

**PENGARUH PEMBERIAN *TRANSCUTANEUS ELECTRICAL NERVE STIMULATION* (TENS) DAN *MYOFASCIAL RELEASE TRIGGER POINT* TERHADAP PENURUNAN NYERI PADA KASUS *LOW BACK PAIN* MIOGENIK**

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**ABSTRAK**

**Latar Belakang :** *Low Back Pain* (LBP) merupakan salah satu masalah muskuloskeletal yang sering dialami oleh pekerja dengan aktivitas fisik berulang, terutama yang melibatkan otot *paraspinal* dan *quadratus lumborum*. LBP miogenik umumnya disebabkan oleh spasme otot, *trigger point*, serta restriksi *fascia* yang menimbulkan nyeri dan keterbatasan gerak. Berbagai intervensi fisioterapi telah digunakan, di antaranya *Transcutaneous Electrical Nerve Stimulation* (TENS) dan *Myofascial Release Trigger Point* (MFR-TP), yang sama-sama bertujuan untuk menurunkan nyeri..

**Tujuan :** Mengetahui efektivitas pemberian TENS dan *Myofascial Release Trigger Point* terhadap penurunan nyeri pada kasus *Low Back Pain* miogenik.

**Metode Penelitian :** Penelitian ini menggunakan desain *quasi experiment* dengan pendekatan *pre-test and post-test control group design*. Subjek penelitian adalah pekerja bangunan dengan keluhan LBP miogenik yang memenuhi kriteria inklusi dan eksklusi. Pengukuran nyeri dilakukan menggunakan skala *Visual Analogue Scale* (VAS). Analisis data dilakukan dengan uji statistik *paired t-test* untuk mengetahui perbedaan sebelum dan sesudah intervensi, serta *independent t-test* untuk membandingkan kedua kelompok.

**Hasil :** Hasil penelitian menunjukkan adanya penurunan signifikan pada skor nyeri setelah pemberian kombinasi *Myofascial Release Trigger Point* dan TENS. Dibandingkan kedua kelompok, intervensi kombinasi MFR-TP dan TENS memberikan penurunan nyeri yang lebih besar dibandingkan hanya menggunakan TENS ( $p < 0,05$ ).

**Kesimpulan :** Kombinasi *Myofascial Release Trigger Point* dan TENS lebih efektif dibandingkan hanya menggunakan TENS dalam menurunkan nyeri pada kasus *Low Back Pain* miogenik. Terapi ini dapat direkomendasikan sebagai salah satu intervensi fisioterapi untuk mengurangi keluhan nyeri dan meningkatkan fungsi pada penderita LBP.

**Kata Kunci :** *Low Back Pain*, TENS, *Myofascial Release*, *Trigger Point*, Nyeri

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**THE EFFECT OF TRANSCUTANEOUS ELECTRICAL NERVE  
STIMULATION (TENS) AND MYOFASCIAL RELEASE TRIGGER POINTS  
ON PAIN REDUCE IN CASES OF MYOGENIC LOW BACK PAIN**

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**ABSTRACT**

**Background:** *Low Back Pain (LBP) is one of the most common musculoskeletal problems experienced by workers who perform repetitive physical activities, particularly involving the paraspinal and quadratus lumborum muscles. Myogenic LBP is generally caused by muscle spasms, trigger points, and fascial restrictions, which result in pain and limited mobility. Several physiotherapy interventions have been applied to manage this condition, including Transcutaneous Electrical Nerve Stimulation (TENS) and Myofascial Release Trigger Point (MFR-TP), both of which aim to reduce pain.*

**Purpose:** *To investigate the effectiveness of TENS and Myofascial Release Trigger Point in reducing pain among patients with myogenic Low Back Pain.*

**Method:** *This study employed a quasi-experimental design with a pre-test and post-test control group. The subjects were workers with myogenic LBP who met the inclusion and exclusion criteria. Pain intensity was measured using the Visual Analogue Scale (VAS). Data were analyzed using a paired t-test to compare pre- and post-intervention results and an independent t-test to compare outcomes between the two groups.*

**Result:** *The results of this study showed a significant reduction in pain scores after the administration of a combination of Myofascial Release Trigger Point (MFR-TP) and Transcutaneous Electrical Nerve Stimulation (TENS). When compared between the two groups, the combined intervention of MFR-TP and TENS produced a greater reduction in pain than using TENS alone ( $p < 0.05$ ).*

**Conclusion** *The combination of Myofascial Release Trigger Point and TENS is more effective than TENS alone in reducing pain in cases of myogenic Low Back Pain (LBP). This therapy can be recommended as one of the physiotherapy interventions to reduce pain complaints and improve function in patients with LBP.*

**Keywords:** *Low Back Pain, TENS, Myofascial Release, Trigger Point, Pain*

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