Commentaries

Following are two commentaries on "Evidence for Use of an Extension-Mobilization Category in Acute Low Back Syndrome: A Prescriptive Validation Pilot Study."

The authors state the purpose of this study was to assess whether a priori classification followed by implementation of directed and specific conservative management results in more effective treatment of patients with low back syndrome than a nonspecific conservative treatment regimen. On the basis of their results, the authors claim their study illustrates the effectiveness of the a priori classification and subsequent treatment methods used (ie, extension and mobilization).

The authors are to be commended for undertaking a study that endeavors to show the importance of a classification-specific treatment program for low back pain as opposed to a nonspecific treatment regimen. Because relatively large group sizes are frequently considered necessary for back pain research trials in order to detect clinically important effects, the attainment of significant differences between treatment groups using very small patient samples is interesting and certainly appears to support the usefulness of this approach. There are, however, several facets of the study that deserve comment.

Delitto et al state that reported successes using the McKenzie method are descriptive and have not been subjected to rigorous peer review. However, although there is undoubtedly a need for more research into the McKenzie treatment method, and this is also true for most other back pain therapies, there is a considerable body of scientific research supporting the reliability and effectiveness of this classification and treatment system.

The authors note that the extension-oriented treatment program they used followed that described by McKenzie. It is very disturbing, however, that Delitto et al fail to acknowledge that, with the exception of the tests used for physical signs, the entire classification procedure is also drawn from the writings of McKenzie. To the uninformed, it appears that McKenzie's sole contribution to the classification process is Delitto and colleagues' use of the centralization phenomenon to determine whether movements worsen or improve patients' symptoms. In fact, the movement tests themselves, the use of repeated movements, the symptom change terminology, and the strategy of recording changes in symptom intensity and location with movements and positions are all essential components of the classification procedure advocated by McKenzie.

Despite the authors' lapse in acknowledging their sources, they correctly state that their study did not permit differentiation between the relative effectiveness of the manipulation technique and the extension-oriented exercise regimen. This is an unfortunate aspect of the study design. Given this limitation, the authors might have cited available literature concerning the efficacy of the respective therapies. In this way, readers could judge for themselves whether one or both therapies are likely to have contributed to the marked effects observed. Certainly, advocates of the McKenzie method would argue that the treatment effects observed could have been obtained from the extension-oriented regimen alone.

Confusion as to exactly which treatment components received by the experimental group were responsible for the effects observed is further compounded by the inability to separately assess the effects of extension exercises and the adoption of a lordotic sitting posture. In this regard, we have recently demonstrated that a lordotic posture, facilitated by use of a lumbar roll, significantly reduces back and leg pain and centralizes referred pain. As the extension-oriented treatment group was encouraged to sit with a lumbar roll and avoid lumbar kyphotic postures, it remains unclear to what extent the present findings may be due solely to the different sitting postures adopted by the two treatment groups.

It is notable that Delitto et al used mobilization procedures before placing patients on the extension-oriented program. This procedure contrasts with McKenzie's philosophy of teaching patients to manage and treat their own back problems, with hands-on interventions being withheld for the few who may need it. Unnecessary use of mobilization or manipulation procedures, according to McKenzie, encourages patient dependence on the therapist. In this regard, several recent studies have shown marked changes in patients' locus of pain control beliefs when treated using the McKenzie method. Patients perceive their pain to be more under their own control and less under the control of health professionals or chance factors.

Delitto et al used a 2x3 repeated-measures analysis of variance to assess differences between the treatment groups for the Oswestry data. In view of the significant differences between the treatment groups for age, and the obvious (although nonsignificant) differences in days since onset, we would have expected the authors to control for these potential biases.
by use of appropriate statistical procedures such as analysis of covariance.

These criticisms aside, the marked differences obtained in this study between the experimental and comparison groups are impressive and certainly warrant further investigation. Future studies are needed to determine the relative contributions of the extension-oriented exercises, sitting posture, and mobilizations. Persons competent in the McKenzie method would contend that the physical assessment used by Delitto et al is irrelevant in determining treatment procedures, because patients who display centralization invariably have a successful outcome with exercise alone. They would further argue that had the mobilization procedures been effective, the extension-oriented exercise program would have been superfluous.

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References


This study is a randomized, controlled clinical study, which is the best manner to evaluate clinical effectiveness. The authors point out that this is a pilot study with limitations from which further research should arise. This paper emphasizes numerous issues that the authors relate to the difficulties in conducting clinical research, including the estimate that 90% of patients treated conservatively for low back syndrome (LBS) are undiagnosed. The sensitivity and specificity of various technological advances (eg, magnetic resonance imaging) may not implicate structural abnormality that is truly related to the signs and symptoms of LBS. This leads to the bottom line for all involved within the health care professions: cost effectiveness. Should a trial of physical therapy be instituted prior to subjecting a patient to expensive diagnostic tests, which often do not dictate the most efficient treatment? Clinicians must also wonder whether the rehabilitation process is influenced and/or prolonged when a patient is informed that he or she has a "disc bulge" that may or may not contribute to the patient's clinical presentation.

Another worthwhile point mentioned by the authors is the need to define conservative care for LBS and to subject the definition to peer review. If an operational definition of conservative care were agreed upon by both researchers and clinicians, then the reproducibility of clinical trials may be more achievable. Lastly, the authors have admirably attempted to assess a classification system of patients with LBS while assessing the effectiveness of a specific versus a nonspecific conservative management regimen.

In the "Method" section, some variables pertaining to subjects were not presented, which may confound the study outcome. It is unclear as to what was meant by including patients who were referred to physical therapy "for management of LBS." Does this mean that only patients who were referred by a physician and who had back and/or lower-extremity symptoms were included in the study? Does the clinic at which the patients were treated exist within a direct-access state, and thus is medical referral not required? Were the patients treated in an outpatient private practice or in a hospital setting? It has been argued that patients seeking treatment in various clinical settings may respond differently because of the environment in which the treatment is administered and the type of medical insurance used.

A description of the area of symptoms was not clearly delineated. For example, some manual physical therapists base treatment choice and progression of treatment on the area of