

GENDER, DIET, AND METABOLIC SYNDROME IN ADOLESCENTS IN MALANG, EAST JAVA

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ABSTRACT

BACKGROUND: Metabolic syndrome is a set of symptom causing degenerative disease. Metabolic syndrome is assessed based on individual body mass index, waist circumference, blood pressure, triglyceride level, high density lipoprotein level, and fasting blood sugar level. People with overweight and obesity had an increased risk of metabolic syndrome. This study aimed to examine the relationship between gender, diet, and metabolic syndrome, in adolescents.

SUBJECT AND METHODS: This was a cross sectional study conducted in Malang, East Java. A sample of 227 adolescents was selected from several high school in Malang. The dependent variable was metabolic syndrome. The independent variables were gender and diet, which included energy, carbohydrate, protein, and fat intake. The data were analyzed using linear regression.

RESULT: There were positive and statistically significant relationships between metabolic syndrome and energy intake ($b=0.01$; $95\%CI=0.009$ to 0.02 ; $p=0.026$); carbohydrates intake ($b=0.02$, $95\%CI=0.01$ to 0.04 ; $p=0.012$); protein intake ($b=0.07$; $95\%CI=0.03$ to 0.09 ; $p=0.010$); fat intake ($b=0.06$; $95\%CI=0.04$ to 0.12 ; $p=0.002$), gender ($b=1.81$; $95\%CI=0.08$ to 3.52 ; $p=0.039$).

CONCLUSION: Diet and gender are risk factors for metabolic syndrome.

Keywords: metabolic syndrome, gender, diet