

## INTISARI

Antropometri adalah studi pengukuran tubuh manusia non-invasif yang dapat digunakan untuk mengetahui distribusi lemak tubuh terkait dengan obesitas. Lingkar pinggang dan rasio lingkar pinggang-panggul merupakan metode antropometri untuk menilai obesitas sentral. Obesitas sentral dan resistensi insulin dikaitkan dengan peningkatan risiko sindrom metabolik termasuk peningkatan kadar glukosa darah puasa. Tujuan penelitian adalah untuk mengetahui korelasi antara lingkar pinggang dan rasio lingkar pinggang-panggul terhadap kadar glukosa darah puasa pada pria maupun wanita.

Jenis penelitian ini adalah observasional analitik dengan rancangan potong-lintang. Subjek penelitian adalah mahasiswa dan mahasiswi kampus III Universitas Sanata Dharma Yogyakarta yang berjumlah 128 responden dan dipilih menggunakan teknik *purposive sampling*. Pengukuran yang dilakukan meliputi pengukuran lingkar pinggang, lingkar panggul, dan kadar glukosa darah puasa. Data dianalisis dengan uji normalitas (*Kolmogorov-Smirnov*) kemudian dilakukan uji komparatif t tidak berpasangan dan *Mann-Whitney* dan analisis korelasi Spearman dengan taraf kepercayaan 95%.

Hasil penelitian menunjukkan terdapat korelasi positif yang tidak bermakna dengan kekuatan korelasi sangat lemah antara lingkar pinggang terhadap kadar glukosa darah puasa (pada pria  $r = 0,034$  ;  $p = 0,795$  dan pada wanita  $r = 0,102$  ;  $p = 0,406$ ) serta rasio lingkar pinggang-panggul terhadap kadar glukosa darah puasa pada mahasiswa dan mahasiswi kampus III Universitas Sanata Dharma Yogyakarta (pada pria  $r = 0,168$  ;  $p = 0,204$  dan pada wanita  $r = 0,014$  ;  $p = 0,909$ ).

Kata kunci: lingkar pinggang, rasio lingkar pinggang-panggul, kadar glukosa darah puasa

## ABSTRACT

Anthropometry is a non-invasive study of human body measurement which can be used to assess body fat distribution related to obesity. Waist circumference and waist-hip ratio are anthropometric methods used to assess central obesity. Central obesity and insulin resistance are related to an increase of metabolic syndrome risk, including increase of fasting blood glucose. The objective of this study is to determine the correlation between waist circumference and waist-hip ratio with fasting blood glucose levels in men and women.

This study used cross-sectional design as a part of analytical observational study. A total of 128 students both men and women from Campus III University of Sanata Dharma Yogyakarta were included purposively. Subjects were measured for waist circumference, hip circumference and blood sample was taken for fasting blood glucose levels. Data were analyzed statistically by Kolmogorov-Smirnov normality test followed by independent t-test and Mann-Whitney comparative test then Spearman correlation analysis with 95% confidence intervals.

The result shows that there were positive correlations between waist circumference and fasting blood glucose ( $r = 0,034$  ;  $p = 0,795$  and  $r = 0,102$  ;  $p = 0,402$  for men and women respectively) and between waist-hip ratio with fasting blood glucose in college students of Campus III University of Sanata Dharma Yogyakarta ( $r = 0,168$  ;  $p = 0,204$  and  $r = 0,014$  ;  $p = 0,909$  for men and women respectively). There were insignificant and very weak correlations in this study.

Keywords: waist circumference, waist-hip ratio, fasting blood glucose