



Delaware
Chiropractic
Society

**Summary of Studies on
Chiropractic Efficacy,
Cost-Effectiveness &
Patient Satisfaction**

Federal Government Panel Endorses Spinal Manipulation For Acute Low Back Problems

A comprehensive federal government study performed by the Agency for Health Care Policy and Research (AHCPR) of the U.S. Department of Health and Human Services determined that spinal manipulation is a recommended and efficacious form of initial treatment for acute low back problems in adults.

In its clinical practice guideline, the 23-member panel consisting of medical doctors, nurses, doctors of chiropractic, osteopaths, physical therapists, an occupational therapist, experts in spine research, a psychologist and a consumer representative, concluded that expensive tests, prescription drugs and surgical procedures used to diagnose and treat acute low back pain are largely ineffective. Rather, experts recommend spinal manipulation, a procedure performed by doctors of chiropractic, as being an effective treatment for low back conditions.

Bigos, et. al, Acute Low Back Problems in Adults, Clinical Practice Guidelines, AHCPR, U.S. Department of Health and Human Services, Rockville, MD, December 1994.

Chiropractic Management of Low-Back Pain is More Cost-Effective Than Medical Management

This study commissioned by the Ministry of Health in Ontario, Canada concluded that chiropractic management is greatly superior to medical management in terms of scientific validity, safety, cost-effectiveness and patient satisfaction. According to the study results “there would be highly significant cost savings if more management of low back pain was transferred from physicians to chiropractors”. There is also good empirical evidence that patients are very satisfied with chiropractic management of low back pain and considerably less satisfied with physician management.

Manga, et al. The Effectiveness and Cost Effectiveness of Chiropractic Management of Low-Back Pain. Ministry of Health, Government of Ontario, September 1993.

Fewer Work Days Lost With Chiropractic Management

This workers' compensation study published in the Chiropractic Journal of Australia compared chiropractic and medical management of 1,996 cases of work-related mechanical low back pain. The number of compensation days (paid days off from work) taken by claimants was found to be significantly lower an average of 6.26 days for chiropractic patients and 25.56 days for medical patients. The average cost of compensation for chiropractic management was \$392 and for medical management, \$1,569 or four times greater than chiropractic management.

Findings included:

1. A significant reduction was seen in the number of claimants requiring compensation days when chiropractic care was chosen.
2. Fewer compensation days were taken by claimants who chose chiropractic care.
3. More patients progressed to chronic status when medical care was chosen.
4. The average payment per claim was greater with medical management.

“Mechanical Low-Back Pain: A Comparison of Medical and Chiropractic Management Within the Victorian WorkCare Scheme,” Ebrall, P. S. Chiropractic Journal of Australia, June 1992, 22:2, 47-53.

Mandated Insurance for Chiropractic is Cost-Effective

The College of William & Mary and the Medical College of Virginia found in January of 1992 that mandating chiropractic care does not increase insurance costs, and may even reduce insurance costs. Chiropractic is a growing component of the health care sector and is widely used by the population. By every test of cost and effectiveness, the general weight of evidence shows chiropractic to provide important therapeutic benefits, at economical costs. Additionally, these benefits are achieved with minimal, even negligible, impacts on the costs of health insurance.

“Mandated Health Insurance Coverage for Chiropractic Treatment: An Economic Assessment, with Implications for the Commonwealth of Virginia.” Schifrin, L.G., The College of William and Mary, Williamsburg, Virginia, and Medical College of Virginia, Richmond, Virginia, January 1992.

Chiropractic May Be First Choice For Several Low-Back Conditions

The University of Richmond conducted an economic analysis in January of 1992, which concluded that chiropractic care is a lower cost option for prominent back-related ailments. One explanation for this is the lower insurance coverage of chiropractic care. If chiropractic care is insured to the extent other specialties are stipulated, it may emerge as a first option for patients with certain medical conditions. This could result in a decrease in overall treatment costs for these conditions.

“A Comparison of the Costs of Chiropractors versus Alternative Medical Practitioners,” Dean, DH, Schmidt, R.M., University of Richmond, Richmond, Virginia, 13 January 1992.

