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Commentaries

Classification and treatment of subacute low back pain. Putting the bio-psycho-social model together

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Invited Commentary on 'A classification and treatment protocol for low back disorders: Part 4 — Functional restoration for low back disorders with multi-factorial persistent pain', Ford et al.

The paper by Ford *et al.* published in a recent issue¹ is the fourth of a series describing a classification of low back disorders as well as treatment protocols specific to each subgroup, with the further objective of designing randomized controlled trials.

In most health systems, physiotherapists are on the frontline in the treatment of low back disorders and the background of these treatments has varied.

In the 1960s and 1970s, biomechanical explanations were prevalent. Discogenic and zygapophyseal dysfunction were described and a number of 'methods' were derived from biomechanical hypotheses which represented the main beliefs of therapists. These methods including manual therapy and specific exercises are very commonly used, despite the fact that there is little evidence of their effects.² The authors underline that this may be due to the heterogeneity of the populations, patients with different biomechanical patterns being included in the same protocols.

In the 1980s, several influences added complexity to this landscape. Mayer³ described the deconditioning syndrome and Waddell⁴ proposed that it should be incorporated in a 'bio-psycho-social' model of low back pain (LBP). The idea that LBP had to do with more than just the back and the spine became prevalent and functional restoration programs (FRPs) were developed. The engine of the bio-psycho-social model was fueled by the increasing interest in the environmental components of health, by better understanding of the multi-factorial nature of pain, and by evidence-based medicine. A body of literature is presently available showing indeed the effect of FRP in chronic LBP, most of the programs including a cognitive and behavioral component. The present situation in most countries is that of a large gap between evidence

showing the effect of FRP in subacute and chronic LBP and first line treatments which still include mainly physiotherapy based on the various biomechanical 'methods'.

The lack of transfer of the results of research to clinical practice could have two main explanations. The first is that most of the functional restoration programs are intensive programs, based within the academic facilities where they have been developed and are by no way extendable to the overall LBP population at an acceptable cost. Thus, functional restoration has maybe done more for LBP research than for LBP patients. The second limitation is that many therapists and patients remain convinced that LBP has nevertheless something to do with the back and the spine and are reluctant to give up methods aiming at modifying the biomechanical constraints, even if they do admit that other factors may play a role.

The series of papers by Ford and co-authors¹ very nicely proposes a path out of these apparent discrepancies and lays the conditions for interesting further trials.

The classification of LBP of biomechanical origin into subgroups allows specific manual therapy and exercises to address specific biomechanical hypotheses. This design should increase the power of ongoing trials. It may allow conclusions as to whether these therapies are of limited effectiveness (as presently concluded from the existing literature²), or whether the failure to demonstrate this effect is due to heterogeneous populations and to the difficulty of including clinical reasoning and tailored treatments within randomized controlled trials. For all groups, the protocols are designed in a cost-effective manner and would be possible to generalize and this is a main issue.

The hierarchical model that the authors propose, allows both clinical reasoning and clinical research and provides a simple method to adapt available treatments to the specificity of the clinical situation of each patient. Nevertheless, a hierarchical model implies that a choice is made as to which components are considered first. The authors have chosen a model in which psycho-social factors will not become predominant in the choice of the therapeutic strategy unless the biomechanical approach has failed, i.e. the patient cannot be classified in a 'bio' group. Thus, a patient with clinical signs in favor of discogenic pain will be considered in the discogenic group regardless of his rating on psycho-social factors (here on the

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Orebro scale), while a patient with signs of psychosocial distress will receive, at least for the first sessions, a different treatment depending on whether he has signs allowing classification in one of the 'bio' groups or not. The fourth group, reported here, is thus fairly different from most of the populations in which 'functional restoration' has been developed. It consists of a subgroup of patients with high psychosocial distress and clinical findings which do not make sense in a biomechanical framework. For these patients, it might be argued that, if the problem can definitely not be considered as limited to the back and the spine, it might not fit perfectly in a cognitive and behavioral model either and has to do with the broader spectrum of medically unexplained symptoms.⁵ In these situations, it has been suggested that other aspects, such as history of neglect in childhood or sexual abuse, should be addressed.

Comparing the results of subgroup 4 with those of other studies will surely be highly interesting. It might also be worthwhile to investigate within the 'bio' groups, whether the outcome depends on the initial values of the Orebro scale or not.

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