

## CASE REPORT

## THE EFFECTS OF A MULTIMODAL REHABILITATION PROGRAM ON PAIN, KINESIOPHOBIA AND FUNCTION IN A RUNNER WITH PATELLOFEMORAL PAIN

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## ABSTRACT

**Background and Purpose:** Multimodal interventions possess the strongest evidence in the long-term management of patellofemoral pain, but despite receiving evidence-based treatments that are initially effective many patients report recurrent or persistent symptoms for years after the initial diagnosis. Untreated psychological factors could be a possible explanation for persistent symptoms and poor treatment outcome. The purpose of this case report was to describe and evaluate the effects of a multimodal rehabilitation program that included pain education, a graded program of lower limb strengthening, and running retraining on pain, kinesiophobia, and function in a runner with patellofemoral pain.

**Case description:** The subject was a 37-year-old female runner reporting a 12-month history of anterior knee pain with previous failed physiotherapeutic treatment. She discontinued running when symptoms gradually worsened, approximately six months after initial onset. She was advised to avoid painful activities. Clinical examination revealed pain during the performance of a weight-bearing functional task, fear of movement, and functional limitations. Treatment focused on pain education, self-management strategies, and progressive loading of the involved tissues through a graduated program of exercises and running retraining.

**Outcomes:** Clinically meaningful improvements were seen in pain, kinesiophobia, and function following a 21-week multimodal rehabilitation program.

**Discussion:** This case report illustrates several important aspects of clinical reasoning contributing to successful outcomes for a runner with patellofemoral pain. The multimodal rehabilitation program utilized was based upon the neurophysiology of pain (pain education) rather than the tissue pathology model. The findings from this case report may be used to benefit clinicians with similar subject presentations and drive future research into the use of these interventions based upon neurophysiology models of pain in the treatment of patellofemoral pain.

**Level of Evidence:** Level 4

**Key words:** Kinesiophobia, pain education, patellofemoral pain, running

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