ABSTRACT

THE EFFECT OF AEROBIC EXERCISE TOWARDS CONCENTRATION OF FACULTY OF MEDICINE UNIVERSITAS AIRLANGGA STUDENTS

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Background: Aerobic exercise has been known to have great benefits to cognitive effect, however there are no consistent results in previous researches on relation between aerobic exercise and concentration. Objective: This research aims to study the effect of aerobic exercise towards concentration. Method: This study is experimental research with 36 samples divided into 2 groups: control that not do aerobic exercise, and intervention that do high intensity aerobic exercise for 75 minutes per week in 3 weeks. one week before and after intervention, the concentration of the samples tested with attention network test to assesses alerting, orienting, and conflict effect. The data are analyzed statistically. Result: Control and intervention groups obtained no significant changes in between pretest and posttest of the alerting (P: 0.895), orienting (P: 0.572) and conflict effect (P: 0.864). And the results of the pretest and posttest of control group had significant changes in the conflict effect (P: 0.019) and no significant changes in alerting (P: 0.072) and orienting (P: 0.735), and the intervention group had significant changes in alerting (P: 0.02) and conflict effect (P: 0.001) and no significant changes in orienting effect (P: 0.653). There’s no significant difference found in the comparison of the total concentration score from pretest and posttest of both control (P: 0.778) and intervention groups (P: 0.571). Conclusion: In this study, aerobic exercise doesn’t affect the concentration of students of the Faculty of Medicine Universitas Airlangga. Further research with longer duration and strict control over other factors is required.

Keywords: aerobic exercise, concentration, cognitive function.