

# Hubungan Total Asupan Serat, Protein, dan Rasio Protein Serat dengan Kadar Kolesterol Total, HDL, dan LDL pada Individu Obesitas

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## ABSTRAK

**Latar Belakang:** Obesitas merupakan permasalahan gizi kronik yang menandakan peningkatan jaringan lemak. Prevalensinya terus meningkat dan menjadi epidemi global. Kondisi ini berakibat pada dislipidemia. Faktor risiko dislipidemia pada obes ialah asupan rendah serat dan tinggi protein. **Tujuan:** Untuk mengetahui hubungan asupan serat, protein, rasio protein serat dengan kadar total kolesterol, HDL, dan LDL pada individu obesitas. **Metode:** Penelitian ini merupakan penelitian kuantitatif rancangan observasional analitik *cross sectional* dengan data sekunder dari *baseline* penelitian sebelumnya. Penelitian dilakukan di Kota Semarang bulan Maret-Juni 2024. Data inisial, jenis kelamin, berat badan, tinggi badan, lingkar pinggang, kadar kolesterol total, HDL, LDL, total asupan serat dan protein diambil dari *baseline* data yang sudah dicantumkan. Kadar kolesterol total, HDL, dan LDL dilakukan pengkategorian, IMT dihitung dengan rumus IMT. Asupan protein dibedakan menjadi hewani dan nabati dari hasil wawancara SQ-FFQ. Analisis data dilakukan secara bivariat. **Hasil:** Hubungan serat terhadap kolesterol total (std  $\beta$ : -,266; p: .553), HDL (std  $\beta$ : ,282; p: ,096), LDL (std  $\beta$ : -,013; p: ,528). Protein hewani terhadap kolesterol total (std  $\beta$ : -,130; p: ,925), HDL (std  $\beta$ : ,155; p: ,764), LDL (std  $\beta$ : -,133; p: ,040). Protein nabati terhadap koelsterol total (std  $\beta$ : -4,471; p: ,014), HDL (std  $\beta$ : ,593; p: ,383), LDL (std  $\beta$ : -,194; p: ,023). Rasio potein serat terhadap kolesterol total (std  $\beta$ : 1,337; p: ,100), HDL (std  $\beta$ : -,478; p: ,199), LDL (std  $\beta$ : ,143; p: <0,001). **Kesimpulan:** Hubungan yang signifikan didapati protein terhadap kolesterol total dan LDL, rasio protein serat terhadap LDL.

**Kata kunci:** Kolesterol, Obesitas, Serat, Protein, Rasio Protein Serat

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## **Correlation Intake of Fiber, Protein, and Protein Fiber Ratio to Total Cholesterol, HDL, and LDL in Obesity People**

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### **ABSTRACT**

**Background:** Obesity is a nutritional problem that indicates an increase in fat tissue. Its prevalence continues to increase and has become a global epidemic. This condition increases the risk of dyslipidemia. Another risk factor for dyslipidemia in obesity is low fiber and high protein. **Objective:** To see the relationship of fiber, protein, fiber-protein ratio to total cholesterol, HDL and LDL levels in obese individuals. **Method:** This research is a quantitative research, analytical observational plan, cross sectional with secondary data from previous basic research. The research was conducted in Semarang City in March-June 2024. Initial name, gender, weight, height, waist circumference, total cholesterol levels, HDL, LDL, total fiber and protein intake were taken from the basic data that has been included. Total cholesterol, HDL and LDL levels were categorized, BMI was calculated using the BMI formula. Protein intake was divided into animal and vegetable based on the results of the SQ-FFQ interview. Data analysis using bivariate. **Results:** The relationship fiber to total cholesterol (std  $\beta$ : -.266; p: .553), HDL (std  $\beta$ : .282; p: .096), LDL (std  $\beta$ : -.013; p: .528). Animal protein to cholesterol (std  $\beta$ : -.130; p: .925), HDL (std  $\beta$ : .155; p: .764), LDL (std  $\beta$ : -.133; p: .040). Plant base protein to total cholesterol (std  $\beta$ : -4,471; p: .014), HDL (std  $\beta$ : .593; p: .383), LDL (std  $\beta$ : -.194; p: .023). Protein fiber ratio to total cholesterol (std  $\beta$ : 1,337; p: .100), HDL (std  $\beta$ : -.478; p: .199), LDL (std  $\beta$ : .143; p: <.001). **Conclusion:** A significant relationship was found between protein to total cholesterol and LDL, the ratio of fiber protein to LDL.

**Keywords:** Cholesterol, Obesity, Fiber, Protein, Protein Fiber Ratio

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