Dear Editor,

I have read the interesting article entitled “Lumbar Segmental Hypomobility: Criterion-Related Validity of Clinical Examination Items” (Vol. 31, No.1) and would like to ask some questions and make some comments.

The authors are exploring the possibility that lumbar segmental hypomobility may be a sub-category of low back pain (LBP). One would reasonably expect that those with a painful back would score lower on lumbar spine mobility tests than those who do not. There are several reasons why this may be so: the first is that patients with LBP may be reluctant to go deep into their painful AROM, or to allow others to test their backs manually if it causes pain, in addition protective muscle spasm may accompany the pain. That the subjects did experience pain during testing is evident because the authors assessed their pain responses. The authors themselves admit to the possible pain that may cause hypomobility when they state “Limitation of sagittal rotation may be due to... inhibition of voluntary movement due to pain...”. I wonder what the currently established sub-categories of LBP are? Whatever they are, I expect that there may be hypomobility to some degree in all of them, and if so what would distinguish the possible new sub-category from the others?

Have the authors given any thought to which came first in their subjects - hypomobility or pain? McKenzie names three factors that he calls predisposing factors to back pain and one of them is loss of extension.

Finally, I would like to congratulate the authors on their ambitious project. If they demonstrate the existence on another sub-category of low back pain and validate the four tests they will have made an important contribution to the body of information in this domain.

Haddon G. B. Speakman PhD, EdD, PT.

AUTHOR’S RESPONSE.

Dr Speakman voices the thoughts of many when he states that “One would reasonably expect that those with a painful back would score lower on lumbar spine mobility tests...”. We agree that this is a reasonable expectation, and it is one that this research is designed to investigate. Since the publication of this article(Abbott & Mercer, 2003) further data have been analysed, indicating that a variety of significant abnormalities of lumbar segmental motion are apparent in a large proportion of patients with “non-specific” low back pain. It is true that simple measurement of sagittal translation or rotation range of motion are confounded by possible reluctance of patients to bend during the x-rays or examination, however as explained in the article (Abbott & Mercer, 2003) there are various other parameters of motion which are thought to better reflect the quality of segmental motion (Bogduk, Amevo, & Pearcy, 1995) and not be confounded by simply inhibited motion (Frobin, Brinckmann, Leivseth, Biggemann, & Reikeras, 1996). I chose to present simple sagittal rotation range of motion in this first, and very much preliminary, publication, because it is thought to best reflect the face-value expectation of what manual therapists are intending to measure during the physical examination (Nyberg, 1993). In addition to this simple measure, I intend to use more sophisticated analyses of segmental motion, and more complex methods of assessing the association between clinical findings and actual segmental motion, as the project progresses.

The intention of the project is to define one or more homogeneous subsets within non-specific low back pain, so that in the future we can test the hypothesis that particular therapies work better for particular types of patients. We cannot test that hypothesis until we define the “types” of patients (Borkan & Cherkin, 1996), and it would be particularly useful if we could classify them accurately from the clinical examination alone. I am looking for subsets classified on the basis of abnormal movement (and classifiable from the clinical examination), with hypomobility (as defined in the article) being just one possibility. Other researchers are looking at the problem of classification from other approaches (Delitto, Erhard, & Bowling, 1995; Laslett & van Wijmen, 1999). We certainly hope that the results will be a useful contribution to the science of physiotherapy.

We thank Dr Speakman for his continued interest in our projects.

References:


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