

**EFEKTIVITAS *PENDULUM EXERCISE* TERHADAP PENURUNAN  
NYERI DAN PENINGKATAN KEMAMPUAN FUNGSIONAL  
PADA *FROZEN SHOULDER* di RSUD AJIBARANG**

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**ABSTRAK**

**Latar Belakang:** Frozen shoulder merupakan salah satu gangguan muskuloskeletal pada bahu yang ditandai dengan rasa nyeri serta keterbatasan lingkup gerak sendi, sehingga berdampak pada aktivitas sehari-hari. Salah satu latihan yang sederhana, aman, dan umum digunakan pada fase awal rehabilitasi adalah latihan pendulum.

**Tujuan :** Penelitian ini bertujuan untuk menganalisis efektivitas latihan pendulum dalam menurunkan nyeri dan meningkatkan fungsi bahu pada pasien frozen shoulder di RSUD Ajibarang.

**Metode Penelitian :** Rancangan penelitian yang digunakan adalah *quasi experiment* dengan pendekatan *pre-test and post-test control group design*. Sebanyak 20 responden dipilih berdasarkan kriteria inklusi dan eksklusi, kemudian dibagi menjadi dua kelompok. Kelompok kontrol mendapatkan fisioterapi sesuai standar rumah sakit, sedangkan kelompok perlakuan diberikan latihan pendulum dengan frekuensi dua kali per minggu selama empat minggu (total delapan sesi). Penilaian dilakukan sebelum dan sesudah intervensi menggunakan **Numeric Rating Scale (NRS)** untuk mengukur nyeri serta **Shoulder Pain and Disability Index (SPADI)** untuk menilai fungsi bahu. Data yang terkumpul dianalisis untuk melihat perbedaan hasil dalam kelompok maupun antar kelompok.

**Hasil:** Terdapat penurunan nyeri yang signifikan dan peningkatan kemampuan fungsional; pada kelompok *pendulum exercise* dibandingkan dengan kelompok kontrol. Kelompok intervensi mengalami penurunan skor NRS dan penurunan skor SPADI sehingga kemampuan fungsional meningkat yang lebih bermakna setelah empat minggu terapi.

**Kesimpulan:** *Pendulum exercise* terbukti efektif dalam menurunkan nyeri dan meningkatkan kemampuan fungsional bahu pada pasien *frozen shoulder*.

Kata kunci: *Pendulum Exercise, Nyeri, SPADI*

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**EFFECTIVENESS OF PENDULUM EXERCISE ON REDUCING PAIN  
AND IMPROVING FUNCTIONAL ABILITY IN PATIENTS WITH  
FROZEN SHOULDER AT RSUD AJIBARANG  
AJIBARANG**

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**ABSTRACT**

**Background:** Frozen shoulder is a musculoskeletal disorder of the shoulder characterized by pain and limitation of joint movement, which may interfere with daily activities. Pendulum exercise is a simple and safe therapeutic approach that is commonly prescribed in the early phase of rehabilitation to reduce pain and gradually improve shoulder mobility.

**Objective:** This study aims to determine the effectiveness of pendulum exercise in reducing pain and improving shoulder function in patients with frozen shoulder at Ajibarang Regional General Hospital.

**Methods:** The research employed a quasi-experimental design with a pre-test and post-test control group. A total of 20 participants were recruited based on inclusion and exclusion criteria, then divided into two groups. The control group received physiotherapy according to the hospital's standard protocol, while the intervention group underwent pendulum exercise twice a week for four weeks (eight sessions in total). Pain intensity was measured using the **Numeric Rating Scale (NRS)**, and shoulder function was evaluated with the **Shoulder Pain and Disability Index (SPADI)**. Data were analyzed to assess changes within and between groups. Significant reduction of pain and improvement in shoulder function were observed in the intervention group compared to the control group.

**Result:** Pendulum exercise is effective in reducing pain and enhancing shoulder functional ability in patients with frozen shoulder, and may be recommended as part of physiotherapy intervention at Ajibarang Regional General Hospital.

**Conclusion:** Pendulum exercise is effective in reducing pain and enhancing shoulder functional ability in patients with frozen shoulder. Therefore, it is recommended as part of physiotherapy management at Ajibarang Regional General Hospital.

**Keywords:** Pendulum exercise, pain, SPADI

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