VIEWPOINT

ALAN J. TAYLOR, PT. MSc1 • ROGER KERRY, PT. PhD1

When Chronic Pain Is Not "Chronic Pain": Lessons From 3 Decades of Pain

J Orthop Sports Phys Ther 2017;47(8):515-517. doi:10.2519/jospt.2017.0606

hen the game of football (or soccer in the United States) is introduced to young children, they commonly play what is known as a "kick-and-rush" game,⁸ that is, where one individual kicks the ball and then everyone (including the kicker) runs after it. The goalkeepers, meanwhile, stand at either end, watching the big picture unfold. We present an argument that

the physical therapy profession, despite its move toward evidence-based medicine, continues to play a "kick-and-rush" game with regard to musculoskeletal assessment and management. We suggest that while the old guard of physical therapy gurus-Cyriax, Maitland, McKenzie, for example—have become passé, those gurus have simply been replaced by a new breed—just as colorful, convincing, and vocal as the old guard. This Viewpoint poses the question, why, when we (as a profession) appear (according to the new gurus) to have been so wrong before, do we appear to believe that we are right this time?

The current move in physical therapy toward the biopsychosocial management of chronic pain^{5,6,12} has led to some interpreters to call for a less hands-on approach, as awareness of central sensitization leads to specific management

trends and a move away from pathoanatomical considerations. We suggest that no approach, no matter how vocal and evangelistic its followers, would likely be any more certain than what preceded it. To illustrate our point, and like previous *JOSPT* Viewpoint authors,^{4,7} we use a case study to explore this phenomenon. This single case study is unique in that it reflects 3 decades of physical therapy fashions.

We present a 53-year-old patient who personally witnessed a range of trends in musculoskeletal physical therapy over 35 years of serial misdiagnosis and mismanagement. The case is part of a wider case series that illustrates how careful clinical examination, clinical reasoning, and appropriate physical testing remain essential for all patients, including those who have been classified under the epithet "chronic (or persistent) pain."

Geoff presented with a 35-year history of exercise-induced (cycling) leg pain and low back pain (LBP). He was able to detail a long, convoluted history, which began when he was 18 years of age and, as a keen racing cyclist, was diagnosed with "sciatica." What followed was a series of physical therapy interventions, which covered the whole range of musculoskeletal physical therapy fashions from the 1970s to the present day. He was able to detail how his spine had been manipulated and treated for supposed malalignments, leg-length discrepancies, "stiff joints," and "mobile joints," to little or no effect. He reported how he "shopped" for physical therapy and was heartened when he was given specific exercises (McKenzie extension exercise) for a "disc bulge," which changed his pain. Unfortunately, the change was that he had developed a new LBP, while his nonspecific (nondermatomal) leg pain remained the same.

Now with leg pain and LBP, he was referred for physical therapy rehabilitation and underwent a series of "stability exercises" for his "unstable spine," to no effect. Twenty years following the onset of his symptoms, Geoff was by now categorized under the "chronic pain" label. He went

*Division of Physiotherapy and Rehabilitation Sciences, University of Nottingham, Nottingham, UK. The authors certify that they have no affiliations with or financial involvement in any organization or entity with a direct financial interest in the subject matter or materials discussed in the article. Address correspondence to Mr Alan J. Taylor, Division of Physiotherapy and Rehabilitation Sciences, University of Nottingham, Hucknall Road, Nottingham, NG5 1PB UK. E-mail: alan.taylor@nottingham.ac.uk @ Copyright ©2017 Journal of Orthopaedic & Sports Physical Therapy®

{ VIEWPOINT }

through a process of pain management, counseling, cognitive behavioral therapy, and various combinations of other pain therapies and education. None of the described interventions or management strategies proved to be successful. Later, he underwent a program of classification-based cognitive functional therapy—once again, to no effect.

Magnetic resonance imaging scans (at 50 years of age) had confirmed minor disc protrusions at L4-L5-S1, with "mild impingement" on the neural tissue. There were no neurological deficits on physical examination. Geoff subsequently underwent a series of spinal injections, which again made no difference to his condition. In summary, he considered his overall condition to be unimproved, if not worsening—"I've tried it all; nothing works ... and I reckon it's getting steadily worse," he claimed.

