

Chiropractic for Chronic LBP: Maintenance Care Better Than Short-Term Therapy

Editorial Staff

Third-party payers, medical-model providers and other health care stakeholders who question the value of maintenance care, particularly for low back pain, should consider findings from [a new study published in *Spine*](#), which asks (and then answers) the question, "Does Maintained Spinal Manipulation Therapy for Chronic Non-Specific Low Back Pain Result in Better Long-Term Outcome?" The study suggests patients with low back pain of at least six months duration experience greater improvement following one month (12 treatments) of spinal manipulative therapy followed by "maintenance spinal manipulation" every two weeks for nine months than subjects who receive one month of SMT only (12 treatments) or 12 treatments of sham SMT for one month. Patients in the manipulation and manipulation-plus-maintenance groups improved with respect to pain and disability after one month compared to the sham group, but after 10 months, only the group receiving maintenance care reported significant improvement, whereas the one-month-only group's pain and disability scores had returned "near to their pretreatment level."

Study Parameters

Ninety-three patients 20-60 years of age and with chronic, nonspecific LBP lasting at least six months were enrolled in the study from an initial population of 154 patients. All patients, recruited from a hospital-based outpatient rheumatology and rehabilitation clinic, underwent a standardized baseline evaluation that included detailed history-taking and examination, including inquiry as to the "mode and date of onset" of their low back pain.

At baseline and following randomization into one of the three treatment groups (one month of SMT, one month of SMT plus nine months of maintenance SMT, or sham SMT only), researchers measured pain and disability, generic health status, and back-specific patient satisfaction at baseline and at months one, four, seven and 10 in all three groups.

[Spinal manipulative therapy](#) consisted of "a high-velocity thrust to a joint beyond its restricted range of movement." Manipulation was performed with each patient in the supine position, with the side manipulated first corresponding to the more symptomatic side based on the patient's presenting complaint, if one side could be identified as more symptomatic than the other. If neither side was considered more symptomatic than the other, the clinician was free to choose which side to deliver the manipulation to first.

Patients in all three treatment groups were also instructed on a pelvic-tilt range-of-motion exercise to be performed after each manipulation: "Subjects are asked to lie on their back and bend their hips and knees so that their feet are flat on the surface. Subjects then attempt to flatten their back on the table by slightly 'drawing in' their stomach and rotating their hips backward. The motion is to be performed in a pain-free range." Subjects received instructions to perform the pelvic-tilt activity 10 times following each manipulation and 30 times (10 reps, three times a day) on the days they did not receive manipulation.

Primary Outcome Measures

Visual analogue scale (VAS) results: "The initial phase of treatment yielded a reduction of 12.35 and 13.36 mm in the second and third groups, respectively," compared to 8.03 in the sham (control) group on the pain scale. "At the 4-month and 7-month evaluation, the mean pain score gradually elevated back toward the pretreatment level in the no-maintained-SMT group. However, pain scores in the maintained SMT group [continued] improving. By the end of the study [after 10 months], pain score yielded a reduction of 19.26 in the maintained SMT group while it returned near to the pretreatment level in the group of patients who discontinued their therapy interventions."

According to the investigators, even greater differences were seen with respect to [disability \(Oswestry\) scores](#) over the duration of the study: "By the end of the first phase [one month], SMT significantly reduced the disability score in the no-maintained-SMT group and maintained SMT when compared to the control group. Analysis of the data after the 10-month period showed that while the disability score of the patients in the no-maintained-SMT group returned back nearly to their pretreatment level, the score was significantly lower in patients who received maintenance SMT ... In the maintained SMT group, the disability score [was] reduced by an average of 18.98 points lower than baseline level."

Measurements of spine flexion and lateral bending also revealed sustained improvements in subjects receiving maintenance SMT, while improvements in the no-maintenance group during the initial phase of care decreased to near the pretreatment level by the end of the second phase.

Source: Senna MK, Machaly SA. *Spine* (published ahead of print), Jan. 17, 2011. doi: 10.1097/BRS.0b013e3181f5dfe0

MAY 2011