

**PERBEDAAN EFEKTIVITAS *HIGH INTENSITY INTERVAL TRAINING* (HIIT)
DAN *MODERATE INTENSITY CONTINUOUS TRAINING* (MICT)
TERHADAP MASSA OTOT WANITA OBESITAS**

ABSTRAK

Pendahuluan: Obesitas dikaitkan dengan keterbatasan fungsional dalam kinerja otot dan dapat berkembang menjadi kecacatan aspek fungsional seperti mobilitas, kekuatan, dan keseimbangan postural. Latihan fisik dapat digunakan untuk menangani obesitas dan dapat meningkatkan kinerja otot. Model latihan fisik yang bisa digunakan adalah High Intensity Interval Training (HIIT) dan Moderate Intensity Continuous Training (MICT). **Tujuan:** mengetahui perubahan massa otot sebelum dan setelah intervensi (HIIT dan MICT) dan untuk mengetahui perbedaan efektivitas HIIT dan MICT dalam meningkatkan massa otot pada wanita dengan obesitas di Purwokerto. **Metode:** Penelitian ini menggunakan merupakan jenis penelitian observasional cross sectional analisis data sekunder. Subyek dibagi menjadi 2 kelompok yaitu kelompok HIIT dan MICT. Masing masing kelompok terdiri dari 15 subyek. Pengumpulan subyek dilakukan dengan metode total sampling. Setiap subyek melakukan intervensi selama 12 minggu dengan 3 sesi setiap minggu. Massa otot diukur sebelum dan setelah intervensi. **Hasil:** Hasil menunjukkan ada peningkatan massa otot pada kedua model intervensi. HIIT dapat meningkatkan massa otot sebesar $1,2 \pm 0,75$ dan MICT dapat meningkatkan massa otot sebesar $0,98 \pm 0,54$. Hasil uji t-berpasangan menunjukkan adanya peningkatan yang signifikan ($p=0,000$) pada kedua kelompok. Uji t-tidak berpasangan terhadap perubahan rerata massa otot antara kedua kelompok menunjukkan tidak adanya perbedaan yang signifikan ($p=0,341$). **Kesimpulan:** Terdapat peningkatan massa otot sebelum dan sesudah latihan baik pada latihan fisik HIIT maupun MICT. HIIT dan MICT sama efektif dalam meningkatkan massa otot.

Kata kunci: *High Intensity Interval Training* (HIIT), *Moderate Intensity Continuous Training* (MICT), Massa Otot, Obesitas.

THE DIFFERENCES OF EFFECTIVENESS OF *HIGH INTENSITY INTERVAL TRAINING (HIIT)* AND *MODERATE INTENSITY CONTINUOUS TRAINING (MICT)* ON MUSCLE MASS IN OBESITY WOMEN

ABSTRACT

Introduction: Obesity is associated with functional limitations in muscle performance and can progress to disability in functional aspects such as mobility, strength, and postural balance. Physical exercise can be used to treat obesity and can improve muscle performance. The physical exercise models that can be used are High Intensity Interval Training (HIIT) and Moderate Intensity Continuous Training (MICT). **Objective:** to determine changes in muscle mass before and after intervention (HIIT and MICT) and to determine differences in the effectiveness of HIIT and MICT in increasing muscle mass in obese women in Purwokerto. **Methods:** This study used an observational cross sectional type of secondary data analysis. Subjects were divided into 2 groups, they were HIIT and MICT groups. Each group consisted of 15 subjects. Subjects were collected using the total sampling method. Each subject did the intervention for 12 weeks with 3 sessions each week. Muscle mass was measured before and after the intervention. **Results:** there is an increase in muscle mass in both intervention models. HIIT can increase muscle mass by 1.2 ± 0.75 and MICT can increase muscle mass by 0.98 ± 0.54 . Paired t-test results show a significant increase ($p=0.000$) in both groups. The unpaired t-test on the change in mean muscle mass between the two groups show no significant difference ($p=0.341$). **Conclusion:** There is an increase in muscle mass before and after exercise both in HIIT and MICT physical exercises. HIIT and MICT have same effectivity in increasing muscle mass.

Keywords: *High Intensity Interval Training (HIIT)*, *Moderate Intensity Continuous Training (MICT)*, Muscle Mass, Obesity.