Thirty-five years after his initial presentation and after a host of physical therapy interventions (physical, psychological, and combined) by well-intentioned and convincing practitioners, Geoff underwent a lower-limb vascular assessment in a physical therapy clinic, as his aggravating factor, exercise, had not been previously explored. At rest, this was entirely normal. Postexercise, however, his ankle-tobrachial pressure index (ABPI) on the left was calculated at 0.35 and on the right at 0.79 (recorded at 1 minute postexercise). The ABPI cutoff point for lower-limb flow limitation postexercise is currently set at 0.66.9 An ABPI of 0.35 on the left lower limb was indicative of a vascular flow problem. Geoff's history and subsequent vascular assessment were suggestive of an advanced and progressive stenotic lesion somewhere along the left aortofemoropopliteal axis.9

Geoff underwent further vascular tests, including exercise/stress tests, which proved confirmatory. A magnetic resonance arteriogram demonstrated an extensive stenosis of his common/external iliac artery. He underwent a 5-hour operation involving endarterectomy and vein grafting. The surgeons found more

extensive pathology (endofibrotic stenosis) than the magnetic resonance arteriogram scans had suggested. He made a full recovery following surgery and was able to return to cycling, running, and skiing with no leg pain (he still reported occasional LBP, which he self-managed). His postexercise ABPI readings returned to normal levels on the affected left side. It transpired that Geoff had never been a candidate for *any* of the offered physical therapy interventions.

Geoff's story is significant for a host of reasons. What was clear throughout was the faith that the practitioners had in their interventions, which were all in vogue at the time. Those who had, in the early stages, diagnosed "sciatica" had been able to offer manual therapies, designed to ameliorate real or imagined biomechanical and joint dysfunctions. Those who offered Mechanical Diagnosis and Therapy were initially convinced of the efficacy of their disc theory when the pain "centralized" by appearing at the lower back. Unfortunately, this was not accompanied by alteration of the presenting leg pain. Geoff's subsequent move to a therapist who would help him with his "core stability" and who, again, was well intentioned but unsuccessful. Similarly, the "pain education" interventions and the classification-based cognitive functional therapy were undoubtedly supported by real or imagined findings related to his pain and everything that had gone before. These interventions would all have been supported by physical therapists' interpretation of the contemporary evidence.

His own reflection was that every single practitioner he had seen appeared to have an inherent self-belief and convincing explanation (and solution) for his pain experience. Interestingly, the patient's belief that something "was actually wrong" had remained with him throughout the journey. This, of course, had been explained away to him (more recently) by current research and evidence-based thinking on central sensitization and pain. It is perhaps sobering to consider

that 40% of what was thought (in medicine) to be right over a 13-year period is now unsupported by the evidence.³

This single, isolated, albeit rare case raises a number of questions that our physical therapy profession should consider carefully:

- 1. Given that central sensitization is postulated to occur in persistent pain experiences, how did Geoff make a complete recovery following arterial surgery, after 35 years of pain?
- 2. How did this patient appear to fit every single theory and paradigm, detailed within the case history, from both an assessment and treatment perspective?
- 3. Given the profession's current trend to move away from a consideration of biomedical pathologies as pain sources, what is the current role or status of physical examination and clinical reasoning? In other words, does diagnosis matter?
- 4. Given the physical therapy profession's high profile as ambassadors for exercise, and the patient's early description (from the outset) of exercise-induced pain, why had Geoff never been examined under exercise conditions?
- 5. Given that the physical therapy profession has clearly been wrong so many times before, why do the current crop of opinion makers appear to suggest that *this time* we have it right?

This case study has not been chosen for any other reason than for us to reflect on the profession and the trends that physical therapists have all seen and followed over the years. It does not suggest that we should all be so skeptical that we deny that any new theory or research has value. Nor does it claim that every patient who does not respond to our therapies will have a vascular origin to their pain presentation. However, what is clear is that we all have to pin our flag to the mast somewhere, and perhaps that is why busy clinicians are quick to latch onto fashions. It is certainly worth wondering what those researchers and

opinion makers, who have been at the helm of a series of physical therapy fashions over the years, will be confidently championing in another decade.

It may be wise, given our history of (apparently) getting things so inadvertently wrong, to step back for a moment and analyze what we can learn.

