

# **PEMBERIAN INTERVENSI TRANSCUTANEOUS ELECTRICAL NERVE STIMULATION DAN STRENGTHENING EXERCISE UNTUK MENINGKATKAN KEMAMPUAN AKTIVITAS FUNGSIONAL PADA PENDERITA OSTEOARTHRITIS LUTUT**

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## **Abstrak**

Osteoarthritis merupakan penyakit sendi degeneratif yang berkaitan dengan kerusakan kartilago sendi, dimana terjadi proses degradasi interaktif sendi yang kompleks, terdiri dari proses perbaikan pada kartilago, tulang dan sinovium diikuti komponen sekunder proses inflamasi. Tujuan penulisan ini untuk mengetahui apakah Pemberian intervensi Transcutaneous Elektrikal Nerve Stimulation dan Strengthening Exercises dapat meningkatkan kemampuan aktifitas fungsional. Desain studi kasus dengan pre & post case study dengan jumlah sample 1 orang. Dengan pemberian intervensi Transcutaneous Elektrikal Nerve Stimulation dan Strengthening Exercises dengan dosis 4x seminggu selama 4 minggu. Parameter yang digunakan untuk mengukur aktivitas fungsional adalah *Western Ontario and McMaster Universities Arthritis Index* (WOMAC). Berdasarkan hasil evaluasi didapatkan peningkatan aktivitas fungsional. Dengan intensitas skor WOMAC sebelum 40 dan sesudah menjadi 26.

**Kata Kunci** : Aktivitas fungsional, Osteoarthritis, Strengthening Exercises Transcutaneous Elektrikal Nerve Stimulation

# **INTERVENTION OF TRANSCUTANEOUS ELECTRICAL NERVE STIMULATION AND STRENGTHENING EXERCISE TO IMPROVE THE CAPABILITY OF FUNCTIONAL ACTIVITIES IN *KNEE OSTEOARTHRITIS***

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## **Abstract**

Osteoarthritis is a degenerative joint disease that is associated with damage to joint cartilage, where there is a complex interactive degradation process of the joint, consisting of a repair process in the cartilage, bone and synovium followed by a secondary component of the inflammatory process. The purpose of this paper is to find out whether the provision of Transcutaneous Electric Nerve Stimulation intervention and Strengthening Exercises can improve the ability of functional activities. Design case studies with pre & post case studies with a sample size of 1 person. By giving Transcutaneous Electric Nerve Stimulation interventions and Strengthening Exercises with a 4x dose a week for 4 weeks. The parameters used to measure functional activity are Western Ontario and McMaster Universities Arthritis Index (WOMAC). Based on the results of the evaluation obtained an increase in functional activity. With the intensity of the WOMAC score before 40 and after 26.

**Keywords :** Functional activity, Osteoarthritis, Strengthening Exercises  
Transcutaneous Electric Nerve Stimulation