



## ABSTRACT

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### **ULTRASOUND INTERVENTION AND SQUATTING EXERCISE ARE AS GOOD AS ULTRASOUND INTERVENTION AND THE USAGE OF MEDIAL ARCH SUPPORT ON *CHONDROMALACIA PATELLA* DUE TO *GENU VALGUS* IN INCREASING FUNCTIONAL ACTIVITIES**

Consists of VI CHAPTERS, 108 pages, 10 figures, 4 schemes, 13 tables, 6 graphs, 5 appendices

**Objective :** To discover the difference between ultrasound intervention and squatting exercise and ultrasound intervention and the usage of medial arch support on chondromalacia patella due to genu valgus on the increase of functional activities. **Method :** Quasi Experiment with Pretest-Posttest Group Control where increased functional ability of the lower extremities in *Chondromalacia Patella* was measured by *Lower Extremity Functional Scale* (LEFS). The sampling technique was purposive sampling, collecting 20 samples aged 18-40 years old. The study was conducted in Guji Village RT.002/RW.02 clinic on May – June 2015. It's classified by matching allocation into treatment group I with Ultrasound intervention and squatting exercise and treatment group II with Ultrasound intervention and usage of Medial Arch Support. **Result :** Normality test by Shapiro Wilk Test produces  $p > \alpha$  (0,05) data distributed normally. Homogeneity test by Levene's Test produces  $p > \alpha$  (0,05) data was homogenous. Test of hypothesis I by Paired Sample T Test produces  $p = 0.001$  so Ultrasound intervention and squatting exercise increased functional activities of lower extremities in the case of *Chondromalacia Patella*. Test of hypothesis II by Paired Sample t Test produces  $p = 0.001$  so Ultrasound intervention and usage of Medial Arch Support increased functional activities of lower extremities in the case of *Chondromalacia Patella*. Test of hypothesis III by t-Test Independent Sample produces  $p = 0.081$  so Ultrasound intervention and squatting exercise was as good as Ultrasound intervention and usage of Medial Arch Support on Chondromalacia Patella due to Genu Valgus in increasing the functional activities of lower extremities in the case of *Chondromalacia Patella*. **Conclusion :** Ultrasound intervention and squatting exercise was as good as Ultrasound intervention and usage of Medial Arch Support on Chondromalacia Patella due to Genu Valgus in increasing the functional activities of lower extremities in the case of *Chondromalacia Patella*.

**Keywords :** *Chondromalacia Patella, Genu Valgus, Ultrasound, Squatting Exercise, Medial Arch Support.*