


Invited Commentaries

Following are two invited commentaries on "A Treatment-Based Classification Approach to Low Back Syndrome: Identifying and Staging Patients for Conservative Treatment."

For physical therapists to continue to play a major role in the management of patients with low back pain, cost-effective analysis (reviewing total costs for a given syndrome) and the assessment of patient perception (Did the intervention succeed in improving the quality of the patient's life?) are clinical realities. In this regard, this article by Delitto and colleagues is timely for the profession, and they are to be congratulated for these initial efforts in suggesting a system to determine a "working classification" for patients with low back pain and an algorithm-based treatment approach to ensure consistent care based on predetermined rules rather than care influenced by examiner bias or emotion.

The authors present working classifications, which can ultimately allow for meaningful cost analysis. Physical therapists are keenly aware of the limitations in examining treatment costs for physical therapy management of low back pain using tools such as the International Classification of Diseases, ninth revision, coding system. Although these diagnoses have medical relevance, they provide little information regarding the movement dysfunction and disability associated with low back pain. I agree wholeheartedly with the authors' statement that the population of patients with low back pain is not homogenous and to compare "treatment approaches" within a population that is not placed in appro-
priate diagnostic categories is illogical. Whether one agrees or disagrees with the classification system they present is not as important as first recognizing that it is imperative that physical therapists begin to think in terms of a standardized “working assessment” or “working classification.”

The second major contribution is an algorithm-based treatment strategy. Predetermined rules (signs and symptoms) govern the various steps in treatment. This strategy is different than the typical manner in which treatment is determined. Treatment decisions are often based on such factors as the amount of distress that the patient can convince the clinician that he or she is in and the clinician’s own bias toward treating tissues hypothesized to be at fault. Such biases often result in “treatment approaches in search of a syndrome” (to paraphrase the wonderful way the authors referred to this same dilemma regarding diagnosis). The authors have recognized the need for a more systematic and standardized approach, which might ultimately ensure consistency in care.

The ongoing nature of this project is duly recognized, and this initial contribution invites some specific comments and also raises several questions for me. I agree with the utility of the first classification tier, as it should always be the first order of decision making. Once patients are identified for physical therapy management, they are further classified into categories indicating the acuteness of the problem. Both of these “classification levels” are in part determined by tools that are clinically sensible and easy to administer—the Oswestry questionnaire, a pain diagram, and a very specific intake questionnaire. These are not only important screening tools, but they also serve as tools that establish a baseline from which the clinician can evaluate progress. We also utilize the Oswestry questionnaire as part of the intake process because it provides us with a better understanding of the patients’ view of their problem and how the problem affects their life. Likewise, an “exit” Oswestry question-naire provides the physical therapist with information regarding the patients’ perception of improvement, referred to by the authors as “short-term outcome.”

By sharing their experience, the authors have contributed to the growing body of evidence, suggesting that it is necessary for clinicians to gather intake data that describe not only symptoms, but also patient perspective and current functional status. In reality, change in patient perception is the key outcome we need to assess. Measures such as strength, range of motion, sitting tolerance, walking distance, and so forth actually have lesser value because it cannot be inferred that such measures alter the patients’ perception of their problem and positively influence their quality of life. Delitto and colleagues are to be congratulated not only for demonstrating the usefulness and importance of such tools, but also for providing us with their interpretive comments regarding information (scores) gained via this process and strategies that might be appropriate for given scores.

The remainder of this article focused on one of the classifications, stage I, which they defined as the inability to perform basic mechanical functions such walking or standing and achieve relatively high Oswestry scores. My interpretation is that these patients have substantial pain, markedly limiting their activities. The authors suggest four examination components for this patient. Although I agree with the value of history taking and posture observation components, I question the clinical utility of assessing symmetry of isolated pelvic landmarks and pelvic movements during standing and sitting tests. The authors rightfully point out the reliability of measurements obtained with such tests, but the correlation of such findings to the painful syndrome or disability is more difficult to determine. I am especially skeptical about the value of information gained from the standing flexion test and the supine to long-sitting test. Personally, I expect the patient with this level of discomfort to move “asymmetrically.” I would suggest, for example, that the individual with low back pain completes such a sit-up test using any available movement pattern to avoid the painful stimulus and that the final position of the malleoli can be due to numerous postural adjustments. Likewise, the standing flexion test seems to disregard the substantial neuromuscular influence to the movement pattern and the ability of the patient to move the lumbar spine, pelvis, and hips in various combinations of the three cardinal planes. I fully realize the historical perspective of these tests as they relate to the biomechanics of iliosacral and sacroiliac motions, but such descriptions appear to fixate the examiner on “bony lesions” and do not account for the potential of the neuromuscular system to influence a movement pattern simply to minimize the painful stimulus.

