

**FAKULTAS KEDOKTERAN  
UNIVERSITAS PEMBANGUNAN NASIONAL “VETERAN” JAKARTA**

**Skripsi, Desember 2023**

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**HUBUNGAN ANTARA KADAR LEMAK TUBUH DAN *HEART RATE VARIABILITY* PADA MAHASISWA FAKULTAS KEDOKTERAN UNIVERSITAS PEMBANGUNAN NASIONAL “VETERAN” JAKARTA TAHUN 2023**

RINCIAN HALAMAN (xvii + 93 halaman, 16 tabel, 3 bagan, 2 gambar, 11 lampiran)

**ABSTRAK**

**Tujuan**

Obesitas dapat menyebabkan penyakit kardiovaskular yang dapat dilakukan skrining menggunakan *Heart Rate Variability* (HRV). Penelitian ini bertujuan untuk mengetahui hubungan kadar lemak tubuh terhadap HRV pada mahasiswa FK UPN Veteran Jakarta tahun 2023.

**Metode**

Penelitian ini merupakan penelitian kuantitatif dengan menggunakan metode analisis observasional dengan desain *cross-sectional* dan metode *stratified random sampling* dengan total sampel 57 mahasiswa yang telah memenuhi kriteria inklusi dan eksklusi. Kadar lemak dilihat berdasarkan kategori Indeks Massa Tubuh (IMT), lemak viseral, dan *Body Fat Percentages* (BFP) yang dianalisis menggunakan metode *Bioelectrical Impedance Analysis* (BIA). Analisis HRV menggunakan instrumen alat *HRV Analyzer*. Faktor perancu dalam penelitian ini yaitu tingkat stres dan ritme sirkadian dianalisis dengan kuesioner *Perceived Stress Scale-10* (PSS-10) dan *Morningness-Eveningness Questionnaire* (MEQ). Data dianalisis menggunakan uji *Chi-Square*, uji *Fisher Exact* sebagai alternatif, dan uji regresi logistik.

**Hasil**

Tidak terdapat hubungan antara IMT ( $p=1.000$ ), lemak viseral ( $p=1.000$ ), dan BFP ( $p=0.276$ ) terhadap HRV.

**Kesimpulan**

Tidak terdapat hubungan antara kadar lemak tubuh terhadap HRV.

**Daftar Pustaka** : 70 (2013-2023)

**Kata Kunci** : Obesitas, Kadar lemak tubuh, *Heart Rate Variability*, Kardiovaskular

**FACULTY OF MEDICINE  
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**Undergraduate Thesis, December 2023**

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**THE RELATIONSHIP BETWEEN BODY FAT AND HEART RATE  
VARIABILITY IN MEDICAL STUDENTS OF PEMBANGUNAN NASIONAL  
“VETERAN” JAKARTA UNIVERSITY IN 2023**

PAGE DETAIL (xvii + 93 pages, 16 tables, 3 charts, 2 pictures, 11 appendices)

### ***ABSTRACT***

#### ***Objective***

*Obesity can cause cardiovascular disease which can be screened using Heart Rate Variability (HRV). The purpose of this study is to examine the relationship between the amount of body fat and HRV in medical students at UPN Veteran Jakarta in 2023.*

#### ***Methodology***

*This study is a quantitative study with observational analytic method using cross-sectional design and stratified random sampling thus obtaining a total sample of 57 students who have met the criteria. Body fat was seen based on the categories of Body Mass Index (BMI), visceral fat, and Body Fat Percentages (BFP) which are analyzed using the Bioelectrical Impedance Analysis (BIA) method. Heart Rate Variability Analyzer used for analyzing Standard Deviation of All N-N Intervals (SDNN) HRV. Some confounding factors that are expected to affect this study are stress levels and circadian rhythm analyzed using the Perceived Stress Scale-10 (PSS-10) and Morningness-Eveningness Questionnaire (MEQ). The Chi-Square test, Fisher Exact Test as an alternative, and logistic regression test were used to examine the data.*

#### ***Results***

*There was no relationship between BMI ( $p=1.000$ ), visceral fat ( $p=1.000$ ), and BFP ( $p=0.276$ ) on HRV.*

#### ***Conclusion***

*There was no relationship between body fat and HRV.*

***Reference*** : 70 (2013-2023)

***Keywords*** : Obesity, Body fat, Heart Rate Variability, Cardiovascular