## THE EFFECTIVENESS OF POST-WORKOUT FITNESS MASSAGE AND SPORTS MASSAGE IN CHANGING BLOOD PRESSURE, PULSE RATE, AND BREATHING FREQUENCY

## by Dr Bambang Priyonoadi, Dr Ali Satia Graha, Dr dr BM Wara Kushartanti, Dr dr Rachmah Laksmi Ambardini

## **ABSTRACT**

**Background**: Massage may decrease muscle tension, accelerate blood circulation, increase nerve conductivity, breathing frequency, pulse rate, and blood flow. Sports massage and the new massage method of Post-workout Fitness Massage may also decrease blood pressure, pulse rate, and breathing frequency to accelerate the recovery of athletes.

Objective: 1. To determine the influence of the effectiveness of the method of Post-workout Fitness Massage and sports there is the effect on massage changes changes in pulse rate, blood pressure and respiratory frequency, 2. To identify which of types of post-workout fitness massage and sports massage most effectively changing pulse rate, blood pressure, and respiratory frequency is. Method: This is a quasy Experimental research with the design of Pretest-Postest using the purposive sampling technique [1.2]. The population were 27 male students and the number of samples required was 24 with the criteria of inclusion. Preliminary data were obtained by measuring systolic blood pressure (TDS), diastolic blood pressure (TDD), pulse rate (DN), and respiratory frequency (F). Data DN were used for grouping the subject of the research into two groups by means of ordinal pairing: Group I (K1) was the group given treatment with the method of post-workout fitness massage; and Group II (K2) was the group given treatment with the sports massage. All of the samples in each group performed physical activity in the form of the high intensity activity by using circuit weight training for 60 minutes. Obtaining the data of TDS, TDD, DN, and FP were performed over 6 times. In the process of the research there were 2 participants were not able to continue the research and 4 samples with the extreme data results so that the total number of samples analyzed were 18 samples. Officers of the data was a student who had been trained by the doctors, while experts therapist (masseurs) was a professional therapist massage Energy Therapy Clinic FIK UNY. Results: The results of this study indicate that 1. Post-workout Fitness Massage and Sports Massage can reduce the systolic blood pressure of 114.72 mmHg and 118.13 mmHg, the diastolic blood pressure of 57.72 mmHg and 57.91 mmHg, while in the pulse rate the decreases were 81.82 times/min and 79.02 times/min, as well as at respiratory frequencies of 17.91 times/min and 19.46 times/ min. 2. Sports massage is more effective in reducing TDS, TDD, DN, FP (F> 0.05). Conclusion: Post-workout Fitness Massage and sports massage are effective in reducing the systolic and diastolic blood pressures, pulse rate, and respiratory frequency. Sports massage is more effective for recovery compared to the fitness massage after high physical activity.

Kata Kunci: Fitness massage, sports massage, blood pressure, pulse, respiratory frequency