

# Manual therapy: process or product?

I read with interest Robin McKenzie's<sup>1</sup> commentary on the limitations of physical therapy research with respect to short-term effects of manual therapy. He supports Dr Cook's position that these studies investigating a given manual therapy technique are of limited use in evaluating the effectiveness of manual therapy. On that count, I wholeheartedly agree. However, Mr McKenzie later states that manual therapy consists entirely of short-term effects and that his experience with those short-lived effects led him to reject manual therapy as an intervention writ large. With all respect to his contributions to the science and physical therapist practice, I find his conclusion premature to say the least.

McKenzie's Mechanical Diagnosis and Therapy (MDT) system is a well-researched, well-described systematic examination and intervention process that, when used appropriately, leads to good clinical outcomes for large numbers of patients with common clinical problems.<sup>2</sup> Mechanical Diagnosis and Therapy is not, as is sometimes believed, the treatment of spinal disk problems with backward bending exercises. In my view, the strength of MDT is not that it provides a list of exercises for the patient to perform or for the clinician to experiment with, but that it is a systematic clinical reasoning process. This systematic process matches patient presentation with the benefits of various repeated movements or sustained positions in specific loading conditions. It also provides a method for assessing their clinical benefit and adjusts the treatment prescription in response to symptoms. It would be incorrect to design a short-term effects study of 30 prone press-up/repeated extension in lying exercises in a group of patients with low back pain as that design has no relationship to the way MDT is used in the clinic. McKenzie's actual process of clinical reasoning and continuous examination/treatment is markedly dissimilar. Press-up exercises are not the same as MDT and should not be expected to produce its effects. McKenzie's approach is a 'process' of care, not a 'product' of a few exercise movements.

The same needs to be said of a manual therapy approach.

Published trials of an impairment-based manual therapy approach where the treatment is provided by highly-trained clinicians using manual therapy in the context of a systematic, hypothesis-based clinical reasoning process have consistently shown large

effect sizes in validated outcome measures relative to other interventions.<sup>3-7</sup> Treatment periods are relatively short with rarely more than 6 visits and they include education and targeted exercise therapy for self-management. Far from short-term effects, and contrary to Mr McKenzie's assertion, these effects have been demonstrated to last from several months to a year. In addition to the clinical trials, a growing body of literature on the mechanisms of effect of manual therapy is helping us understand this approach from a basic science perspective. When we pull manual therapy 'techniques' out of the context of this clinical reasoning model, we are no longer studying the therapeutic process that happens in the clinic, but something else entirely. Such out-of-context procedure studies may be (as the RCTs noted by Milanese)<sup>8</sup> like trying to fit a round peg into a square hole. Dorko<sup>9</sup> cautioned us against focusing on a particular treatment procedure instead of the overall effect of care, and Jacobs<sup>10</sup> notes it is our interaction with the patient, not our particular chosen method, that is the most salient issue in an episode of care. Manual therapy is not, as is sometimes believed, simply the application of manipulative techniques for the treatment of painful problems. A manipulative procedure is not the same as a manual therapy approach, just as extension exercises do not represent the MDT approach. The manual therapy approach is a 'process' of care centred on a reasoning model, not a 'product' consisting of one or more manipulative techniques.

A systematic clinical reasoning model, whether using primarily patient generated movement (such as McKenzie's method) or primarily therapist generated passive movement (manual therapy), is the common thread of importance. It is this process of care we should be focusing on in our research agenda, our training programs and in our conversations with patients, colleagues, and the public. Anyone can show a patient a few press-ups or twist someone's spine. It takes a skilled and well-trained clinician to use a systematic reasoning model to arrive at the appropriate treatment decision, and that clinical process leads to the positive results seen in published randomized trials. These are results that last and produce meaningful improvement in our patients' lives — using low cost, low risk, non-invasive care. I hope Mr McKenzie reconsiders the value of a manual therapy approach and that the manual therapy

community soon returns to the primacy of rigorous clinical fellowship training and a systematic reasoning model over the simple performance of a few manipulative techniques. Only then can we appreciate that we are offering our patients a process of care structured around a reasoning model, tailored to their presentation with precise manual intervention, carefully dosed reinforcing exercises, complex clinical judgment and continuous interaction and reassessment – not just the performance of a manipulative technique.

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## References

- 1 McKenzie R. Letter to the editor. *J Man Manip Ther.* 2011;19:182.
- 2 Long A, Donelson R, Fung T. Does it matter which exercise? A randomized control trial of exercise for low back pain. *Spine (Phila PA 1976).* 2004;29:2593–602.
- 3 Deyle GD, Allison SC, Matekel RL, Ryder MG, Stang JM, Gohdes DD, *et al.* Physical therapy treatment effectiveness for osteoarthritis of the knee: a randomized comparison of supervised clinical exercise and manual therapy procedures versus a home exercise program. *Phys Ther.* 2005;85:1301–17.
- 4 Walker MJ, Boyles RE, Young BA, Strunce JB, Garber MB, Whitman JM, *et al.* The effectiveness of manual physical therapy and exercise for mechanical neck pain: a randomized clinical trial. *Spine (Phila Pa 1976).* 2008;33:2371–8.
- 5 Bang MD, Deyle GD. Comparison of supervised exercise with and without manual physical therapy for patients with shoulder impingement syndrome. *J Orthop Sports Phys Ther.* 2000;30:126–37.
- 6 Cleland JA, Abbott JH, Kidd MO, Stockwell S, Cheney S, Gerrard DF, Flynn TW. Manual physical therapy and exercise versus electrophysical agents and exercise in the management of plantar heel pain: a multicenter randomized clinical trial. *J Orthop Sports Phys Ther.* 2009;39:573–85.
- 7 Whitman JM, Flynn TW, Childs JD, Wainner RS, Gill HE, Ryder MG, *et al.* A comparison between two physical therapy treatment programs for patients with lumbar spinal stenosis: a randomized clinical trial. *Spine (Phila Pa 1976).* 2006;31:2541–9.
- 8 Milanese S. The use of RCT's in manual therapy — are we trying to fit a round peg into a square hole? *Man Ther.* 2011;16:403–5.
- 9 Dorko BD, Silvernail JL. Manual magic: the method is not the trick. *J Orthop Sports Phys Ther.* 2010;40:535–6.
- 10 Jacobs DJ, Silvernail JL. Therapist as operator or interactor? Moving beyond the technique. *J Man Manip Ther.* 2011;19:120–1.