

## ABSTRAK



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### **PERBEDAAN *STRENGTHENING EXERCISE* PADA HIDROTERAPI DENGAN *LAND BASED EXERCISE* TERHADAP PENINGKATAN FUNGSIONAL PADA OSTEOARTHRITIS LUTUT**

Terdiri dari VI bab, 90 Halaman, 16 Tabel, 10 Gambar, 5 Grafik, - 4 Skema, - 5 Lampiran

**Tujuan:** Untuk mengetahui perbedaan *strengthening exercise* pada hidroterapi dengan *land based exercise* terhadap peningkatan fungsional pada osteoarthritis lutut. **Metode:** Metode penelitian bersifat *quasi experiment* dengan sampel terdiri dari 16 orang pasien osteoarthritis lutut yang dipilih berdasarkan teknik *matching allocation* dan dikelompokkan menjadi 2 kelompok masing-masing kelompok terdiri dari 8 orang, kelompok perlakuan I dengan *strengthening exercise* pada hidroterapi dan kelompok perlakuan II dengan *strengthening exercise* pada *land based exercise*. Latihan dilakukan selama 2 minggu sekali selama 6 minggu dan fungsional lutut diukur menggunakan kuisioner WOMAC. **Hasil:** Uji normalitas dengan *Shapiro Wilk Test* didapatkan data berdistribusi normal, sedangkan uji homogenitas dengan *Levene's Test* didapatkan data memiliki varian homogen. Hasil Uji hipotesa I dengan *Paired Sample T-Test*, didapatkan nilai  $p=0,001$ . Uji hipotesa II, didapatkan nilai  $p=0,003$  yang berarti pemberian latihan pada kedua kelompok perlakuan dapat meningkatkan fungsional pada osteoarthritis lutut. Pada hasil *T-Test Independent* menunjukkan nilai  $p=0,002$  yang berarti terdapat perbedaan pengaruh yang signifikan antara kelompok perlakuan I dan kelompok perlakuan II. **Kesimpulan:** Ada perbedaan antara *strengthening exercise* pada hidroterapi dengan *strengthening exercise* pada *land based exercise* terhadap peningkatan fungsional pada osteoarthritis lutut.

**Kata Kunci:** *Strengthening Exercise*, Hidroterapi, *Land Based Exercise*, Fungsional, Osteoarthritis Lutut

## ABSTRACT



Thesis, January 2018

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### **DIFFERENCE OF STRENGTHENING EXERCISE IN HYDROTHERAPY WITH LAND BASED EXERCISE ON FUNCTIONAL IMPROVEMENTS IN KNEE OSTEOARTHRITIS**

Consists of VI Chapters, 90 Pages, 16 Tables, 10 Images, 5 Graph, 4 Schemes, 5 Annex

**Objective:** To determine the difference between strengthening exercise in hydrotherapy with land based exercise on functional improvement in knee osteoarthritis. **Methods:** The research method is quasi-experimental with a sample of 16 knee osteoarthritis patients selected based on matching allocation techniques and grouped into 2 groups, each group consisting of 8 people, treatment group I with strengthening exercise in hydrotherapy and treatment group II with strengthening exercises on land based exercises. Exercises were performed every 2 weeks for 6 weeks and functional knees were measured using the WOMAC questionnaire. **Results:** Normality test with Shapiro Wilk Test obtained normal distribution of data, while the homogeneity test with Levene's Test obtained data have homogeneous variants. Hypothesis I Test Results with Paired Sample T-Test, obtained  $p = 0.001$ . Hypothesis II test, obtained  $p = 0.003$  which means that the provision of exercise in both treatment groups can improve functional osteoarthritis of the knee. The results of the Independent T-Test show the value of  $p = 0.002$  which means there is a significant difference in effect between the treatment group I and treatment group II. **Conclusion:** There is a difference between strengthening exercise in hydrotherapy and strengthening exercise in land based exercise to functional improvement in knee osteoarthritis.

**Keywords :** Strengthening Exercise, Hydrotherapy, Land Based Exercise, Functional, Knee Osteoarthritis