

Steiger et al. 2011: relationships and specificity in CLBP rehabilitation through exercise

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Dear Editor,

Stieger et al. [1] have recently published an important review article concerning the relationship between changes in musculoskeletal performance factors and changes in pain as a result of active exercise interventions with regard to which we would like to highlight some important points to take away and consider.

The authors questioned as to whether reductions in pain and disability are in anyway attributable to corresponding improvements in muscular function [1]. This study [1], however, did not consider any of the existing research using isolated lumbar extension resistance exercise (using devices such as the MedX lumbar extension or backup dynamometer [2]) as is evident from their absence in the article's reference list. It may well be that the exercise used in the studies considered was not specific enough in terms of addressing the lumbar extensors. Smith et al. [3] have shown that, without the use of appropriate restraint mechanisms for the pelvis to isolate the lumbar extensors, lumbar extension strength, pain, or disability did not show improvement as a result of training. Indeed, Nelson et al. [4] showed that greater improvements in lumbar extension strength were seen in the groups that showed greater global perceived outcomes after training. Other recent research has shown that an exercise commonly considered to be a 'lower back exercise'—the stiff legged deadlift—does not in fact provide sufficient stimulation to enhance lumbar extension strength, despite enhancing hip extensors strength [5].

A complaint by the authors within their article [1] was that many studies have not in fact used, or in some cases even reported, correlations between change in strength, pain and disability. As such we will be considering this within our own research utilising isolated lumbar extension exercise in chronic lower back pain to seek to further clarify if the results reported by Steiger et al. [1] may in fact be due to the lack of specificity in the exercises used from the studies considered. We hope in the future that other researchers will also report the relationships between changing variables of musculoskeletal performance, pain and disability as a result of their intervention research and also consider the specificity of the exercises that they are utilising when drawing conclusions.

Conflict of interest None of the authors has any potential conflict of interest.

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