Medical Society Recognizes Chiropractic Adjustment and Manipulation - “Accepted and Well-Established”

The North American Spine Society’s Diagnostic and Therapeutic Committee has included chiropractic adjustment and manipulation in their general guide of common clinical procedures for doctors treating patients with lumbosacral spinal disorders. The North American Spine Society (NASS) is a prestigious medical organization that publishes the monthly professional journal, Spine.

The Committee’s recommended list of procedures appears in the October 1991 issue of Spine, and categorizes chiropractic adjustment and manipulation as a “Phase I - Non-Operative Therapeutic Procedure generally accepted, well established and widely used” for lumbosacral conditions.

This medically oriented spine care organization’s formal recognition and acceptance of chiropractic procedures signals the final episode in the long history of mistrust and misunderstanding fostered by organized medicine.

“Common Diagnostic and Therapeutic Procedures of the Lumbosacral Spine,” The North American Spine Society - Ad Hoc Committee of Diagnostic and Therapeutic Procedures. Spine, October 1991; 16:10, 1161-1167.

RAND Corporation Study - Chiropractic Care Appropriate for Low Back Pain

A two-year, multi-disciplinary study has issued reports that validate the assertion that spinal manipulation is an appropriate option for low back pain. The research was conducted by RAND, in Santa Monica, California, one of America’s most prestigious centers for research. The research panel includes medical, chiropractic and osteopathic doctors who are recognized experts in back pain.

Significant conclusions reached in the first two reports issued in August 1991 are:

1. Twenty-one controlled research trials on low back pain have been identified in the medical literature that have found varying degrees of benefits from spinal manipulation.
2. An expert panel of medical, chiropractic and osteopathic experts agree that spinal manipulation is appropriate treatment for acute, uncomplicated low back pain and for acute low back pain with minor neurological findings. (A great majority of low back conditions fall into the above categories.)
3. The expert panel also concluded that in clinical practice, four weeks is a reasonable trial period for spinal manipulation. (The common prior medical position was that manipulation should be given only one to three times.)

Note: The California Chiropractic Foundation and the Consortium for Chiropractic Research supported this research project. These groups asked RAND to conduct this series of studies to insure that all health care providers and policy makers have access to independent and unimpeachable information evaluating the appropriateness of chiropractic care.

“The Appropriateness of Spinal Manipulation for Low-Back Pain, Report 1: Project Overview and Literature Review, Report 2: Indications and Ratings by a Multi-disciplinary Expert Panel,” Shekelle et al, RAND Reports R-4025/1 and R-4025/2, August 1991. Santa Monica, California.

Journal of Occupational Medicine - Compensation Costs Ten Times Lower

In direct comparison, compensation costs for chiropractic patients were ten times lower than medical costs according to this published report. This study, found in the August 1991 Journal of Occupational Medicine, assessed the total cost for back injury claims from the 1986 Workers' Compensation Fund of Utah. Researchers used standard matching diagnostic codes for patients with back injuries who were treated by either doctors of chiropractic or medical doctors. Findings include:

1. Compensation costs were ten times lower for chiropractic doctors' patients (\$68) than for medical doctors' patients (\$668).
2. Treatment costs were "significantly higher" for medical doctors (\$684) than for chiropractic doctors (\$527).
3. Medical patients received an average 54.5 days of compensation while chiropractic patients needed an average of only 34.3 days of compensation.
4. Patients under care see a DC three times more frequently (12.9 visits) than a medical doctor (4.9 visits) but at less cost overall.

"Cost Per Case Comparison of Back Injury Claims of Chiropractic Versus Medical Management for Conditions With Identical Diagnostic Codes," Jarvis et al. Journal of Occupational Medicine, August 1991; 33:8, 847-852.

British Medical Study - Chiropractic Management of Low Back Pain More Effective

A detailed two-year study by the Medical Research Council was completed by Britain's National Health Service physicians. The results were published in the June 2, 1990 British Medical Journal and were reported on the front page of the London Times. The medical authors of the study concluded that chiropractic care should be considered for inclusion in the National Health Service.

The findings include:

- Better results of chiropractic care over medical care - "Chiropractic treatment was more effective than hospital outpatient management, mainly for patients with chronic or severe back pain."
- Sizable cost reductions if chiropractic care implemented - "Our results suggest that there might be a reduction of some 290,000 days in sickness absence during two years, saving about 13 million pounds in output and 2.9 million pounds in social security payments." (U.S. \$25.5 million and U.S. \$5.7 million respectively.)

