Can Patient Testimonials Constitute Evidence? Plantar Fasciitis—Part II

After five years of contributing editorials to this journal, it seems that my recent editorial on plantar fasciitis has been one of my most well read.¹ Not bad for a paediatric physiotherapist! I suspect (and hope) that the main message of that editorial—how to access relevant research literature to inform your clinical practice via PubMed and Google or Google Scholar—was the part that readers found interesting, as opposed to the predominantly middle-aged musculoskeletal ailment itself and how it had affected me.

As you may recall, I had searched the research literature that was available to me (without a subscription) to diagnose and treat my long-standing plantar fasciitis.¹ Based on that admittedly limited search, I concluded that I should purchase and use pre-fabricated shoe inserts combined with new running shoes, conduct tissue-specific plantar fascia stretching three times daily, take ibuprofen, discontinue jogging, and decrease brisk walking until the pain had resolved. Although I admit that was far from a compliant patient, I was nevertheless disappointed when none of those treatments seemed to work and the pain persisted. As a proud evidence-based consumer, I felt like a total failure. But then I heard from a colleague about a private-practice physiotherapist in Vancouver who specialized in treating foot problems and decided that I would give that a try, since I was making no progress on my own.

PHYSIOTHERAPY FOR PLANTAR FASCIITIS

Although this private practitioner has an excellent reputation and is the owner of a very successful physiotherapy clinic, I was a bit taken aback when she suggested “mobilizing” the foot and ankle joints of my affected limb. I had read absolutely nothing in the research literature to suggest that joint mobilization would be effective in alleviating long-standing pain in the plantar fascia, nor did it make anatomical or biomechanical sense to me. Not only that, her premise for this approach was based on knowledge she had gained from taking a neurodevelopmental treatment (NDT) course. I tried very hard to follow her logic about the relationship between the nervous system and musculoskeletal system, but I was extremely sceptical about an approach that had not been described in any of the research literature that I had read.

In addition to the joint mobilization at that first visit, the physiotherapist had me work on one-legged standing balance on each lower extremity and also applied ultrasound to the plantar fascia of my affected foot. She then taped the foot and ankle and advised me to roll the sole of my foot over a tennis ball as a home activity, one that I had read about in some of the literature I had previously reviewed. Prior to the treatments at that first visit, the therapist applied pressure to the “hot point” of my pain. Following the joint mobilization, she reapplied pressure to that same point, and the pain was remarkably less. I was beginning to have confidence that this form of treatment might actually be effective. And when I stood up to walk out of the clinic, I was even more convinced that the “magic” had actually worked!

In three subsequent visits, the physiotherapist continued with the joint mobilization—not only of my foot and ankle but also of my hip on the affected side. Other treatments included electrical stimulation to the involved plantar fascia and practising the one-legged standing at home. However, I was certain that it was the mobilization that was making the difference in relieving the heel pain that had put a halt to my lifelong recreational jogging over the past 7 months.

By the second or third appointment, when I was becoming a true believer in the benefits of joint mobilization for plantar fasciitis, I suggested to the physiotherapist that she should perhaps write up my treatment and its successful results as a case report.² At that point, she sort of rolled her eyes, and I suspect was thinking to herself, “Why was I ‘lucky’ enough to get this evidence-based academic as a patient?” Needless to say, writing me up as a case report was the *last* thing she wanted to do in her very busy practice.

PATIENT OUTCOME AND TESTIMONIAL

It took only four physiotherapy treatment sessions, each of which included joint mobilization, over the span of a month to induce my “cure.” Quite frankly, the results were remarkable, considering that even standing and walking had been painful for me over the preceding 7 months and I had not jogged in 8 months.

On the physiotherapist’s advice, I slowly began to increase my weekly walking regimen from 10–15 miles per week to 15–20 miles, but for sessions of

only 30 minutes each, as she had cautioned. Two months after finishing the course of treatments, I resumed jogging, but only for 2- to 3-minute bouts interspersed with brisk walking. Last week, about 3½ months after finishing the month-long course of physiotherapy, I logged 6½ hours of brisk walking and jogging for a total of 26 miles—a similar level of exercise to what I had been doing prior to the onset of the plantar fasciitis.

Why am I convinced that it was the physiotherapy that made the difference (and especially the mobilization) in allowing me to resume my previous level of exercise? There are several reasons, all of which could be refuted by any typically hard-nosed evidence-based academic: (1) there was an immediate decrease in the “trigger point” tenderness in my heel following the first session of joint mobilization; (2) my heel pain continued to decrease following each of the subsequent three treatments; and (3) I am now able to walk and jog, without heel pain, at the same intensity and duration at which I was doing these activities prior to the onset of the fasciitis.

