

## Hubungan Tingkat Stres dengan Persen Lemak Tubuh Mahasiswa Tingkat Akhir

Nabila Nisa Huwaidah<sup>1</sup>, Martha Ardiaria<sup>1</sup>, Lilis Wijayanti<sup>1</sup>, Binar Panunggal<sup>1</sup>

### ABSTRAK

**Latar Belakang :** Stres merupakan gangguan psikologis yang umum dialami mahasiswa, terutama pada tingkat akhir akibat tekanan akademik, seperti penyusunan tugas akhir, revisi yang berulang, dan tuntutan kelulusan. Stres kronis dapat memengaruhi sistem fisiologis, seperti aktivasi aksis hipotalamus–hipofisis-adrenal (HPA) yang meningkatkan kadar kortisol dan penyimpanan lemak tubuh. Selain stres, aktivitas fisik dan status gizi turut memengaruhi persen lemak tubuh.

**Tujuan :** Mengetahui hubungan antara tingkat stres dengan persen lemak tubuh mahasiswa tingkat akhir.

**Metode :** Penelitian ini menggunakan desain *cross-sectional*. Sampel dalam penelitian ini sebanyak 63 responden yang diambil dengan metode *purposive sampling*. Pengambilan dan pengukuran data meliputi kuesioner DASS 42 (tingkat stres), IPAQ-SF (aktivitas fisik), pengukuran antropometri (imt dan persen lemak). Analisis data tingkat stres menggunakan uji korelasi Pearson dan analisis data aktivitas fisik dan persen lemak tubuh menggunakan uji korelasi Rank-Spearman.

**Hasil :** Diketahui bahwa subjek mayoritas mengalami stres ringan (36,5%), memiliki persen lemak tubuh yang normal (54,0%), memiliki status gizi normal (65,1%), dan aktivitas fisik rendah (69,8%). Hubungan tingkat stres, status gizi, aktivitas fisik dengan persen lemak berturut-turut adalah ( $p = 0,478$ ;  $0,000$ ; dan  $0,095$ ).

**Kesimpulan :** Tingkat stres tidak berhubungan dengan persen lemak tubuh.

**Kata Kunci :** stres, persen lemak tubuh, mahasiswa, status gizi, aktivitas fisik

---

<sup>1</sup>Departemen Ilmu Gizi, Fakultas Kedokteran, Universitas Diponegoro, Semarang

Email: [nabilanisa813@gmail.com](mailto:nabilanisa813@gmail.com)

## The Correlation Between Stress Levels and Body Fat Percentage in Final-Year Students

Nabila Nisa Huwaidah<sup>1</sup>, Martha Ardiaria<sup>1</sup>, Lilis Wijayanti<sup>1</sup>, Binar Panunggal<sup>1</sup>

### ABSTRACT

**Background :** Stress is a common psychological disorder experienced by students, especially in the final-year due to academic pressures, such as the preparation of final assignments, repeated revisions, and graduation demands. Chronic stress can affect physiological systems, such as activation of the hypothalamic-pituitary-adrenal (HPA) axis which increases cortisol levels and body fat storage. In addition to stress, physical activity and nutritional status also affect body fat percent.

**Objective :** This study was conducted to measure the correlation between stress levels and body fat percentage in final-year students.

**Methods :** This study uses a cross-sectional design. The sample consists of 63 respondents, selected through purposive sampling. Data collection includes the DASS-42 questionnaire (for stress levels), IPAQ-SF (for physical activity), and anthropometric (BMI and body fat percentage). Analysis of stress level was performed using Pearson correlation and physical activity and body fat percentage used Rank-Spearman.

**Results :** The majority of participants had mild stress (36.5%), normal body fat percentage (54.0%), normal nutritional status (65.1%), and low physical activity levels (69.8%). The relationships between stress levels, nutritional status, and physical activity with body fat percentage produced the following results ( $p = 0.478$ ;  $0.000$ ; and  $0.095$ ).

**Conclusions :** There was no significant association between stress levels and body fat percentage.

**Keywords:** stress, percentage body fat, collage, nutritional status, physical activity

---

<sup>1</sup>Nutrition Science Department, Faculty of Medicine, Diponegoro University, Semarang  
Email: [nabilanisa813@gmail.com](mailto:nabilanisa813@gmail.com)