"Low Back Pain of Mechanical Origin: Randomized Comparison of Chiropractic and Hospital Outpatient Treatment," Meade et al. British Medical Journal, June 2, 1990; 300, 1431-1436.

US Medical Study - DCs Emphasize Diagnosis, Education

Another study reported in the October 1988 Western Journal of Medicine investigated the attitudes and approaches both DCs and MDs have toward back pain patients and their treatment. The researchers found that MDs are apparently less than confident in their low back training and that MDs are less confident in preventing chronic back pain. Here are their responses to the training and prevention questions:

"Feel poorly trained in low back pain "

42% of MDs agree
15% of DCs agree

"Doctors (MD or DC) can do a lot to prevent patients with acute back pain from developing chronic back pain"

57% of MDs agree
98% of DCs agree

"Managing Low Back Pain Care - A Comparison of the Beliefs and Behaviors of Family Physicians and Chiropractors," Cherkin et al. Western Journal of Medicine, October 1988; 149, 475-480.

Chiropractic Case Management is Conservative, Low-Risk Care

How can chiropractic care achieve these remarkable results? First of all, chiropractic care is conservative and is managed and performed by the chiropractic doctor without referral to a variety of specialists. The chiropractic doctor maintains a close personal relationship with the patient, which enables direct monitoring of the patient's progress. No needless treatment or therapy is administered simply because the chiropractic doctor is at all times aware of the patient's condition as it improves from day to day.

The chiropractic doctor's personal management of each case avoids the costs and delays of referrals from specialist to specialist. It is important to remember that the patient who is being referred between specialists has to wait for appointments to see those specialists and is not being treated for a condition that needs attention. Chiropractic management of the case ensures that the patient's treatment is commenced at the earliest possible stage of the injury or condition, thereby reducing disability time.

Chiropractic care avoids the use of surgery, eliminating the staggering costs of hospitalization, surgical assistants, ancillary personnel and the extended time off work for convalescence while the body heals after invasive surgery. Because chiropractic care avoids drugs, similar savings are achieved not only in avoiding the direct expense of pharmaceuticals, but also in avoiding the sometimes unpredictable side effects and complications of prescription drugs and drug interactions.

In summary, a substantial number of scientific studies from around the world support the assertion that chiropractic care is effective and can reduce the costs of care for disabling and expensive back conditions.

"Visits to Selected Health Practitioners, United States, 1980" Office of Research and Demonstrations Health Care Financing Administration US Department of Health and Human Services, Washington, DC.

US Medical Study - DCs' Patients More Satisfied and Recover Faster

A surprising report in the March 1989 issue of the prominent Western Journal of Medicine has revealed that patients of chiropractic doctors were three times as likely to be "very satisfied with their low back pain care" as were patients of medical doctors. It was also reported that medical patients take almost four times longer to get well than do patients of chiropractic doctors. Note that this medical study did not control for selection bias.

Back pain patients reporting, "very satisfied with their care":

| | |
|-------------|-----|
| MD patients | 22% |
| DC patients | 66% |

Back pain patient's average time to return to normal activity:

| | |
|-------------|-----------|
| MD patients | 39.7 days |
| DC patients | 10.8 days |

"Patient Evaluations of Low Back Pain Care from Family Physicians and Chiropractors;" Cherkin, MacComack. Western Journal of Medicine, March 1989; 150, 351-355.

California Workers' Compensation Institute Study - More Treatment At Less Cost

The 1986 Medical Fee Survey conducted by the California's Workers' Compensation Institute verified the continuation of a trend over the previous decade for chiropractic doctors to treat an increasing number of industrial injuries at less cost to insurers and employers. The 1986 survey revealed that chiropractic doctors do more for their patients, at less cost.

| | % of total procedures | % of total fees paid |
|--------------------|-----------------------|----------------------|
| DCs | 18.6 % | 10.5 % |
| MDs (Orthopedists) | 13.3 % | 24.1 % |

"1986 Medical Fee Survey," California Workers' Compensation Institute, San Francisco, California, August 1986.

