

Low Back Pain: More Than Anatomy

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Low back pain is a socioeconomic problem of tremendous impact, producing major costs, suffering, and, in a minority of patients, chronic disability.¹ Some physicians believe that caring for low back pain is still "one of the most unrewarding problems to deal with in clinical medicine."² For many family physicians, chronic low back pain is among their most difficult challenges.³ In this issue of the *Journal*, Curtis and Bove address a particularly pressing aspect of this primary care issue: the need for family physicians to reevaluate chiropractic in light of both the increasing role it plays in the treatment of musculoskeletal ailments and the epidemic proportion of low back pain sufferers.

Most adults have experienced some degree of low back pain during their lives. At any given moment, 15% to 20% of the adult population have low back pain.^{1,4} Only a minority seek medical care, however, as the pain is rarely associated with significant impairment. The vast majority of patients seen by physicians for low back pain experience spontaneous resolution soon after their visit, and only 10% or less have residual pain 2 months after the initial episode.^{1,4,5} It is thought that patients with persistent pain and disability that lingers for 2 to 3 months (the usual definition of chronicity) have a different prognosis.⁴ The odds of returning to work at this time diminish, and if the pain persists for 24 months, they approach virtually zero.⁴ It is this chronically suffering minority that is most disabled, presents the most difficult clinical problem, and consumes huge financial resources (up to \$100 billion in the United States).¹

There is a lack of basic primary care epidemiological information about low back pain. A few details are known,

such as that chiropractors have approximately twice the number of patient visits for back pain as physicians.⁶

Some information exists about the determinants of disability in low back pain.⁵ Psychosocial factors play a major role. These include job dissatisfaction, personality traits, compensation-related issues,⁷ and a history of back injury and sciatica, as well as a personal or family history of chronic pain.

Much of the current literature on low back pain focuses on algorithms as the key to management; however, there is no scientific evidence as to their value. "Science has failed to identify those investigative strategies that may eventually lead to successful management of the phenomenon."⁵ These algorithms often recommend ruling out certain serious "nonmechanical," that is, possibly life-threatening, causes of low back pain. Once ruled out, no further established protocols for pain management or resolution exist.^{8,9} According to the current literature, the "ruling out" process is primarily based on a history and a physical examination. In practice, however, more and more physicians rely on modern imaging techniques to evaluate back pain. In addition to the tremendous costs incurred, reliance on imaging is associated with three problems: (1) radiographic findings are, at best, only moderately correlated to symptoms¹⁰; (2) only 10% to 20% of patients can be given a precise pathoanatomical diagnosis^{1,8,11}; and (3) abnormal findings may spontaneously resolve. Computed tomography scanners and magnetic resonance imagers document spontaneous resorption of disc fragments, accompanied by relief of symptoms and reversal of neurological signs.¹² This confirms the clinical observation that outcome is unpredictable and that time (not anatomy) is the key to improvement, even with clearcut causative evidence on imaging.

A great array of conventional and unconventional therapeutic modalities are available for patients who suffer from low back pain. Most remedies are without scientific validity.¹³ Even surgery, the most definitive intervention, is not without its difficulties, which mainly arise from problems with patient selection and predictability of outcome.¹⁴

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Clinical care of low back pain is currently dominated by two major schools of thought. The first, perhaps best termed the "black box" approach, states that outcomes are influenced neither through specification of the exact pathoanatomical diagnoses nor by particular treatment regimens.^{5,13,15,16} Adherents to this approach agree that the cause of most cases of low back pain cannot be found. Even in the minority of cases where a specific cause seems to be apparent, appropriate clinical management is uncertain.¹⁷ The plethora of treatment trials that have failed to show more than marginal benefit are held up as evidence of the failure of more specific protocols.

Even though it can probably be said that the black box approach is the prevailing opinion in the literature, the lack of difference in diagnostic and treatment efficacies implied in this approach may be attributed to imprecise clinical categorizations and heterogeneous samples.

The second school of thought, often associated with chiropractic and manipulation, is based on characterizing specific clinical entities. This approach is exemplified in the article by Curtis and Bove.⁶ It stresses the importance of classifying physical findings into distinctive syndromes such as "posterior facet syndrome," "sacroiliac syndrome," or "myofascial trigger points."¹⁸

These approaches are more than mere abstractions. They have an impact on clinical decision making, as they determine the direction of the workup and treatment. For instance, the subtype strategy requires precise assessments of the anatomical problem so that biomedical or mechanical interventions may be tailored to the particular condition.

Instead of a dogmatic attitude to diagnosis and treatment, a patient-centered clinical method should be adopted.¹⁹⁻²¹ As Curtis and Bove note, improved outcomes and positive placebo effects may be achieved in cases of low back pain when there is agreement between patient and provider on the nature and causes of the problem.⁶ This has proved to be true for other disease states in primary care.²¹⁻²³

In our own work on low back pain in family practice, using focus groups and long interviews, we have found that patients had well-defined vocabularies, models, and metaphors for backache, as well as typical coping styles, meanings, and attitudes. Patients do not easily accept the physician's vague low back pain classification system specifying either acute or chronic pain, with or without radiculopathy. A much richer world of pain sensation and awareness exists, ranging from "background pain" or "knowing I have a back" to severe or unbearable pain.

From this research we are currently developing a classification system that relates to the patient's own words and experiences. Such a system could allow more effective patient-physician communication and, perhaps, even improved outcomes.

Further research is required, with emphasis on func-

tional outcomes and prevention of chronicity and disability. Until the time that one school of therapeutic style is proved superior, all modalities should be considered fairly and evaluated fully, chiropractic being no exception.

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