ABSTRACT

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TREADMILL EXERCISE INCREASES FEV1 BOTH IN PATIENTS WITH COPD AS WELL AS IN HEALTHY ADULTS

Consisting of 6 Chapter , 89 pages, 14 list of images, 3 lists the scheme, 14 list of tables, 6 graphs list

Objective: This study was conducted to determine differences in the increase of FEV1 on the treadmill exercise between the COPD patients with healthy adults. **Metode**: This study is a quasi experimental wherein FEV1 measurements using Spirometry performed at the Medical Rehabilitation Installation BBKPM Bandung. The sample consisted of 20 people with ages between 42-76 years who were divided into two groups: the treatment group are people with COPD and control groups are healthy adults. Treadmill exercise given the same dose. **Results**: The results of the Shapiro Wilk normality test data is not normally distributed while the homogeneity test with levene's test data obtained has a homogeneous variant. 10 sample of treatment groups mean before 45.8 ± 1.048, after 49.4 ± 1.088, paired t-test simple obtained $p = 0.003$ ($p < 0.05$), which means exercise treadmill increases FEV1 in patients with COPD. 10 samples before the control group mean of 97.9 ± 1.212, after 101.3 ± 1.105, paired simple t-test obtained $p = 0.003$ ($p < 0.05$), which means that an exercise treadmill increases FEV1 in healthy adults. Test of the difference in the increase in both group, mean of the treatment group 3.6 ± 2.836 and the control group $3,4 \pm 2.633$ by Mann Whitney test showed $p = 0.816$ ($p > 0.05$) it can be concluded that there was no difference in the increase of FEV1 on the exercise treadmill between the COPD patients and healthy adults, which means that treadmill exercise increases FEV1 both in patients with COPD as well as in healthy adults. **Conclution**: Exercise treadmill with the same dose can increase FEV1 both in patients with COPD and healthy adults.

Keywords: FEV1, COPD, exercise treadmill