Workers' Compensation Study - DCs Reduce Disability Time, Hospitalization and Costs

A study of 10,000 closed workers' compensation cases for back-related injuries reported to the state of Florida during the 1985-86 fiscal year were analyzed in a study titled: Chiropractic Versus Medical Care: A Cost Analysis of Disability and Treatment for Back-Related Workers' Compensation Cases. The following findings were reported after comparisons between medical and chiropractic provider payments:

1. Shorter duration of temporary total disability, for chiropractic patients:
 - Group excluding surgery cases - 48.7 % less disability time for DC's patients
 - Group including surgery cases - 51.3 % less time for DC's patients
2. Average cost of chiropractic services was 50% less than that of medical services (in both surgical and non-surgical groups).
3. Lower rate of hospitalization of workers' compensation cases:
 - Chiropractic cases hospitalized 20.3 %
 - Medical cases hospitalized 51.0 %

"Chiropractic Versus Medical Care: A Cost Analysis of Disability and Treatment for Back-Related Workers' Compensation Cases."
Foundation for Chiropractic Education and Research, Arlington, Virginia, Sept. 1988.

Chiropractic Treatment is Appropriate for Low-back pain

A study published in the July 1, 1998 issue of the Annals of Internal Medicine shows that chiropractic treatment is appropriate for low-back pain in a considerable number of cases. This study by the Rand Corporation found that 46 percent of a sample of low-back pain patients received appropriate care from doctors of chiropractic an appropriateness rating similar to that of common medical procedures.

* Poll results released in January 1998 by Landmark Healthcare, Inc., showed that one in every five adults ages 55 to 64 has used chiropractic care.

* A December 1997 report from the Federal Agency for Health Policy and Research (AHCPR) notes that the chiropractic profession is now the third largest group of doctoral-level providers in the United States (after medical doctors and dentists).

* That same AHCPR report shows that fully 80 percent of American workers in conventional insurance plans, preferred providers organizations (PPOs), and point-of-service plans now have coverage that pays at least part of the cost of chiropractic care. As the recent AHCPR report states, "In the areas of training, practice and research, chiropractic has emerged from the periphery of the health care system and is playing an increasingly important role in discussions of health care policy." And, notes a March 1998 article in Business and Health magazine, 'Many companies say chiropractic coverage has lowered their medical and workers' comp costs, while raising overall health and productivity. "It's one of the best benefits possible from a quality, quantity and pricing perspective,' says George McGregor, president of (a firm that is a third-party administrator)." The article also cites an Oregon study, which found that median work time lost for employees with back injuries who used chiropractic care was only 9 days as compared with 34.5 days for workers who used medical care.

Quick relief of symptoms and sustained effectiveness have long attracted consumers to chiropractic care. In fact, in just one year -- 1997 -- more than 20 million adults used chiropractic services. The 1994 AHCPR guidelines for low-back pain concluded that spinal manipulation, chiropractic's primary treatment technique, is one of only three treatments whose effectiveness is substantiated by rigorous research. According to a 1992 RAND Corp. study, patients see a chiropractor primarily for low back pain and neck pain, though many seek chiropractic care for mid-back pain, extremity problems, headaches and other symptoms as well.

Because back pain is so pervasive in our society, a recent study published in the British Medical Journal pointing out that back pain doesn't go away that easily confirmed what chiropractors have always known. Only 25 percent of low back pain sufferers had fully recovered 12 months after their first visit to a general practitioner, the study said. This low number is in conflict with the commonly held notion that low back pain episodes go away by themselves after a month. "This hardly comes as a surprise to low back pain sufferers who have been told by their medical doctors not to worry--the pain will go away on its own," said Dr. Michael Pedigo, president of the American Chiropractic Association. "In many cases, further treatment is necessary."

Doctors of chiropractic have long understood the cyclic nature of low back pain, and perhaps this is one of the reasons they consistently rate higher than MDs in patient satisfaction in this area. In a recent Gallup poll, 90 percent of all people who visited a chiropractor agreed that their care was effective.

Successful outcomes in both effectiveness and patient satisfaction, have paved the way for chiropractors to enter the mainstream of health care services. Some have even begun to collaborate with medical doctors in integrated health care practices. As reported in the May/June 1998 issue of Health magazine, the prestigious Texas Back Institute (TBI) at one time included only surgeons and other M.D.s. Then, about ten years ago, when TBI's medical doctors discovered chiropractic's success with lower back pain, they hired their first chiropractor. Now, according to one administrator quoted in the article, about 50 percent of the Institute's patients see a chiropractor first when beginning their treatment. Also, the Washington Post recently reported on the success of the 5-year-old company, American WholeHealth, whose clinics incorporate a consumer-driven mix of traditional medical and alternative health care including chiropractic.