Likewise, the interpretation of symmetry of side-bending range of motion during single movement tests begs further question. Although being a reliable test, the relationship of asymmetrical side bending to the patient’s low back syndrome is questionable, unless of course it reproduces familiar pain. My observation of physical therapy students with no history of low back pain leads me to believe that asymmetry in side bending is the rule rather than the exception. Again, the historical perspective of the “capsular pattern” is not lost on me, but I wonder whether the term is as relevant today considering that the numerous anatomical constraints and neurophysiological influences to spinal movement patterns are better appreciated.

I would offer the same question to the authors in regard to their findings of “segmental lesions.” Although the authors provide us with several guidelines regarding the pain pattern of such purported lesions, the assessment process to gain such information runs contrary to their original intent of standardizing diagnostic labels. The concept of “segmental lesions” might be instructive in the academic pursuit of analyzing mechanics, but the consistency of such a finding, and perhaps more importantly the correlation
of any such finding (unless it specifically reproduces familiar pain) with the low back syndrome, remains questionable.

My final comment is related to the authors’ brief discussion of instability. If the spine is similar to other regions of the musculoskeletal system, then age-related degenerative changes or injury affecting the various connective tissues would suggest that instability or aberrant motion might be a logical sequelae. For example, we now better appreciate how glenohumeral instability serves as a precursor to a myriad of other shoulder disorders. I am in complete agreement with the authors’ assessment that there is a growing body of evidence to support the concept of instability between spinal segments. I often wonder whether muscle guarding patterns and palpable areas of increased muscle activity in the spine are, in fact, “appropriate” muscle responses occurring as result of a reflex arc whose afferent stimulus is the aberrant segmental motion placing excessive stress on spinal tissues. This area needs much further study, and the authors have appropriately raised the question.

Delitto and colleagues have provided us with a well thought out, comprehensive clinical decision-making process for the evaluation and treatment of a specific category of patients with low back pain, and they have suggested that further treatment-based classifications approaches will be forthcoming. As they note, further scientific and clinical scrutiny will refine the examination and treatment procedures suggested in this initial article, and they are to be congratulated for organizing it in such a systematic fashion to allow for peer review. This type of contribution only comes with extensive trial and error, so their efforts must be duly recognized. Their suggestions of adequately assessing patient perception and role status, standardizing classification of the syndrome into meaningful groupings, and basing treatment on predetermined rules via an algorithm are immediately relevant and absolutely essential for the clinician to heed today. I appreciate of the opportunity to provide a commentary and raise questions on this excellent work.

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I appreciate the opportunity to comment on Delitto and colleagues’ article “A Treatment-Based Classification Approach to Low Back Syndrome: Identifying and Staging Patients for Conservative Treatment.” I commend the authors for providing an examination approach for patients with acute low back syndrome (LBS) that leads to a classification system that specifically directs conservative management of LBS. The authors’ approach has three levels of classification based on historical information, behavior of symptoms, and clinical signs. My comments are primarily directed to their first level of classification.

Delitto et al state the first level of classification determines whether the patient with LBS (1) can be managed independently and primarily by physical therapy, (2) may be managed by a physical therapist with consultation by another health care practitioner, or (3) cannot be managed by a physical therapist and must be referred to another health care practitioner. The authors recognize that in states where direct access to physical therapy services is allowed by law, physical therapists may serve as a “first-contact practitioner” in evaluating patients with neuromusculoskeletal (NMS) complaints. In this case, patients complaining of low back pain but not serious pathology (eg, metastatic cancer) must be identified and referred to an appropriate health care professional.

I support the first-level classification system for patients with LBS as described by Delitto et al. In direct access or prescriptive environments, physical therapists must have the skills, knowledge, and abilities to appropriately identify patients who exhibit low back symptoms but who actually have serious spinal or nonspinal pathology. Once these patients are identified, the physical therapist must refer these patients to the appropriate physician specialist.

Physical therapists in the uniformed services currently serve as nonphysician, primary health care providers in the evaluation and treatment of patients with NMS conditions.1-3 In this role, military physical therapists use a first-level classification system, as described by Delitto et al, to evaluate and treat their patients with LBS. After taking a detailed history and performing a thorough evaluation, military physical therapists may render treatment, refer to a physician for a condition determined to be outside the scope of physical therapy practice, or treat while in consultation with another health care practitioner. Expanded privileges, including referring patients to radiology for appropriate radiographic evaluation and to all specialty clinics, are necessary if physical therapists are to perform NMS evaluations safely and effectively.1-3

As mentioned by the authors, the weightiest concern in the direct access and the prescriptive environments is that patients with serious pathology that mimics NMS complaints might be missed. Clearly, the physical therapist’s responsibility to patients is the same in either environment. The strength of the military NMS program is the efficiency with which patients with serious pathology are identified and referred to the appropriate health care practitioner. Serious pathology is identified by obtaining a detailed history and performing a thorough physical examination that clarifies the history. Military physical therapists have identified specific signs and symptoms that are “red flags” and warrant expeditious referral to the appropriate physician specialist. The