

## Balancing precision and perception: Management of a complex case of chronic heel pain

Special Interest          Poster Yes

Implementing a biopsychosocial approach to patient care along with precise identification of a structural nociceptive driver in diagnosis remains pivotal for clinical excellence in orthopedic physical therapy. Utilization of diagnostic specificity in the presence of pain can inadvertently bolster patients' metacognition of inherent tissue vulnerability. The Fit-for-Purpose model (FFPM) posits that chronic low back pain stems from entrenched internal beliefs of tissue fragility, advocating for treatments that reshape beliefs to align with external evidence of tissue health.(1) This case study 1) explores the relevance of the FFPM beyond chronic low back pain, and 2) prompts reflection of balancing clinical excellence with the biopsychosocial model for patient care.

A 31-year-old woman presented 2 weeks following Strayer gastrocnemius recession (2) in response to 5-year history of right heel pain unresponsive to conservative management. Post-operatively, she experienced milder symptoms on the contralateral limb. Numeric Pain Rating Scale (NPRS): 4/10 pain at worst, Central Sensitization Inventory (Part A): 36, Modified StarT Back 4 (subscore 2), Lower Extremity Functional Scale (LEFS): 15/80. Range of motion (ROM) limitations and strength deficits were noted bilaterally, with tenderness reported on palpation of the plantar aspect of both heels. Interventions aimed to restore impairments, with the goal of returning the patient to pre-operative levels of function within six months. Secondary to persistent pain, differential diagnoses were ruled out through objective testing.(3) Variance between objective and subjective findings, combined with negative patient language (i.e. "my messed-up, twisted foot"), prompted investigation into patient's internal model of tissue health. Quantitative sensory testing (5) positive for deficits in two-point discrimination (central plantar heel: L 2.1cm, R 1.1 cm) and graphesthesia (central plantar heel: 75% accuracy L, 100% R) with post-test increase in pain reported. Plan of care transitioned to sensory re-integration training.

At 6 months, the patient's LEFS improved to 63, NPRS 3/10. She achieved bilateral improvement in single-leg heel raise (10/20 bilaterally), symmetrical ROM, and improved two-point discrimination (1.5cm on R). While pain persisted with activity, it fully resolved overnight, enabling her to walk over 20,000 steps per day. This case underscores the delicate balance between accurate diagnosis and potential impact on patients' perception of musculoskeletal health. Thorough medical investigation to identify nociceptive drivers may inadvertently strengthen the patient's belief in poor tissue health despite contradictory evidence. Early consideration of psychosocial factors (4) and interventions aligned with the FFPM may lead to improved outcomes and heightened clinical excellence. This abstract highlight the tendency within orthopedic physical therapy to overly prioritize diagnostic accuracy to drive manual interventions, potentially neglecting crucial psychosocial factors influencing patient prognostics and outcomes. It underscores how clinicians' diagnostic efforts, while aiming for precision, may inadvertently reinforce patients' perceptions of tissue vulnerability. By using the framework of the Fit-for-Purpose model (FFPM), improved outcomes were achieved when the plan of care prioritized psychosocial factors and fostering a holistic approach to patient care.

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