Due to years of criticism -- and even an illegal boycott by the American Medical Association -- chiropractic training was sometimes called into question. However, the fact remains, chiropractors must complete a minimum of 6 and, on average, 7 years of college and post-graduate study to earn their degrees. Their education includes at least 4,200 hours of classroom, laboratory and clinical experience, and as much -- and sometimes more than-- course work in anatomy and physiology as most medical doctors. After they receive their degrees from one of the nation's 17 accredited chiropractic colleges, they have to pass rigorous exams and be licensed by the state before they can open a practice. The practice of chiropractic is licensed in all 50 states, and in 1994 there were approximately 50,000 chiropractors licensed in the United States. This number is expected to double by the year 2010, according to the 1997 AHCPR report.

"These recent surveys and reports finally vindicate the chiropractic profession after years of enduring doubt, questions and criticism about our training and practices," said Dr. Pedigo. "What the health care and medical communities are just beginning to accept is what our patients have known all along -- that our treatment is safe, effective and highly successful at improving their quality of life."

The American Chiropractic Association, the largest chiropractic organization in the country, provides lobbying, public relations, professional and educational opportunities for doctors of chiropractic; funds research regarding chiropractic and health issues and offers leadership for the advancement of the profession. The ACA promotes the highest standards of ethics and patient care, contributing to the health and well being of millions of chiropractic patients.

SOURCE: American Chiropractic Association, Federal Agency for Health Policy and Research

Chiropractic "Only Proven Effective Treatment" for Chronic Whiplash

A study published in the Journal of Orthopaedic Medicine not only points out the superiority of chiropractic care for chronic whiplash patients, but also examines which chronic whiplash patients responded best to chiropractic care.

In their discussion, the authors made these observations:

"Woodward found improvement in chronic symptoms in 26 of 28 patients (93%) following chiropractic treatment. Our results confirm the efficacy of chiropractic, with 69 of our 93 patients (74%) improving following treatment."

"The results from this study provide further evidence that chiropractic is an effective treatment for chronic whiplash symptoms."

Khan S., Cook J., Gargan M., Bannister G., "A Symptomatic Classification of Whiplash Injury and the Implications for Treatment", Journal of Orthopaedic Medicine 1999; 21(1); 22-25.

A Cost Comparison

Study Design: 65 years +, provided "health promotion and prevention services" for at least 5 years @ min. of 4 visits/yr. 16.95 visits to DC/yr vs. 4.76 visits/yr to MD.

Results:

- Doctors of chiropractic average only \$3,106, which is 31%, lower of the national average healthcare costs for the same age group.
- Doctors of chiropractic average are lower than the national avg. for US citizens of all ages, which was \$3,510.
- Patients receiving maintenance chiropractic spent an average of \$1,723 for hospitalizations, vs. the per capita expenditures or Medicare hospitalization was \$5,121 or 51% of the total cost of health care services.

Conclusions:

- Doctors of chiropractic visits two times vs. MDs, but resulted in a 50% Reduction in number of MD visits
- Therefore, doctors of chiropractic treatment “replaces”, not compliments, MD care.
- Extreme differences in Hospitalization costs.
- “Total annual cost of health care services for the patient receiving Medicare was conservatively 1/3 of the expense made by US citizens of the same age.”

Journal of Manipulative and Physiological Therapeutics, 23(1), January 2000, pp. 10-19

Risks of Other Common Treatments for Neck Symptoms

SUMMARY:

- A reasonable estimate of the risks of stroke following cervical manipulation is 1/2 to 2 incidents per one million treatments.
- About one-third will resolve with mild or no residuals (probably more due to reporting bias.)
- About one-fourth will prove fatal (probably less due to reporting bias.)
- Therefore, there are about 40-50 manipulation-caused strokes in the US per year, and perhaps a dozen deaths.

To place this in perspective, if we agree that the risk of dying from a stroke after a neck adjustment is 1/4,000,000, there is about a 100 times greater risk of dying from an ulcer due to taking a prescription NSAID like Motrin. If you drive about 8 miles each way to get to your chiropractic appointment, you have a statistically greater risk of being killed or seriously injured in a car accident getting to the office than of having a serious complication from your treatment.

