



The Art and Science of Evidence-based Practice

By Dr Edwin Lim, Senior Physiotherapist, Singapore General Hospital

Evidence-based practice has indeed come a long way at the Department of Physiotherapy of Singapore General Hospital (SGH). Since 2007, the Department has been involved in evaluating physiotherapy treatment through the use of systematic review with or without pooling of trials' results. At least within the musculoskeletal specialty of physiotherapy, the evaluation of treatment approaches, such as balance training, Pilates-based exercises, and Kinesio taping, have been presented in either SGH Annual Scientific Meeting or the SingHealth Duke NUS Scientific Congress. These are just some of the many treatment approaches which are commonly used by clinicians, but we continue to remain clueless about the magnitude of treatment effect size when compared to minimal intervention.



Upon completion of every review, it is indeed encouraging to know that these treatments do work (in terms of pain and/or disability reduction) when compared to minimal intervention. For example, I have shared on **the effectiveness of neural tissue management on pain and disability reduction in chronic musculoskeletal pain conditions, when compared to minimal intervention** (Su and Lim

2016) during the recent SingHealth Duke NUS Scientific Congress (Evidence based medicine – Allied Health category). In addition, findings from this review also revealed the moderate to large effect size of this treatment approach. These findings have clinical implications. Firstly, it is heartening to know that physiotherapy treatment approaches, which have been reviewed so far, have the phenomenal capacity to be efficacious when used appropriately by qualified practitioners. More importantly, the awareness of such physiotherapy treatment efficacy may allow general practitioners to consider referring more patients for physiotherapy in the community setting on a timely basis since musculoskeletal pain conditions are commonly presented to the primary care physicians.

We know that the embedding of evidence-based practice in our day-to-day patient care and service delivery will help to better inform patients about the relevant clinical benefits, as well as ensure that clinical decisions made for patient care take into account “the best available evidence”. However, we have to acknowledge the challenges behind sustainable evidence-based practice, with the lack of time or skills as one of the most commonly cited reasons. Interestingly, a recent published review reported that a positive attitude towards evidence-based practice does not equate to consistent evidence-based practice (Scurlock-Evans et al 2014). Moving ahead, further research on possible strategies to encourage consistent evidence-based practice is warranted, at least for now.

Apart from the afore-mentioned science of evidence-based practice, we need to bear in mind that our clinical reasoning and expertise as healthcare professionals, and the thoughtful dialogues with our patients (of which I would refer to both of them as the art of evidence-based practice) are just as important. In principle, we should strive towards mastery over both the art and science of evidence-based practice, as this aligns well with SGH’s commitment towards serving our nation at the heart of all we do.

About the Author



Dr Edwin Lim graduated from the University of Queensland in 2013, and his postgraduate work investigated the underlying pain mechanism in persons with chronic tennis elbow. He currently works in the Department of Physiotherapy (Research team) at the Singapore General Hospital. His current research focus is pain mechanism in chronic knee osteoarthritis. In addition, he holds a joint appointment with the Health and Social Sciences faculty in Singapore Institute of Technology.

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References

Su Y, Lim ECW (2016), Does evidence support the use of neural tissue management to reduce pain and disability in nerve-related chronic musculoskeletal pain? A systematic review with meta-analysis. *Clin J Pain*, 32(11):991-1004.

Scurlock-Evans L, Upton P, Upton D (2014), Evidence-based practice in physiotherapy: a systematic review of barriers, enablers and interventions. *Physiotherapy*, 100(3): 208-219.