Hubungan Obesitas Sentral Dengan Nilai VO2 Maks Berdasarkan Hasil Tes Kesamaptaan Jasmani A Pada Anggota Tetap Akademi Kepolisian

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ABSTRAK

Latar belakang: Anggota kepolisian dituntut memiliki kesamaptaan jasmani atau kebugaran jasmani yang prima agar dapat melaksanakan tugas dengan baik. Obesitas sentral dapat berakibat pada penurunan nilai VO2 Maks dan daya tahan kardiorespirasi yang buruk. Indikator obesitas sentral seperti lingkar pinggang (LP), rasio lingkar pinggang terhadap tinggi badan (RLPTB), dan rasio lingkar pinggang panggul (RLPP) dapat menggambarkan kondisi sebaran lemak tubuh yang terpusat di tubuh daerah abdominal.

Tujuan: Mengidentifikasi hubungan obesitas sentral (LP, RLPTB, dan RLPP) dengan nilai VO2 Maks berdasarkan hasil tes kesamaptaan jasmani A pada anggota tetap Akademi Kepolisian.

Metode: Penelitian observasional dengan desain *cross-sectional* menggunakan 94 subjek terdiri dari 49 laki-laki dan 45 perempuan yang merupakan Anggota Tetap Akademi Kepolisian (Antap Akpol) setelah dipilih melalui skrining secara *purposive sampling*. Penelitian di lakukan pada bulan Agustus 2022. Data nilai VO2 Maks dihitung menggunakan variabel hasil jarak tempuh tes kesamaptaan jasmani (TKJ) A Antap Akpol. Lingkar pinggang dan lingkar panggul diukur menggunakan *medline*, tinggi badan diukur menggunakan stadiometer. Data variabel perancu usia dan jenis kelamin diambil menggunakan kuesioner identitas subjek, persen lemak tubuh diukur menggunakan BIA Omron HBF-214, aktivitas fisik diperoleh dari kuesioner GPAQ, dan durasi tidur diperoleh menggunakan kuesioner PSQI. Analisis data menggunakan uji korelasi *Rank Spearman, Kendall Tau,* dan uji regresi linier berganda.

Hasil: Terdapat hubungan bermakna antara obesitas sentral berdasarkan indikator LP (p = 0,035; r = -0,217) dan RLPTB (p = 0,000; r = -0,542) dengan nilai VO2 Maks, sementara RLPP (p = 0,071) tidak memiliki hubungan dengan nilai VO2 Maks. Variabel yang paling berpengaruh dengan nilai VO2 Maks adalah usia, jenis kelamin, aktivitas fisik, dan RLPTB ($p < 0,05$).

Simpulan: Terdapat hubungan bermakna antara obesitas sentral berdasarkan indikator LP dan RLPTB dengan nilai VO2 Maks berdasarkan hasil TKJ A pada Antap Akpol.

Kata kunci: obesitas sentral, VO2 Maks, polisi, tes kesamaptaan jasmani

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Correlation Between Abdominal Obesity with VO2 Max Based on The Result of Kesamaptaan Jasmani A Test among Police Academy Officers

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ABSTRACT

Background: According to the duty, police officers have to maintain their physical fitness to do their job optimally. Abdominal obesity leads to decrease in VO2 Max and poorer cardiorespiratory fitness. Anthropometry indicators of abdominal obesity such as waist circumference (WC), waist-to-height ratio (WHtR), and waist-hip ratio (WHR) measure the proportion of fat stored in abdominal area.

Purpose: To identify the correlation between abdominal obesity (WC, WHtR, and WHR) with VO2 Max based on the result of Kesamaptaan Jasmani A test among police academy officers.

Methods: This study used an observational method with a cross-sectional design. A total 94 police academy officers (49 male and 45 female) were selected as subjects after going through screening using purposive sampling technique. Research was held on August 2022. VO2 Max value were calculated from the result of Kesamaptaan Jasmani A test. Waist and hip circumference were measured using measuring tape, body height was measured using stadiometer. Confounding variables for age and sex were obtained using identity questionnaire, body fat percentage using BIA Omron HBF-214, physical activity using GPAQ questionnaire, and sleep duration using PSQI questionnaire. Data were analyzed using the Rank Spearman test, Kendall Tau test, and multiple linear regression.

Result: The findings showed that there was significant correlation between abdominal obesity determined by WC (p = 0.035; r = -0.217) and WHtR (p = 0.000; r = -0.542) with VO2 Max, whereas WHR (p = 0.071) had no significant correlation with VO2 Max. Age, sex, physical activity, and WHtR were the most related variable to VO2 Max ($p < 0.05$).

Conclusion: There was significant correlation between abdominal obesity (WC and WHtR) and VO2 Max based on the result of Kesamaptaan Jasmani A test among police academy officers.

Keywords: abdominal obesity, VO2 Max, police officers, physical fitness test

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