The chiropractic profession has a well-established record of safety and efficacy and chiropractor's malpractice insurance rates remain among the lowest in the health professions. The profession is leading the way in research to learn more about complications from treatments, and working to reduce them still further. Despite occasional sensationalistic reports in the media, the facts show that chiropractic treatments rank among the safest and most effective form of health care ever offered.

Taken from an article published in the Journal of Manipulative and Physiological Therapeutics, October 1995.

Manipulation and Mobilization for MECHANICAL Neck Disorders (Cochrane Review)

People with neck pain as well as people with neck pain plus related headache that lasted one month, who received multimodal care that included exercises plus mobilization or manipulation reported greater pain reduction, improved ability to perform everyday activities and an increase in their perceived effects of treatment than those who received no treatment.

In other words, manipulation/mobilization in combination with exercise (multi-modal care) is better than doing nothing at all. This is a big change than ACOEM, which essentially suggests doing nothing at all.

Gross AR, Hoving JL, Haines TA, Goldsmith CH, Kay T, Aker P, Bronfort G, Cervical overview group, The Cochrane Library, Issue 2, 2004. Chichester, UK: John Wiley & Sons, Ltd

The Effect of Previous Low Back Surgery on General Health Status: Results From the National Spine Network Initial Visit Survey of Patients With Low Back Pain.

Spine. 29(17):1931-1937, September 1, 2004.

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Abstract

Study Design: A cross-sectional study on 18,325 patients with back pain enrolled at first visit in the National Spine Network (NSN) database from January 1998 to April 2000.

Objectives: To examine whether patients who had previous low back surgeries had poorer general health status than patients with no surgery.

Summary of Background Data: Several studies have described the role of psychological abnormalities in patients with chronic low back pain. Some of these patients have had previous spinal surgeries performed. No study has examined the effects of previous low back surgery on the general health status.

Methods: The Short Form Health Survey 36 was administered to the initial visit NSN patients. Of the 18,325 patients enrolled, 3,632 had previous low back surgeries.

Results: Patients who had previous lumbar surgeries fared significantly poorly in all 10 scores of the SF-36 health survey, even after adjustment for confounding factors. Among these patients, decompression achieved significantly higher scores for General Health, Role-Physical, and Mental Component Summary scales. Patients who had decompression as their most recent surgery had higher scores for General Health, Role-Physical, Role-Emotional, and Mental Component Summary scales, when compared to those who had other surgeries. Patients who had instrumentation as their most recent surgery had higher scores for Bodily Pain and Physical Component Summary scores. There is a positive correlation between time since last surgery and the SF-36 outcomes.

Conclusions: Previous back surgery is associated with significantly worse general health status than those without surgery. Among patients who had previous surgeries, decompression seems to exert better effects on SF-36 health status. There is a positive correlation between time since last surgery and the SF-36 outcomes, although the SF-36 scores are significantly lower than those without previous surgery.

Dose-response for Chiropractic Care of Chronic Low Back Pain.

Spine J. 2004 Sep-Oct;4(5):574-83.

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Abstract

Background Context: There have been no trials of optimal chiropractic care in terms of number of office visits for spinal manipulation and other therapeutic modalities.

Purpose: To conduct a pilot study to make preliminary identification of the effects of number of chiropractic treatment visits for manipulation with and without physical modalities (PM) on chronic low back pain and disability.

Study Design/Setting: Randomized controlled trial with a balanced 4x2 factorial design. Conducted in the faculty practice of a chiropractic college outpatient clinic.

Patient Sample: Seventy-two patients with chronic, nonspecific low back pain of mechanical origin.

Main Outcome Measures: Von Korff pain and disability (100-point) scales.

Methods: Patients were randomly allocated to visits (1, 2, 3 or 4 visits/week for 3 weeks) and to treatment regimen (spinal manipulation only or spinal manipulation with PM). All patients received high-velocity low-amplitude spinal manipulation. Half received one or two of the following PM at each visit: soft tissue therapy, hot packs, electrotherapy or ultrasound.