Sceptics might make the following counter-arguments to these testimonial comments, as in an article about alternative medicine and common errors of reasoning:³ (1) the physiotherapist who treated me had a solid reputation of success in treating foot and ankle ailments, and I, as a patient, believed in her (i.e., a placebo effect); (2) the hands-on mobilization and its “magic,” for someone who had not previously experienced this type of treatment, was all-powerful – again, a placebo effect?; (3) the plantar fasciitis had just run its natural course and had spontaneously resolved by the end of 7 months. There is certainly support for this last counter-argument: symptoms resolve in more than 80% of patients within 12 months.⁴

EVIDENCE FOR JOINT MOBILIZATION IN PLANTAR FASCIITIS

What does the research literature have to say about joint mobilization or manipulation in the treatment of plantar fasciitis? The short answer is “practically nothing.” Based on my recent success as a patient, I did a quick PubMed search using the terms “plantar fasciitis AND joint mobilization” and then “plantar fasciitis AND joint manipulation.” Results of the first search revealed only one article, a 2006 retrospective case series of 15 patients who had all undergone surgery (i.e., plantar fasciotomy) for treatment of their lateral foot pain before receiving foot and ankle mobilization or manipulation from a chiropractor for recalcitrant pain.⁵ The second set of search terms, using “manipulation,” brought up that same article⁵ as well as only one other, which was not particularly relevant, since it addressed radiologic examination for unresponsive plantar fasciitis.⁶

The relative absence of published research on the effects of joint mobilization or manipulation in the treatment of plantar fasciitis is corroborated by the fact that there were no such studies cited either in the most recent (2003) Cochrane review on this topic⁷ or in a 2004 review article in the *New England Journal of Medicine*.⁴ However, a just-published set of clinical practice guidelines (CPG) on plantar fasciitis,⁸ which used the term “manual therapy” as opposed to “joint mobilization” or “joint manipulation,” reported two additional studies—one a case series of four patients⁹ and the other a case report.¹⁰ In the case series,⁹ all patients received a combination of mobilization and manipulation, as well as stretching. Two of the four were prescribed foot orthoses, and a third received strengthening exercises in addition to the manual therapy and stretching. All four patients showed improvement in pain relief and function. In the case report,¹⁰ the patient received active and passive mobilization as well as low-Dye taping and therapeutic exercises. That patient also showed pain resolution and functional improvement in standing and walking.

The very limited published research for a treatment that certainly seemed to be effective in my own case further underscores the importance of clinicians’ conducting (and publishing) additional case reports² or case series. Many published studies evaluating different treatments for plantar fasciitis have used visual analogue scales (VAS) to assess heel pain as the primary outcome.⁷ In hindsight, I note that if my own physiotherapist had instructed me to complete a VAS before beginning my course of treatments and then again at the conclusion of treatments, we would have had some client-centred, objective evidence of its success.

Even more powerful, from the standpoint of the International Classification of Functioning, Disability and Health (ICF),¹¹ would have been to monitor and measure the changes in my activity and participation (i.e., return to jogging and increased weekly physical activity) as an outcome. Fortunately, the recently published CPG⁸ is linked to the ICF and will provide an extremely valuable resource for clinicians who treat patients with plantar fasciitis.

In light of the fact that only three papers have been published, involving only 20 patients,^{5,9,10} even an “*n* of 1” prospective case report examining the effects of joint mobilization in the treatment of plantar fasciitis would be an important contribution to the limited literature and might encourage other clinicians to follow suit, thus building the body of evidence.

PATIENT TESTIMONIALS VS. EVIDENCE

Can patient testimonials ever constitute “evidence”? Certainly not, at least according to the Centre for Evidence-Based Medicine at Oxford University.¹²

The lowest level (level 5) of evidence for the effectiveness of therapy is “expert opinion without explicit clinical appraisal.”¹² However, a case series of patients with plantar fasciitis treated with joint mobilization or manipulation would at least make it onto the evidence table at level 4 and would be a very worthwhile contribution to the currently limited research literature on the efficacy of this treatment. Furthermore, it is just the type of case series that we would be very keen to publish in *Physiotherapy Canada*!

Unfortunately, we will never know whether my successful return to the league of Baby Boomer recreational athletes was due to my receipt of joint mobilization or to a placebo effect, the skills of one highly specialized musculoskeletal physiotherapist, or the spontaneous remission of my malady. As the patient in this story, I firmly believe it was the mobilization that made the difference. Putting on my usual hat as the hard-nosed evidence-based academic, however, I believe the jury is still out. I leave it to my clinician colleagues to carry out and publish a series of case reports that will satisfy that “jury.”

CLOSING REMARKS

This is the last editorial that I will write as this journal's Editor-in-Chief, as I will be retiring from that position in October 2008. During the 5½ years that I have served as either Scientific Editor or Editor-in-Chief, I have been privileged to work with an extremely talented and dedicated editorial board, more than 100 conscientious and constructive manuscript and book reviewers, and a hard-working and diligent CPA journal staff. Most importantly, I wish to thank Paul Stratford for taking on the role of Editor in October 2006. It has been my great pleasure to work so closely with Paul over the past two years and to watch the journal grow under his inspiring leadership.

Finally, thank you to those of you who have contributed to the journal as authors during my time as editor. Thank you for believing in this journal and in me. Some of you are respected and well-published senior authors who were willing to keep *Physiotherapy Canada* going with continued submissions, regardless of my inability to get the journal indexed in MEDLINE. Others of you are junior authors, including students, for whom *Physiotherapy Canada* has provided a “home” for your first publication. One of my goals when I took over as Scientific Editor in 2003 was to mentor junior authors

who were submitting to a journal for the first time. Thanks in large part to our Associate Editors and peer reviewers, I believe that goal has been attained.

Both Paul and I (and the entire editorial board) are thrilled to welcome Dr. Dina Brooks as the new Scientific Editor of *Physiotherapy Canada*. Dina has been an Associate Editor for the journal since I began my first term in March 2003 and has been a constant support to me during the ups and downs that the journal has experienced over that time. We are confident that Dina will bring new and creative ideas forward and succeed in making this journal better than ever!

Susan R. Harris
Editor-in-Chief

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DOI:10.3138/physio.60.4.289