

ABSTRACT

EFFECTS OF AEROBIC EXERCISE FOR CAPACITY ON PULMONARY FUNCTION AMONG AGAINST MEMBERS OF THE INDONESIAN NAVY (Studi for Members Of The Indonesian Navy has Tasked Learn In Navy Medical School Surabaya)

This research study on "Effects of aerobic exercise for capacity on Pulmonary Function among against members of the Indonesian Navy has tasked learn in Navy Medical School Surabaya", 2015.

This research study aimed to determine the effects aerobic exercise for capacity on Pulmonary function. This research is be a quasi experimental pretest-posttest design was used with control group design, and a sample of 35 was divided into seven treatment groups.

The results of measurements on individual characteristics such as the average age of 27.17 years, height of 167.40 cm, weight of 71.23 kg, and BMI of 25.40%, respectively. The respondents were 13 smokers and 22 non-smokers. There was an increasing average value of FVC 1.10% and FEV₁ 0.23%.

Anova test result of the effect aerobic exercise on pulmonary function capacity FVC value ($p = 0.017$) and FEV₁ values ($p = 0.005$). Anova test result of the effect old and BMI on pulmonary function capacity FVC value ($p = 0.847$) and FEV₁ values ($p = 0.983$) and BMI FVC value ($p = 0.215$) and FEV₁ values ($p = 0.627$). Duration effect aerobic exercise on pulmonary function capacity FVC value ($p = 0.494$) and FEV₁ values ($p = 0.805$). Frequency effect of aerobic exercise on pulmonary function capacity FVC value ($p = 0.001$) and FEV₁ values ($p = 0.000$). The analysis of differences in capacity on pulmonary function for the respondents with smoking and non smoking habit resulted in FVC values ($p = 0.662$) and FEV₁ value ($p = 0.805$).

This research concludes that aerobic exercise is proven to influence the increase in the capacity on pulmonary function for both FVC and FEV₁ values. The experiments regarding with duration and frequency show that only the exercise performed 3 times-per- week affects the increase on pulmonary function

It is suggested that further research is needed on pulmonary function with trained respondents who exercise regularly and those who do not, so the real benefits of exercise can be known in increasing the capacity on pulmonary function.

Keywords : aerobic exercise, duration, frequency, capacity on pulmonary, FVC and FEV₁