Results: Pain intensity: At 4 weeks, there was a substantial linear effect of visits favoring a larger number of visits: 5.7 points per 3 visits (SE=2.3, p=.014). There was no effect of treatment regimen. At 12 weeks, the data suggested the potential for a similar effect of visits on patients receiving both manipulation and PM. Functional disability: At 4 weeks, a visits effect was noted (p=.018); the slope for group means was approximately 5 points per 3 visits. There were no group differences at 12 weeks.

Conclusions: There was a positive, clinically important effect of the number of chiropractic treatments for chronic low back pain on pain intensity and disability at 4 weeks. Relief was substantial for patients receiving care 3 to 4 times per week for 3 weeks.

Clinical and Cost Outcomes of an Integrative Medicine IPA.

J Manipulative Physiol Ther. 2004 Jun;27(5):336-47

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Abstract

Objective: We hypothesized that primary care physicians (PCPs) specializing in a nonpharmaceutical/nonsurgical approach as their primary modality and utilizing a variety of complementary/alternative medicine (CAM) techniques integrated with allopathic medicine would have superior clinical and cost outcomes compared with PCPs utilizing conventional medicine alone.

Design: Incurred claims and stratified randomized patient surveys were analyzed for clinical outcomes, cost offsets, and member satisfaction compared with normative values. Comparative blinded data, using nonrandomized matched comparison groups, was analyzed for age/sex demographics and disease profiles to examine sample bias.

Setting: An integrative medicine independent provider association (IPA) contracted with a National Committee for Quality Assurance (NCQA)-accredited health maintenance organization (HMO) in metropolitan Chicago.

Subjects: All members enrolled with the integrative medicine IPA from January 1, 1999 through December 31, 2002.

Results: Analysis of clinical and cost outcomes on 21,743 member months over a 4-year period demonstrated decreases of 43.0% in hospital admissions per 1000, 58.4% hospital days per 1000, 43.2% outpatient surgeries and procedures per 1000, and 51.8% pharmaceutical cost reductions when compared with normative conventional medicine IPA performance for the same HMO product in the same geography over the same time frame.

Conclusion: In the limited population studied, PCPs utilizing an integrative medical approach emphasizing a variety of CAM therapies had substantially improved clinical outcomes and cost offsets compared with PCPs utilizing conventional medicine alone. While certainly promising, these initial results may not be consistent on a larger and more diverse population.

Comparative Analysis of Individuals With and Without Chiropractic Coverage: Patient Characteristics, Utilization, and Costs.

Arch Intern Med. 2004 Oct 11;164(18):1985-92.

Legorreta AP, Metz RD, Nelson CF, Ray S, Chernicoff HO, Dinubile NA.

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Abstract

Background: Back pain accounts for more than \$100 billion in annual US health care costs and is the second leading cause of physician visits and hospitalizations. This study ascertains the effect of systematic access to chiropractic care on the overall and neuromusculoskeletal-specific consumption of health care resources within a large managed-care system.

Methods: A 4-year retrospective claims data analysis comparing more than 700 000 health plan members with an additional chiropractic coverage benefit and 1 million members of the same health plan without the chiropractic benefit.

Results: Members with chiropractic insurance coverage, compared with those without coverage, had lower annual total health care expenditures (\$1463 vs \$1671 per member per year, $P < .001$). Having chiropractic coverage was associated with a 1.6% decrease ($P = .001$) in total annual health care costs at the health plan level. Back pain patients with chiropractic coverage, compared with those without coverage, had lower utilization (per 1000 episodes) of plain radiographs (17.5 vs 22.7, $P < .001$), low back surgery (3.3 vs 4.8, $P < .001$), hospitalizations (9.3 vs 15.6, $P < .001$), and magnetic resonance imaging (43.2 vs 68.9, $P < .001$). Patients with chiropractic coverage, compared with those without coverage, also had lower average back pain episode-related costs (\$289 vs \$399, $P < .001$).

Conclusions: Access to managed chiropractic care may reduce overall health care expenditures through several effects, including (1) positive risk selection; (2) substitution of chiropractic for traditional medical care, particularly for spine conditions; (3) more conservative, less invasive treatment profiles; and (4) lower health service costs associated with managed chiropractic care. Systematic access to managed chiropractic care not only may prove to be clinically beneficial but also may reduce overall health care costs.

Chiropractic Care: is it Substitution Care or Add-on Care in Corporate Medical Plans?

J Occup Environ Med. 2004 Aug;46(8):847-55.

