

# FACTORS ASSOCIATED THE OCCURANCE OF HYPERTENSION IN HIGH SCHOOL STUDENTS

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## ABSTRACT

**Background:** Risk factors in cardiovascular disease such as hypertension have been increasingly prevalent among adolescents and follow the growing trend of the cases of obesity, physical inactivity, and inadequate nutrition intake, and lack of quality of sleep. However, prevention and detection of hypertension among adolescent are still lacking. This study aimed to examine factors associated with hypertension among high school students.

**Subjects and Method:** This was a cross sectional study. It was carried out in Bantul, Yogyakarta, from April to May 2019. A sample of 200 adolescents aged 15-19 years old was selected by probability sampling. The dependent variable was hypertension. The independent variables were sex, genetic factor, obesity, dietary intake, sleep duration, stress, and money pocket. Blood pressure was measured by sphygmomanometer. Body weight was measured by weight scale. Body height was measured by microtoise. Stress was measured by perceived stress scale. The other variables were collected by questionnaire. The data were analyzed by a multiple logistic regression.

**Results:** The risk of hypertension among adolescents aged 15-19 years old increased with male ( $b = 1.56$ ; 95% CI= 0.35 to 2.76;  $p = 0.011$ ), history of hypertension in family ( $b = 1.65$ ; 95% CI= 0.44 to 2.85;  $p = 0.007$ ), obesity ( $b = 1.89$ ; 95% CI= 0.73 to 3.05;  $p = 0.001$ ), poor dietary intake ( $b = 1.25$ ; 95% CI= 0.07 to 2.44;  $p = 0.037$ ), short sleep duration ( $b = 1.81$ ; 95% CI= 0.63 to 2.99;  $p = 0.003$ ), high stress ( $b = 3.06$ ; 95% CI= 1.66 to 4.46;  $p < 0.001$ ), and high money pocket per month ( $b = 1.67$ ; 95% CI= 0.43 to 2.91;  $p = 0.008$ ).

**Conclusion:** The risk of hypertension among adolescent increases with male, history of hypertension in family, obesity, poor dietary intake, short sleep duration, high stress, and high money pocket.

**Keywords:** hypertension, stress, sleep duration, money pocket, adolescents

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