

## Manual therapists – Have you lost that loving feeling?!

Things used to be so simple when we began our careers in physical therapy many years ago... A patient would typically present to our clinics with musculoskeletal pain, we would identify treatable impairments in body structure and function, and we would use manual therapy and exercise to improve their function and quality of life. We truly believed it worked pretty well for most of our patients. Of course this was in the time before we started utilizing valid, reliable, patient-reported outcome measures (PROMs) in our practice. Once we did, many patients we thought were getting better (because they told us so!) did not exhibit clinically important changes on PROMs [1]. We want to please our patients, but they also want to please us [2]!

Manual therapy is in an identity crisis. Due to reported marginal effect sizes in systematic reviews for manual therapy as a stand-alone intervention for musculoskeletal disorders [3–8], some physical therapists have suggested abandoning manual therapy as an intervention. Blog posts such as ‘Why I am not a manual therapist’ [9] and ‘Manual Therapy Sucks’ [10] abound on the Internet. Why this vehement opposition to manual therapy interventions? A recent editorial by Reid et al. [11] suggested ‘...we, as advocates of a specific treatment specialization, have not done an adequate job in providing sufficient and sound evidence that orthopedic manual physical therapy demonstrates high clinical utility...In other words, we have failed to tell our story: Traditional paradigms of how manual therapy works have been questioned [12–14]. At the time, clinical benefits observed from manual therapy were believed to be from local changes in tissue, joint mobility, and alignment [15]. New evidence suggests that many manual therapy theories and paradigms are outdated and invalid, and yet we still cling to them at our own peril [12,13,16,17].

Current best evidence suggests that any benefit seen from manual therapy likely arises from a complex interplay between neurophysiological effects, placebo, patient expectation, and therapeutic alliance [12,13]. In clinical research, it is very difficult to control for all possible confounding variables, and, once you strip away these ‘non-specific’ factors [12,13,16,18–21], manual therapy as a stand-alone treatment is of questionable efficacy. Systematic reviews suggest that manual therapy for musculoskeletal conditions may have significant short-term effects on pain, but the long-term effects on disability, function, health care costs, and quality of life remain questionable [4–6,8,22].

People have always had pain. This has been a constant. Societal shifts, led by the medico-industrial complex, have changed perceptions and beliefs about pain [23]. Our routine assessment of pain as the ‘5th Vital Sign’ coincides

almost exactly with the emergence of abuse and dependence on prescription opioids [24]. Chronic pain prevalence has more than doubled in the last 15 years, and it is now estimated that over 100 million Americans suffer from persistent pain, costing society over \$600 billion a year [25]. Chronic musculoskeletal pain is multidimensional, and management requires a broad understanding of anatomy, physiology, biomechanics, psychology, and pain processing [14,26].

If manual therapy is to remain as a viable treatment intervention, practitioners need to stay current with new and evolving management paradigms. It has been well documented that there is a lag of about 17 years for new medical discoveries to be implemented into clinical practice [27]. We cannot wait that long and our patients deserve better from their health care providers. The successful use of manual therapy depends on a comprehensive understanding of the complex interplay between multiple inputs, including the patient, the provider, and the environment. Relying simply on biomechanical mechanisms is a recipe for failure.

Is it time to throw the baby out with the bathwater, or is manual therapy still a viable treatment option for physical therapists treating individuals in pain? We feel strongly that manual therapy is a useful intervention to facilitate pain-free functional movement [28,29]. But it is just one treatment option for us to consider, in what should be an ever-evolving skillset. Many tools are required to successfully improve a patient’s functional house. The optimal treatment strategy for each patient requires an up-to-date knowledge of the evidence, combined with a strong patient-centered alliance with the individuals we are fortunate enough to care for. We need to embrace contemporary pain science as well as neurophysiological, psychological, and non-specific patient factors as potential manual therapy treatment modifiers to maximize our patients’ outcomes [19]. Saddle up, the future is now.

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