

## **Treatment of Patients with Low Back Pain: A Comparison of Physical Therapy and Chiropractic Manipulation**

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Nima Khodakarami: From Texas A&M University; this study cites 34 references.

The purpose of this study was to investigate the cost-effectiveness of chiropractic versus PT in the US within 6 months of treatment and follow-up.

For data collection, Medline and PubMed databases were searched from 2000 to September 2018. The PubMed initially identified 10 clinical studies. The MedLine search initially identified 11 studies.

Subjects included both men and women aged to 18 to 60 years with a mean age of 40 years. All subjects had at least 3 weeks of LBP over 6 months, 55% had DC care and 45% had PT.

To assess the outcome in the short-term, this article focuses on the effects of the treatment on sick-leave days, using the duration of sick leave for the chiropractic and physiotherapy groups.

### **KEY POINTS FROM THIS ARTICLE:**

- 1) "Low back pain (LBP) is a pandemic and costly musculoskeletal condition in the United States."
  - "Patients with LBP may endure surgery, injections, and expensive visits to emergency departments."
  - Using physical therapy (PT) or chiropractic (DC) in the earlier stage of LBP may reduce the utilization of expensive health services and lower the treatment costs. **[Key Point]**
- 2) "Low back pain (LBP) is a chief cause of years lost to disability in the world."
  - "In industrialized countries, LBP causes a high cost of medical expenses and loss-of-work."
  - In the US, "over \$80 billion is directly and indirectly spent in the treatment of LBP, of which \$7.4 to \$28 billion constitute the cost of loss-of-work, and \$26 billion constitute the cost related to pharmacologic, non-pharmacologic, and therapies."
  - "LBP is the second most common reason for visits to physicians in the US."

- 3) There are costs and benefits with both PT and DC care, but “which of these treatments is optimal?”
- 4) “While LBP commonly resolves within 8 to 12 weeks, it can persist beyond 3 months in 15% of patients, where it becomes a chronic pain.”
- 5) “It is essential to identify and promote early interventions for acute LBP that are cost-effective.”
- 6) “The burden of chronic back pain may lead to a lower productivity, lower quality of life, and higher financial liability for society.”
- 7) In terms of pharmacologic therapies, the use of acetaminophen or nonsteroidal anti-inflammatory drugs is recommended.
  - However, drug “care management does not heal patients, [and therefore] non-pharmacologic therapies including PT and chiropractic therapy are recommended.” **[Key Point]**
- 8) “Chiropractic care and PT are shown to be the superior non-pharmacologic strategies for treating LBP, when compared to other non-pharmacologic treatments.”
  - “Both chiropractic therapy and PT, compared with other non-pharmacologic interventions, are shown to have better, yet similar benefits, and at lower costs.”
- 9) “The overall number of visits within 6 months for the PT group was 20% higher than for the chiropractic group.” **[Important]**
- 10) The findings showed that the total average cost in the chiropractic group was lower than the PT group, and that the *daily adjusted life years* (DALY) in the chiropractic group was higher than the PT group.
  - “Chiropractic care was shown to be a cost-effective alternative compared with PT for adults with at least three weeks of LBP over six months.”
- 11) “Given these findings, chiropractic compared with PT is the cost-effective choice.” **[Key Point]**
- 12) “A survey of physiotherapists showed that they believe their training has not instilled them with the requisite skills and confidence to successfully address and treat the multidimensional pain presentations seen in LBP.” **[Interesting]**

## COMMENTS FROM DAN MURPHY

We have reviewed several articles comparing chiropractic (manipulation) to physical therapy, including:

Article Review 45-99:

**A Symptomatic Classification of Whiplash Injury and the Implications for Treatment**

Article Review 13-02:

**Manual Therapy, Physical Therapy, or Continued Care by a General Practitioner for Patients with Neck Pain A Randomized, Controlled Trial**

Article Review 40-07:

**Chiropractic Treatment of Chronic 'Whiplash' Injuries**

Article Review 49-07:

**Low Back Pain of Mechanical Origin:  
Randomized Comparison of Chiropractic and Hospital Outpatient Treatment**

Article Review 3-16:

**Manipulative Treatment vs. Conventional Physiotherapy Treatment in Whiplash Injury**

Article Review 40-17:

**Low Back Pain and Pain Resulting from Lumbar Spine Conditions**