Metz RD, Nelson CF, LaBrot T, Pelletier KR.

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Abstract

An analysis of claims data from a managed care health plan was performed to evaluate whether patients use chiropractic care as a substitution for medical care or in addition to medical care. Rates of neuromusculoskeletal complaints in 9e diagnostic categories were compared between groups with and without chiropractic coverage. For the 4-year study period, there were 3,129,752 insured member years in the groups with chiropractic coverage and 5,197,686 insured member years in the groups without chiropractic coverage. Expressed in terms of unique patients with neuromusculoskeletal complaints, the cohort with chiropractic coverage experienced a rate of 162.0 complaints per 1000 member years compared with 171.3 complaints in the cohort without chiropractic coverage. These results indicate that patients use chiropractic care as a direct substitution for medical care.

Efficacy of Spinal Manipulation and Mobilization for Low Back Pain and Neck Pain: A Systematic Review and Best Evidence Synthesis

The Spine Journal 4 (2004) 335–356--Review Article

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Received 26 February 2003; accepted 2 June 2003

Abstract

Background Context: Despite the many published randomized clinical trials (RCTs), a substantial number of reviews and several national clinical guidelines, much controversy still remains regarding the evidence for or against efficacy of spinal manipulation for low back pain and neck pain.

Purpose: To reassess the efficacy of spinal manipulative therapy (SMT) and mobilization (MOB) for the management of low back pain (LBP) and neck pain (NP), with special attention to applying more stringent criteria for study admissibility into evidence and for isolating the effect of SMT and/or MOB.

Study Design: RCTs including 10 or more subjects per group receiving SMT or MOB and using patient-oriented primary outcome measures (eg, patient-rated pain, disability, global improvement and recovery time).

Methods: Articles in English, Danish, Swedish, Norwegian and Dutch reporting on randomized trials were identified by a comprehensive search of computerized and bibliographic literature databases up to the end of 2002. Two reviewers independently abstracted data and assessed study quality according to eight explicit criteria. A best evidence synthesis incorporating explicit, detailed information about outcome measures and interventions was used to evaluate treatment efficacy. The strength of evidence was assessed by a classification system that incorporated study validity and statistical significance of study results. Sixty-nine RCTs met the study selection criteria and were reviewed and assigned validity scores varying from 6 to 81 on a scale of 0 to 100. Fortythree RCTs met the admissibility criteria for evidence.

Results: Acute LBP: There is moderate evidence that SMT provides more short-term pain relief than MOB and detuned diathermy, and limited evidence of faster recovery than a commonly used physical therapy treatment strategy.

Chronic LBP: There is moderate evidence that SMT has an effect similar to an efficacious prescription nonsteroidal anti-inflammatory drug, SMT/MOB is effective in the short term when compared with placebo and general practitioner care, and in the long term compared to physical therapy. There is limited to moderate evidence that SMT is better than physical therapy and home back exercise in both the short and long term. There is limited evidence that SMT is superior to sham SMT in the short term and superior to chemonucleolysis for disc herniation in the short term. However, there is also limited evidence that MOB is inferior to back exercise after disc herniation surgery. Mix of acute and chronic LBP: SMT/MOB provides either similar or better pain outcomes in the short and long term when compared with placebo and with other treatments, such as McKenzie therapy, medical care, management by physical therapists, soft tissue treatment and back school.

Acute NP: There are few studies, and the evidence is currently inconclusive. **Chronic NP:** There is moderate evidence that SMT/MOB is superior to general practitioner management for short-term pain reduction but that SMT offers at most similar pain relief to high-technology rehabilitative exercise in the short and long term.

Mix of acute and chronic NP: The overall evidence is not clear. There is moderate evidence that MOB is superior to physical therapy and family physician care, and similar to SMT in both the short and long term. There is limited evidence that SMT, in both the short and long term, is inferior to physical therapy.

Conclusions: Our data synthesis suggests that recommendations can be made with some confidence regarding the use of SMT and/or MOB as a viable option for the treatment of both low back pain and NP. There have been few high-quality trials distinguishing between acute and chronic patients, and most are limited to shorter-term follow-up. Future trials should examine well-defined subgroups of patients, further address the value of SMT and MOB for acute patients, establish optimal number of treatment visits and consider the cost-effectiveness of care.