

The Association Between Macronutrient Intake Levels, Ultra-Processed Food Consumption Habits, and Sleep Duration with Obesity Among Students of Politeknik Negeri Jember. Supervisor: Alinea Dwi Elisanti, S.KM., M.Kes

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ABSTRACT

Obesity is a nutritional problem caused by excessive body fat accumulation, influenced by an imbalance between energy intake and expenditure. Factors associated with obesity in college students include macronutrient intake, Ultra-Processed Food (UPF) consumption, and sleep duration. This study aimed to analyze the relationship between macronutrient intake, Ultra-Processed Food (UPF) consumption, and sleep duration with obesity in students at Jember State Polytechnic. This study used a cross-sectional design with 121 students. Data on macronutrient intake were obtained through a 24-hour food recall, UPF consumption using the SQ-FFQ, sleep duration using a questionnaire, and obesity was measured using body composition and height. Data were analyzed using the Chi-Square test. The results showed a relationship between energy, protein, fat, and carbohydrate intake, as well as ultra-processed food consumption, and obesity ($p=0.000$). Sleep duration was not associated with obesity ($p=0.172$). The study concluded that macronutrient intake and ultra-processed food (UPF) consumption were associated with obesity, while sleep duration was not significantly associated. Future research is recommended to consider other factors such as physical activity, genetics, and stress, and to use multivariate analysis to determine the dominant factors contributing to obesity.

Keywords: *macronutrient intake, ultra-processed food, sleep duration, obesity, students*