

ABSTRACT

THE RELATIONSHIP BETWEEN FIBER INTAKE AND BODY MASS INDEX (BMI) WITH TOTAL CHOLESTEROL LEVELS IN STUDENTS OF BIOLOGY DEPARTMENT UNIVERSITY OF LAMPUNG

By

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Background : Total cholesterol levels in body play an important role in the process of degenerative diseases. Total cholesterol levels are affected by age, intake of fiber, fat, carbohydrates and protein, physical activity and body mass index. This study aimed to determine the relationship between fiber intake and body mass index (BMI) with total cholesterol levels in students of Biology Department University of Lampung.

Method : This study used analytic-correlative research method with cross sectional approach. Sampling was taken by disproportionate stratified random sampling and obtained 43 respondents, aged 18-22 years. This research was conducted on November 2017 in Biology Department of Mathematics and Sains, Faculty University of Lampung.

Results : The results showed that the average intake of fiber was 4,20 grams/day; the average of body mass index was 21,719; the average of total cholesterol levels was 180,4 mg/dl. Results showed significant relationship between fiber intake and total cholesterol levels with medium correlation ($r=-0,470$, $p = 0,001$) and significant relationship between body mass index and total cholesterol levels with medium correlation ($r=0,510$ $p =0,000$).

Conclusion : There was relationship between fiber intake and body mass index (BMI) with total cholesterol levels in students of Biology Department University of Lampung.

Keyword: fiber intake, body mass index, total cholesterol levels

ABSTRAK

HUBUNGAN ASUPAN SERAT DAN INDEKS MASA TUBUH (IMT) DENGAN KADAR KOLESTEROL TOTAL PADA MAHASISWA JURUSAN BIOLOGI UNIVERSITAS LAMPUNG

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Latar belakang : Kadar kolesterol total dalam tubuh berperan penting dalam proses terbentuknya penyakit degeneratif. Kadar kolesterol total dipengaruhi oleh usia, asupan serat, lemak, karbohidrat, protein, aktifitas fisik dan indeks masa tubuh. Penelitian ini bertujuan untuk mengetahui hubungan asupan serat dan indeks masa tubuh (IMT) dengan kadar kolesterol total pada mahasiswa Jurusan Biologi Universitas Lampung.

Metode: Penelitian ini menggunakan metode penelitian analitik-korelatif dengan pendekatan *cross sectional study*. Teknik pengambilan sampel adalah *disproportionate stratified random sampling* dan terdiri dari 43 responden usia 18-22 tahun. Penelitian dilaksanakan pada November 2017, bertempat di Jurusan Biologi Fakultas Matematika dan IPA Universitas Lampung.

Hasil : Hasil penelitian menunjukkan bahwa rata-rata asupan serat responden adalah 4,20 gram/hari; rata-rata indeks masa tubuh 21,719; rata-rata kadar kolesterol total 180,4 mg/dl. Terdapat hubungan yang signifikan antara asupan serat dan kadar kolesterol total dengan korelasi sedang ($r=-0,470$, $p = 0,001$). Terdapat hubungan yang signifikan antara indeks masa tubuh and kadar kolesterol total dengan korelasi sedang ($r=0,510$, $p =0,000$).

Simpulan : Terdapat hubungan antara asupan serat dan indeks masa tubuh (IMT) dengan kadar kolesterol total pada mahasiswa Jurusan Biologi di Fakultas Matematika dan Ilmu Pengetahuan Alam Universitas Lampung.

Kata kunci : asupan serat, indeks masa tubuh, kadar kolesterol total