

PENGARUH PROGRAM INTERVENSI MODEL *HIGH INTENSITY INTERVAL TRAINING* TERHADAP KADAR *INTERLEUKIN-6* PADA WANITA DENGAN OBESITAS

ABSTRAK

Pendahuluan: Obesitas menyebabkan terjadinya berbagai perubahan parameter fisiologis tubuh, salah satunya mediator inflamasi *Interleukin-6* (IL-6). IL-6 adalah jalur patogenesis obesitas menjadi penyakit lain, seperti sindroma metabolik. Latihan fisik yang dinilai efektif pada seseorang dengan obesitas adalah *High Intensity Interval Training* (HIIT), akan tetapi pengaruhnya terhadap kadar IL-6 masih belum jelas. **Tujuan:** mengetahui pengaruh program intervensi model HIIT pada wanita dengan obesitas terhadap kadar IL-6. **Metode:** Penelitian ini menggunakan rancangan penelitian *Quasi Experimental Pre and Post Design Without Control Group*. Subjek sebanyak 16 orang. Pemeriksaan IL-6 dilakukan sebelum dan sesudah intervensi. Pemeriksaan IL-6 menggunakan kit Elisa dengan metode *Sandwich*. Data dianalisis secara univariat dan bivariat. Analisis bivariat menggunakan *Wilcoxon Signed Rank Test*. **Hasil:** Hasil menunjukkan kadar IL-6 sebelum intervensi sebesar $7,517 \pm 8,770$ pg/ml dan setelah intervensi sebesar $2,901 \pm 1,043$ pg/ml. HIIT dapat menurunkan kadar IL-6 sebesar 4,669 pg/ml (68%) yang dinyatakan signifikan menggunakan *Wilcoxon Signed Rank Test* ($p=0,002$). **Kesimpulan:** Terdapat pengaruh program intervensi model HIIT pada wanita dengan obesitas terhadap kadar IL-6, yaitu menurunkan kadar IL-6.

Kata kunci: Obesitas, *High Intensity Interval Training*, *Interleukin-6*, HIIT, IL-6.

THE IMPACT OF HIGH INTENSITY INTERVAL TRAINING PROGRAM INTERVENTION ON INTERLEUKIN-6 LEVELS IN OBESE WOMEN

ABSTRACT

Introduction: Obesity causes various changes in physiological parameters of the body, one of which is the inflammatory mediator Interleukin-6 (IL-6). IL-6 is a pathogenesis pathway of obesity to other diseases, such as metabolic syndrome. Physical exercise that is considered effective in obese individuals is High Intensity Interval Training (HIIT), but the effect of HIIT on IL-6 levels is unclear. **Objective:** to determine the impact of HIIT program intervention in obese women on IL-6 levels. **Methods:** this study used a Quasi Experimental Pre and Post Design Without Control Group design. Subjects were 16 people. IL-6 was examined before and after intervention. IL-6 examination used ELISA kit with Sandwich method. Data were analyzed by univariate and bivariate test. Bivariate analysis was using Wilcoxon Signed Rank Test. **Results:** the results indicate that IL-6 levels before intervention was $7,517 \pm 8,770$ pg/ml and after intervention was $2,901 \pm 1,043$ pg/ml. HIIT can reduced IL-6 by 4,669 pg/ml (68%), which was significant using *Wilcoxon Signed Rank Test* ($p=0,002$). **Conclusion:** there was impact of HIIT program intervention in obese women on IL-6 levels by reduce IL-6 levels.

Keywords: Obesity, High Intensity Interval Training, Interleukin-6, HIIT, IL-6.

