DOI: 10.7860/JCDR/2025/80480.22656

Effect of Myofascial Release on Pain and Quality of Life in Patients with Flexible Flat Foot: A Randomised Controlled Trial

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ABSTRACT

Introduction: Flexible flatfoot is a common musculoskeletal condition characterised by the loss of the foot arch during weight-bearing, leading to altered gait biomechanics, increased stress on soft tissues, and pain. Chronic foot pain can impair mobility, elevate the risk of falls, and negatively impact daily activities and quality of life. Myofascial Release (MFR) therapy has gained attention for its potential to alleviate pain and improve musculoskeletal function. This study aims to evaluate the effectiveness of MFR therapy in comparison to conventional exercise therapy for pain reduction and quality of life improvement in individuals with flexible flatfoot.

Aim: To assess the potential of MFR on reduction of pain in patients with fexible flat foot patients. It also aimed to evaluate the impact of MFR on addressing enhancement in quality of life in patients with flexible fl at foot patients.

Methods: A randomised controlled trial with 30 participants (aged 20–50 years) diagnosed with flexible flatfoot pain was conducted. Participants were randomly allocated into:

- Experimental group (n=15): Received MFR therapy along with exercise intervention.
- Control group (n=15): Received exercise intervention only.

The intervention lasted four weeks (five sessions per week). Pain intensity was assessed using the Numeric Pain Rating Scale (NPRS), while quality of life was measured using the Short Form (SF) 36 questionnaire. Statistical analysis included paired t-tests for intragroup and unpaired t-tests for intergroup comparisons.

Results: Both groups showed significant improvements ($p < 0.05$) in pain reduction and quality of life. However, the experimental group demonstrated superior improvements, emphasising the efficacy of MFR therapy over conventional physiotherapy.

Conclusion: MFR therapy, combined with exercise, provides greater pain relief and functional benefits in patients with flexible flatfoot compared to exercise alone. Future research with larger sample sizes and longer follow-up periods is recommended to establish long-term efficacy.

Keywords: Gait biomechanics, Numeric pain rating scale, Pain management

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