

## ABSTRACT

### THE RELATIONSHIP BETWEEN VISCERAL FAT LEVELS, NUTRITIONAL STATUS, AND CENTRAL OBESITY WITH THE INCIDENCE OF LOW BACK PAIN AMONG ONLINE MOTORCYCLE TAXI DRIVERS IN BANDAR LAMPUNG

By

RENY ARIENTA PUTRI

**Background:** Low Back Pain (LBP) is a common musculoskeletal disorder among online motorcycle taxi drivers. Individual factors, such as visceral fat levels, nutritional status, and central obesity are suspected to contribute to LBP through increased biomechanical pressure and lumbar inflammation. This study aimed to examine the relationship between visceral fat levels, nutritional status, and central obesity with LBP occurrence in online motorcycle taxi drivers in Bandar Lampung.

**Methods:** This cross-sectional study involved 100 participants selected through consecutive sampling. Data were collected via LBP diagnosis by a physician and measurements of visceral fat levels, height, weight, and waist circumference. Statistical analysis included Chi-Square and Binary Logistic Regression tests with a significance level of  $\alpha = 5\%$ .

**Result:** The study found that 46,0% of respondents experienced LBP, 10,0% had a very high visceral fat level, 36,0% were classified as obese, and 49,0% experienced central obesity. There was a significant relationship between visceral fat levels ( $p < 0,001$ ), nutritional status ( $p < 0,001$ ), central obesity ( $p < 0,001$ ) with the occurrence of LBP, and visceral fat levels were identified as the most dominant factor.

**Conclusion:** There is a significant association between visceral fat levels, nutritional status, and central obesity and LBP, with visceral fat levels being the most dominant factor.

**Keywords:** central obesity, Low Back Pain, nutritional status, online motorcycle taxi drivers, visceral fat

## ABSTRAK

### HUBUNGAN ANTARA TINGKAT LEMAK VISERAL, STATUS GIZI, DAN OBESITAS SENTRAL DENGAN KEJADIAN *LOW BACK PAIN* PADA PENGEMUDI OJEK *ONLINE* DI KOTA BANDAR LAMPUNG

Oleh

RENY ARIENTA PUTRI

**Latar Belakang:** *Low Back Pain* (LBP) merupakan gangguan muskuloskeletal yang sering terjadi pada pengemudi ojek *online*. Beberapa faktor individu seperti tingkat lemak viseral, status gizi, dan obesitas sentral diduga berkaitan dengan kejadian LBP melalui peningkatan tekanan biomekanis dan inflamasi area lumbar. Penelitian ini bertujuan untuk mengetahui hubungan tingkat lemak viseral, status gizi, dan obesitas sentral dengan kejadian LBP pada pengemudi ojek *online* di Kota Bandar Lampung.

**Metode:** Penelitian ini menggunakan desain *cross-sectional* berjumlah 100 orang yang dipilih dengan teknik *consecutive sampling*. Data diperoleh melalui diagnosis LBP oleh dokter, pengukuran tingkat lemak viseral dengan *Body Fat Analyzer*, tinggi badan, berat badan, dan lingkar perut. Analisis menggunakan uji *Chi-square* dan Regresi Logistik Biner dengan tingkat signifikansi  $\alpha = 5\%$ .

**Hasil:** Hasil penelitian menunjukkan 46,0% responden LBP, 10,0% memiliki tingkat lemak viseral sangat tinggi, 36,0% berstatus gizi gemuk, dan 49,0% mengalami obesitas sentral. Terdapat hubungan signifikan antara tingkat lemak viseral ( $p < 0,001$ ), status gizi ( $p < 0,001$ ), obesitas sentral ( $p < 0,001$ ) dengan kejadian LBP, dan tingkat lemak viseral menjadi faktor paling dominan.

**Kesimpulan:** Terdapat hubungan signifikan antara tingkat lemak viseral, status gizi, dan obesitas sentral dengan kejadian LBP, dengan tingkat lemak viseral menjadi faktor paling dominan.

**Kata kunci:** lemak viseral, *Low Back Pain*, obesitas sentral, pengemudi ojek *online*, status gizi.