

HUBUNGAN ASUPAN ZAT GIZI MAKRO, KONSUMSI BUAH DAN SAYUR, PERSEN LEMAK TUBUH, DAN STATUS GIZI TERHADAP USIA *MENARCHE* DI SDN 04 MALAKA SARI JAKARTA DAN SDN 01 CIPINANG MUARA JAKARTA

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Abstrak

Menstruasi pertama atau *menarche* merupakan salah satu tahapan dalam proses pubertas pada anak perempuan yang menunjukkan sistem reproduksi telah berfungsi dan memasuki masa kematangan reproduksi. *Menarche* dini memiliki risiko meningkatkan masalah kesehatan pada masa mendatang. Penelitian ini bertujuan mengeksplorasi keterkaitan berbagai faktor, yaitu asupan zat gizi makro, konsumsi buah dan sayur, persen lemak tubuh, serta status gizi, terhadap usia terjadinya *menarche* pada siswi berusia 9 – 12 tahun di SDN 04 Malaka Sari dan SDN 01 Cipinang Muara. Pada penelitian ini menggunakan desain *cross-sectional* dengan melibatkan 110 responden yang dipilih menggunakan teknik *purposive sampling*. Pengumpulan data meliputi asupan zat gizi makro melalui *food recall 2x24 hours*, konsumsi buah dan sayur menggunakan *Food Frequency Questionnaire* (FFQ), persen lemak tubuh diukur menggunakan *Bioelectrical Impedance Analysis* (BIA), sedangkan penentuan status gizi berdasarkan Indeks Massa Tubuh menurut Umur (IMT/U). Selanjutnya, data dianalisis secara bivariat menggunakan *chi-square*. Hasil penelitian menunjukkan sebanyak 41 responden (37,3%) mengalami *menarche* dini. Terdapat hubungan yang bermakna antara asupan energi ($p = 0,001$), asupan protein ($p = 0,000$), persen lemak tubuh ($p = 0,000$), dan status gizi ($p = 0,000$) dengan usia *menarche*. Tidak terdapat hubungan antara asupan lemak ($p = 0,523$), asupan karbohidrat ($p = 0,627$), konsumsi buah ($p = 0,985$), dan konsumsi sayur ($p = 0,257$) dengan usia *menarche*. Edukasi gizi seimbang dan pemantauan status gizi perlu dilakukan untuk mendukung pertumbuhan dan perkembangan yang optimal.

Kata kunci: Usia *Menarche*, Zat Gizi Makro, Konsumsi Buah dan Sayur, Persen Lemak Tubuh, Status Gizi.

***THE ASSOCIATION BETWEEN MACRONUTRIENT INTAKE,
FRUIT AND VEGETABLE CONSUMPTION, BODY FAT
PERCENTAGE, AND NUTRITIONAL STATUS WITH AGE AT
MENARCHE AMONG FEMALE STUDENTS AT SDN 04
MALAKA SARI JAKARTA AND SDN 01 CIPINANG MUARA
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Abstract

Menarche refers to a girl's first period, signaling that her reproductive system has matured. A range of factors can affect the age at menarche occurs, including macronutrient intake, fruit and vegetable consumption, body fat percentage, and nutritional status. Experiencing menarche at an early age is linked to a higher risk of long term health complications. Consequently, this study sought to examine the relationship between macronutrient intake, fruit and vegetable consumption, body fat percentage, nutritional status, and age at menarche among girls aged 9–12 years at SDN 04 Malaka Sari and SDN 01 Cipinang Muara. This study employed a Cross-Sectional design involving 110 respondents selected using purposive sampling. Data on macronutrient intake were collected using two non-consecutive 24-hour food recalls. Food types and fruit and vegetable consumption was evaluated using a Food Frequency Questionnaire (FFQ). Body fat percentage was determined via Bioelectrical Impedance Analysis (BIA), while nutritional status was assessed by on Body Mass Index-for-Age (BMI-for-Age) z-scores. Data analysis was conducted using Chi-square test. The results showed that 41 respondents (37.3%) experienced early menarche. Significant associations were found between energy intake ($p = 0.001$), protein intake ($p < 0.001$), body fat percentage ($p < 0.001$), nutritional status ($p < 0.001$), and age at menarche. However, no significant associations were found between fat intake ($p = 0.523$), carbohydrate intake ($p = 0.627$), fruit consumption ($p = 0.985$), vegetable consumption ($p = 0.257$), and age at menarche. Nutrition education on balanced diets and regular monitoring of nutritional status are recommended to support optimal growth and development.

Keywords: *Age at Menarche, Macronutrient Intake, Fruit and Vegetable Consumption, Body Fat Percentage, Nutritional Status.*