

ABSTRAK

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**HUBUNGAN ASUPAN KARBOHIDRAT, LEMAK, PROTEIN DENGAN
KONSENTRASI BELAJAR SISWA SMA NEGERI 1 CIKEMBAR
KABUPATEN SUKABUMI**

Konsentrasi belajar merupakan salah satu faktor penting yang mempengaruhi keberhasilan akademik siswa. Faktor internal seperti asupan zat gizi makro, yaitu karbohidrat, lemak, dan protein, memegang peran penting dalam mendukung fungsi kognitif, termasuk kemampuan konsentrasi. Kurangnya kecukupan gizi makro dapat menyebabkan gangguan metabolisme otak dan penurunan daya fokus, terutama pada remaja sekolah menengah yang berada dalam masa pertumbuhan aktif. Penelitian ini bertujuan untuk mengetahui hubungan antara tingkat kecukupan asupan karbohidrat, lemak, dan protein dengan konsentrasi belajar pada siswa SMA Negeri 1 Cikembar, Kabupaten Sukabumi. Penelitian ini menggunakan desain analitik observasional dengan pendekatan *cross-sectional*. Sampel berjumlah 95 responden yang dipilih secara *proportionate stratified random sampling* dari siswa kelas X dan XI. Data asupan zat gizi dikumpulkan menggunakan metode *Food Recall 2x24* jam dan dianalisis menggunakan perangkat lunak *NutriSurvey*. Tingkat konsentrasi belajar diukur melalui angket berbasis skala Likert yang telah dimodifikasi dan divalidasi. Analisis bivariat dilakukan dengan uji *Chi-Square*. Hasil menunjukkan terdapat hubungan yang signifikan antara tingkat kecukupan asupan karbohidrat dengan konsentrasi belajar ($p = 0,015$), asupan lemak dengan konsentrasi belajar ($p = 0,001$), dan asupan protein dengan konsentrasi belajar ($p = 0,001$). Siswa dengan kecukupan gizi makro dalam kategori normal cenderung memiliki tingkat konsentrasi belajar yang lebih tinggi dibandingkan siswa yang kelebihan atau kekurangan asupan. Hasil ini menegaskan pentingnya pemenuhan kebutuhan gizi makro secara seimbang dalam mendukung konsentrasi belajar siswa di sekolah.

Kata kunci: Karbohidrat, Lemak, Protein, Konsentrasi Belajar, Siswa SMA

ABSTRACT

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THE RELATIONSHIP BETWEEN CARBOHYDRATE, FAT, AND PROTEIN INTAKE WITH THE CONCENTRATION OF STUDENTS STUDYING IN PUBLIC HIGH SCHOOL 1 CIKEMBAR, SUKABUMI DISTRICT

Learning concentration is one of the important factors that influence students' academic success. Internal factors such as macronutrient intake, namely carbohydrates, fats and proteins, play an important role in supporting cognitive functions, including concentration ability. Lack of adequate macronutrients can cause brain metabolic disorders and decreased focus, especially in middle school adolescents who are in a period of active growth. This study aimed to determine the relationship between the adequacy of carbohydrate, fat, and protein intake with learning concentration in students of SMA Negeri 1 Cikembar, Sukabumi Regency. This study used an observational analytic design with a cross-sectional approach. A sample of 95 respondents was selected by proportionate stratified random sampling from students in grades X and XI. Nutrient intake data were collected using the 2x24 hour Food Recall method and analyzed using NutriSurvey software. The level of learning concentration was measured through a Likert scale-based questionnaire that had been modified and validated. Bivariate analysis was performed using the Chi-Square test. The results showed that there was a significant relationship between the level of adequacy of carbohydrate intake with learning concentration ($p = 0.015$), fat intake with learning concentration ($p = 0.001$), and protein intake with learning concentration ($p = 0.001$). Students with macronutrient adequacy in the normal category tend to have higher levels of learning concentration than students with excess or deficient intake. This result confirms the importance of fulfilling macronutrient needs in a balanced manner in supporting students' learning concentration at school.

Keywords: Carbohydrate, Fat, Protein, Learning Concentration, High School Students