and may play an important role in reduction of opioid dependence.⁵

Chiropractic care not only has high patient satisfaction, it also provides positive objective results.¹³ Chiropractic care can have a positive influence on the patients' pain and on the duration of their pain, which helps the patients and the healthcare system save money. A study found that older patients with multiple comorbidities who used only chiropractic manipulative therapy during their chronic LBP episodes had lower overall costs of care, shorter episodes of LBP, and lower cost of care per episode day than patients in the other treatment groups, which included treatment by conventional medicine.¹⁴ Adults with LBP are more physically and mentally unhealthy than those individuals without LBP. Murphy et al state that physical activity improves general health and halts the progression of chronic pain.⁶ Because LBP contributes to chronic pain, with a lifetime prevalence of 85%¹⁵ and multiple episodes years after the initial attack,¹⁶ it would make sense to utilize a provider that specializes in treatment of LBP. Access to chiropractic care appears to offset a patient's demand for primary care physicians' services, further reducing the number of opioid prescriptions written.¹⁴ However, chiropractic care is often out of reach for many patients with chronic pain for monetary and accessibility reasons.

In this case, the FQHC in St. Louis, Missouri, was one of the first in the country to include chiropractic services into its scope of practice, thereby offering chiropractic care to individuals who previously had no access due to cost. To our knowledge, there are few studies focused on the use of chiropractic care in FQHCs and its benefits. Multidisciplinary management of chronic pain with a biopsychosocial approach is crucial for successful treatment of chronic pain.⁶ The addition of chiropractic care in FQHCs may be beneficial in such an integrated setting, as it was for the patient in this case.

Limitations

The results are representative of a single case and may not be consistent with the results of other patients. In addition, there was a lack of consistent objective assessment tools to aid in monitoring the patient's progress. However, her prescription medications could be tracked, and her improvement was based on subjective reporting and observation.

CONCLUSION

In this case study, the inclusion of chiropractic care in a FQHC was beneficial in decreasing the chronic pain and prescription pain medication usage of a patient with years of chronic pain after a car accident.

FUNDING SOURCES AND CONFLICTS OF INTEREST

No funding sources or conflicts of interest were reported for this study.

CONTRIBUTORSHIP INFORMATION

Concept development (provided idea for the research): D.J.M., R.M.

Design (planned the methods to generate the results): D.J.M., R.M.

Supervision (provided oversight, responsible for organization and implementation, writing of the manuscript): R.M.

Data collection/processing (responsible for experiments, patient management, organization, or reporting data): D.J.M., R.M.

Analysis/interpretation (responsible for statistical analysis, evaluation, and presentation of the results): D.J.M., R.M.

Literature search (performed the literature search): D.J.M., R.M.

Writing (responsible for writing a substantive part of the manuscript): D.J.M.

Critical review (revised manuscript for intellectual content, this does not relate to spelling and grammar checking): R.M.

Practical Applications

- Inclusion of chiropractic care in the treatment of chronic pain patients was beneficial at this location.
- Offering chiropractic care in this FQHC improved outcomes for these patients.
- Chiropractic care integrated in a FQHC may have the potential to relieve the number of chronic pain patients visiting primary care providers so that they may tend to other patients.

REFERENCES

1. Ussai S, Miceli L, Pisa FE, et al. Impact of potential inappropriate NSAIDs use in chronic pain. *Drug Des Devel Ther.* 2015;9:2073-2077.
2. Gaskin DJ, Richard P. The economic costs of pain in the United States. *J Pain.* 2012;13:715-724.
3. Rasu RS, Vouthy K, Crowl AN, et al. Cost of pain medication to treat adult patients with nonmalignant chronic pain in the United States. *J Manag Care Spec Pharm.* 2014;20:921-928.
4. Centers for Disease Control and Prevention. Opioid Overdose. 2016. Available at: www.cdc.gov/drugoverdose/. Accessed May 26, 2017.
5. Passmore SR, Toth A, Kanovsky J, Olin G. Initial integration of chiropractic services into a provincially funded inner city community health centre: a program description. *J Can Chiropr Assoc.* 2015;59:363-372.
6. Murphy AD, Griffith VM, Mroz TM, Jirikowic TL. Primary Care for Underserved Populations: Navigating Policy to Incorporate Occupational Therapy Into Federally Qualified Health Centers. *Am J Occup Ther.* 2017;71(2):1-5.
7. The American Academy of Pain Medicine Facts and Figures on Pain. Available at: http://www.painmed.org/patientcenter/facts_on_pain.aspx. Accessed April 30, 2017.
8. Deyo RA, Mirza SK, Turner JA, Martin BI. Overtreating chronic back pain: time to back off? *J Am Board Fam Med.* 2009;22:62-68.
9. Lipman A, Webster L. The economic impact of opioid use in the management of chronic nonmalignant pain. *J Manag Care Spec Pharm.* 2015;21:891-899.
10. Haddad MS, Zelenev A, Altice FL. Integrating buprenorphine maintenance therapy into federally qualified health centers: real-world substance abuse treatment outcomes. *Drug Alcohol Depend.* 2013;131:127-135.
11. Frenk SM, Porter KS, Paulozzi LJ. Prescription opioid analgesic use among adults: United States, 1999-2012. *NCHS Data Brief.* 2015;189:1-8.
12. Brady KT, McCauley JL, Back SE. Prescription opioid misuse, abuse, and treatment in the United States: an update. *Am J Psychiatry.* 2016;173:18-26.
13. Greenwood DM. Improvement in chronic low back pain in an aviation crash survivor with adjacent segment disease following flexion distraction therapy: a case study. *J Chiropr Med.* 2012;11:300-305.
14. Weeks WB, Leininger B, Whedon JM, et al. The association between use of chiropractic care and costs of care among older Medicare patients with chronic low back pain and multiple comorbidities. *J Manipulative Physiol Ther.* 2016;39:63-75 [e1-e2].
15. Murphy DR, Justice BD, Paskowski IC, Perle SM, Schneider MJ. The establishment of a primary spine care practitioner and its benefits to health care reform in the United States. *Chiropr Man Therap.* 2011;19:17.
16. Manchikanti L, Singh V, Falco FJ, Benyamin RM, Hirsch JA. Epidemiology of low back pain in adults. *Neuromodulation.* 2014;17:3-10.