What We Know

- Any school of thought or management approach can never be 100% right for every patient.
- As physical therapy roles are increasingly "extended," first-line practitioners will be exposed to more complex cases in both acute and chronic settings.
- 3. Chronic or persistent pain may well be indicative of central sensitization, but this is not a foregone conclusion. There are subgroups of patients with chronic pain who display little or no central sensitization,² and there are countless cases of delayed diagnosis and/or misdiagnosis.¹⁰
- 4. The evidence base changes daily, and history suggests that many of the things we are sure about today will be questioned in the future.³

With those things in mind, the authors suggest that to abandon appropriate physical examination and clinical reasoning, or to fail to consider systems and pathology, in favor of fashionable trends is a folly that could well end up in the court room or worse.1 The biopsychosocial model has provided us with an insight into the complexities of understanding people with persistent pain. However, for Geoff, its widespread acceptance turned out to be his misfortune. The very fact that his painful experience had lasted so long gave therapists the easy task of explaining his pain away. As it transpired, that explanation was wrong. The biopsychosocial model-taken at its most literal-would have difficulty in accounting for Geoff as a human, from the perspective of his (up to that point) medically unexplained physical symptoms. What was required was a truly holistic reasoning process that incorporated as much of the human condition as possible, and not an approach that, eventually, reduced Geoff to his nonbiological component parts.

It is our contention that we should embrace the ever-changing landscape, yet learn to navigate it more cautiously. We should abandon our inherent, historical herd tendencies and step back to occupy the middle ground. We should use the best of the research to guide us, yet at the same time be able to recognize bias, conflicts of interest, and fashionable trends when we see them. It is of course quite feasible that on any given day, a therapist may see patients who benefit from a variety of approaches to their condition. That raises the question of whether researchers or clinicians should be so blinkered by a single approach or school of thought that they deny, or cannot see, the value of another.

Geoff's experience of our profession ought to have taught us a lot, not least that we can, perhaps unwittingly, make any clinical picture fit our own paradigm. This suggests that we should never be entirely convinced of our favored assessment or management technique, and that we should never stop considering why a patient is either not making progress or perhaps getting worse. The role of the clinical-reasoning detective has not yet passed us by. By all means, kick, but do not rush. History dictates that that approach may be folly.

Output

Description:

REFERENCES

 Chartered Society of Physiotherapy. Learning from litigation - Cauda Equina Syndrome (CES).
 Available at: http://www.csp.org.uk/publications/

- learning-litigation-cauda-equina-syndrome-ces. Accessed March 29, 2017.
- Frey-Law LA, Bohr NL, Sluka KA, et al. Pain sensitivity profiles in patients with advanced knee osteoarthritis. *Pain*. 2016;157:1988-1999. https://doi.org/10.1097/j.pain.000000000000000000
- Huded C, Rosno J, Prasad V. When research evidence is misleading. AMA J Ethics. 2013;15:29-33.
- **4.** Jull G. Discord between approaches to spinal and extremity disorders: is it logical? *J Orthop Sports Phys Ther*. 2016;46:938-941. https://doi.org/10.2519/jospt.2016.0610
- 5. Lluch Girbés E, Meeus M, Baert I, Nijs J. Balancing "hands-on" with "hands-off" physical therapy interventions for the treatment of central sensitization pain in osteoarthritis. *Man Ther*. 2015;20:349-352. https://doi.org/10.1016/j.math.2014.07.017
- 6. Nijs J, Goubert D, Ickmans K. Recognition and treatment of central sensitization in chronic pain patients: not limited to specialized care. J Orthop Sports Phys Ther. 2016;46:1024-1028. https:// doi.org/10.2519/jospt.2016.0612
- O'Sullivan P, Caneiro JP, O'Keeffe M, O'Sullivan K. Unraveling the complexity of low back pain. J Orthop Sports Phys Ther. 2016;46:932-937. https://doi.org/10.2519/jospt.2016.0609
- Oxford Dictionaries. Available at: http://www. oxforddictionaries.com/definition/kick-and-rush. Accessed March 29, 2017.
- Peach G, Schep G, Palfreeman R, Beard JD, Thompson MM, Hinchliffe RJ. Endofibrosis and kinking of the iliac arteries in athletes: a systematic review. Eur J Vasc Endovasc Surg. 2012;43:208-217. https://doi.org/10.1016/j. ejvs.2011.11.019
- 10. Sørensen J, Hetland ML. Diagnostic delay in patients with rheumatoid arthritis, psoriatic arthritis and ankylosing spondylitis: results from the Danish nationwide DANBIO registry. Ann Rheum Dis. 2015;74:e12. https://doi.org/10.1136/ annrheumdis-2013-204867
- Warner A, Walters K, Lamahewa K, Buszewicz M. How do hospital doctors manage patients with medically unexplained symptoms: a qualitative study of physicians. J R Soc Med. 2017;110:65-72. https://doi.org/10.1177/0141076816686348
- **12.** Woolf CJ. Central sensitization: implications for the diagnosis and treatment of pain. *Pain*. 2011;152:S2-S15. https://doi.org/10.1016/j. pain.2010.09.030

