



Jumping on bandwagons: taking the right clinical message from research

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the population if their demonstrated effects in preclinical animal studies can be translated to the clinical setting.

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Jumping on bandwagons: taking the right clinical message from research

Jill Cook

The prime goal of clinical research is to inform and direct practice, although a general practitioner friend of mine insists that “bloody academics” do nothing worthwhile for the world in general or for clinicians specifically. Despite that opinion, research has consistently improved practice across all disciplines in sports medicine.

There are, however, instances where clinical practice has steamed ahead of research knowledge. Experienced practitioners will recall the thousands of dollars spent on isokinetic machines in the 1980s and note that only slightly less is currently being spent on Pilates-based exercise machines. Both isokinetic training and Pilates exercise are excellent modes of rehabilitation, and the equipment can provide very positive gains. However, claims for the effectiveness of these modalities have been touted well beyond what the research has shown.

There has been excellent and ongoing research into the rehabilitation of low back pain which has focused on muscle strengthening and conditioning; hence the current clinical use of Pilates-based rehabilitation. The role of transversus abdominis as a key stabiliser of the lumbar spine has been extensively reported and clinicians have taken this to heart. As a result, transversus abdominis conditioning, Pilates and “core stability” are basic tenets for the rehabilitation of low back pain, as

well as for various upper and lower limb injuries. This can have clinical benefit, but recent research reported in this issue by Allison *et al* suggests that transversus abdominis may work unilaterally in response to spinal rotations rather than as a premovement bilateral stabiliser.

Does this mean that the hours spent teaching and practising isolated, bilateral activation of transversus abdominis may not have been the most effective use of time? Maybe it does, but transversus abdominis exercise now has a life of its own; it has gone beyond sports medicine and physiotherapy into fitness and gym-based programmes. If research confirms that transversus abdominis exercise does not contribute to spinal health as a bilateral stabiliser, it will nevertheless take years to undo what has already been taught in the community. Although there appear to be no harmful consequences from time spent on transversus abdominis exercise, exercise time is precious for most people, so using it on effective exercises is clearly ideal.

Clinically, the translation from basic transversus abdominis research to improved outcomes for injured individuals has, to date, been less than inspiring. Few studies have shown that abdominal muscle strengthening or activation contributed to reducing low back pain, or that lack of core stability was causally associated with injury, or even that isolated muscle strengthening translated into muscle use in everyday activity.

So where to from here for clinicians? Do we abandon the last 10 years of teaching

transversus abdominis exercises in clinical practice, and, if so, what do we put in its place? Exercise has a central place in rehabilitation, and loading the musculoskeletal system results in gains through tissue strengthening. Virtually any exercise has benefits, and, although the precise role of transversus abdominis is not yet clearly understood, there is certainly no evidence that the transversus abdominis exercises as taught are not beneficial in some way. If they are not beneficial locally, they may produce benefits more globally through associated abdominal muscle activity.

Bandwagons have a purpose, otherwise people would not embark. One benefit is that they allow for the rapid dissemination of certain clinical protocols and they allow clinicians to feel that they are giving the best “evidence-based” treatments. Perhaps, as Allison says, we should qualify statements of efficacy more and perhaps be less absolute in how we explain treatment to clients.¹ That way, we can continue to incorporate new research findings in clinical practice without being inaccurate about research findings.

For transversus abdominis exercises, this would mean stating that transversus abdominis has a role in the treatment of low back pain but that it is not solely responsible for “core stability”. We should probably avoid suggesting that “core stability” exercises provide the absolutely specific treatment that will resolve back pain and improve function. Although research has a key role in guiding clinical practice, clinicians also play a key role in translating that research. There is responsibility on both sides of the equation.

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