

THE COMPARISON EFFECT OF EXERCISE WITH CLUSTER SET AND TRADITIONAL SET METHODS ON THE CARDIOVASCULAR SYSTEM

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ABSTRACT

Changes in cardiovascular function due to regular physical exercise will affect the value of blood pressure and heart rate. This study aims to observe the effect of physical exercise using *Ergocycle* regularly to adaptation the cardiovascular function.

This study was a *true experimental*. A total of 16 male and female students of the Faculty of Medicine Airlangga University was selected as a research subject, and distributed *randomly* into two groups: the *traditional set* (n = 8) and the *cluster set* group (n = 8). *Traditional set* group did a training program, exercise six times a week with twice of individual maximum time in ergocycle with only one break between sets. The *Cluster Set* group did the same amount of time, six times a week with twice of individual maximum time in ergocycle, after the first maximum time, break for 30 seconds and did another 30 seconds set repeatedly until it reach twice of the maximum time. Blood pressure (Systolic and Diastolic) and Heart Rate were measured at baseline (Day 1) and the end of the study (Day 6). Data were processed using *SPSS 23.0 for Windows release* and tested with the *T-Test*.

Blood pressure and heart rate pre-exercise treatment Traditional group set is homogen to the Cluster group set. After 6 days, the results showed no significant changes in blood pressure (systolic and diastolic), as well as the Heart Rate on the subject of male and female.

In conclusion regular physical exercise using *Ergocycle* for 6 days at Airlangga University Faculty of Medicine male and female students did not changes systolic blood pressure, diastolic blood pressure and heart rate.

Keywords: blood pressure, heart rate, cluster set, traditional set