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ISOMETRIC HIP ABDUCTION EXERCISE EFFECT ON SQUAT EXERCISE AND LUNGES EXERCISE TO IMPROVE KNEE FUNCTIONAL ABILITY IN WOMEN WITH PATELLOFEMORAL PAIN SYNDROME

Consist of VI Chapter, 104 Pages, 11 Table, 11 Image, 5 scheme, 7 Appendix.

Objectives: To know the difference in the effects between *isometric hip abduction exercise* on *squat exercise* and *lunges exercise* in enhancing knee functional ability in women with *patellofemoral pain syndrome*. **Methods:** This research using a *quasi experiment* with pre-post test, the value of knee functional ability measured using *Knee Injury and Osteoarthritis Outcome Score (KOOS)*. A total sample of 16 people is divided into 2 groups. The group I treatment with *isometric hip abduction exercise* and *squat exercise* has a mean \pm SD before intervention is 59.2 ± 3.0 and after intervention 86.9 ± 1.9 , The group II with *isometric hip abduction exercise* and *lunges exercise* have the mean \pm SD before intervention is 63.5 ± 5.4 and after intervention is 69.5 ± 3.8 . **Result:** The normality test with *kolmogorov smirnov* obtained a normal distribution data while testing homogeneity with *levene's test* obtained data has a homogeneous variant. The hypothesis test result for group I with *paired sample t-test* obtained a value of $p < 0,001$ which means the *isometric hip abduction exercise* and *squat exercise* have a significant effect on improving the functional ability of the knee in women with *patellofemoral pain syndrome* condition. In the group II with *paired sample t-test* obtained the value of $p < 0,016$ which means the *isometric hip abduction exercise* and *lunges exercise* have no significant effect on the enhancement of knee functional ability in women with *patellofemoral pain syndrome* condition. On the results of the *independent sample t-test* showed the value $p = 0.001$ which means that there is a significant difference to the functional ability of the knee in the treatment between group I and II. **Conclusion:** There are different *isometric hip abduction exercise* effects on *squat exercise* and *lunges exercise* to increase the functional ability on the knee in women with *patellofemoral pain syndrome*.

Keywords: *Patellofemoral Pain Syndrome, Isometric hip abduction Exercise, Squat Exercise, Lunges Exercise.*