

***The Relationship between Stress Levels and Fat Intake on Fasting Blood Sugar
Levels in Students of Jember State Polytechnic***

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ABSTRACT

Stress levels and fat intake are factors that can affect fasting blood sugar levels in students. Busy academic activities often cause students to experience stress and irregular eating patterns, potentially affecting the body's metabolic conditions. This study aims to determine the relationship between stress levels and fat intake on fasting blood sugar levels in students of Jember State Polytechnic. This study used an observational analytical design with a cross-sectional approach. The study was conducted at Jember State Polytechnic in April 2026 with a sample of 103 students selected according to inclusion and exclusion criteria. Stress level data were obtained using the Perceived Stress Scale (PSS-10) questionnaire, fat intake data were obtained through two 24-hour food recalls, while fasting blood sugar levels were examined directly. Data analysis was performed univariately and bivariately using the Spearman Rank test using SPSS 26 statistical analysis. The results showed no significant relationship between stress levels and fasting blood sugar levels ($p = 0.256$) or between fat intake and fasting blood sugar levels ($p = 0.164$) in students of Jember State Polytechnic. The conclusion of this study indicates that stress levels and fat intake were not significantly associated with fasting blood sugar levels in students at Jember State Polytechnic.

Keywords: Fasting Blood Sugar Level, Fat Intake, Stress Level, Students