

# Fatigue matters: Rethinking knee osteoarthritis management for improved walking performance

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Sir,

Knee osteoarthritis is one of the most common musculoskeletal disorders worldwide, and is a leading contributor of walking related disability.(1,2) Conventionally, walking related disability in persons with knee osteoarthritis is attributed to knee pain, however, recent studies have shown that impaired gait biomechanics in knee osteoarthritis increase the energy consumption during gait, which leads to an increase in walking related performance fatigability.(1,2) A recent study published in 2023 demonstrated a significantly higher walking related performance fatigability in persons with knee osteoarthritis, as compared to healthy controls, signifying that walking related disability among persons with knee osteoarthritis is not only due to pain, but also due to increased fatigue.(1) Because of this, it has been suggested that performance fatigability should also be focused in terms of assessment and management of knee osteoarthritis, however, due to its novelty, there is a dearth of evidence related to knee osteoarthritis management targeting walking related performance fatigability as an outcome.(3)

Regarding the conservative management options for knee osteoarthritis, joint mobilization techniques and resistance exercise training have been shown to be effective, addressing the articular and contractile aspects of knee osteoarthritis, respectively. These conservative management options have been found effective in terms of clinical outcomes of pain, function, spatiotemporal gait parameters, balance, isometric muscle strength, and knee range of motion without any associated adverse effects (4,5). However, there is a paucity of literature regarding the effects

of the aforementioned conservative management strategies on walking related performance fatigability as an outcome measure in persons with knee osteoarthritis.

Thus, it is recommended that future studies should focus on different treatment strategies such as resistance exercise training and joint mobilization in context of walking related performance fatigability as an outcome, which is an important contributor to walking related disability in persons with knee osteoarthritis.

**Keywords:** Knee Joint, Knee Osteoarthritis, Physical therapy, Walking Performance, Walking Related Performance Fatigability.

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