PATH ANALYSIS ON THE DETERMINANTS OF HYPERTENSION IN WOMEN IN SRAGEN, CENTRAL JAVA

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ABSTRACT

Background: Hypertension is an important risk factor for cardiovascular disease in women but is often underestimated and undiagnosed. There is an ongoing misperception that women are at a lower risk of cardiovascular disease than men. The purpose of this study was to examine determinants of hypertension in women in Sragen, Central Java using path analysis model.

Subjects and Method: A case control study was carried out in Sragen, Central Java, from September 25 to November 25, 2018. A sample of 200 women was selected for this study by fixed disease sampling. The dependent variable was hypertension. The independent variables were age, BMI, history of hypertension, stress, smoking, physical activity, consumption, and cholesterol level. Data on blood pressure was measured by sphygmomanometer. The other data were collected by questionnaire. The data were analyzed by path analysis.

Results: The risk of hypertension in women was directly and positively affected by smoking ($b = 3.52$; 95% CI = 1.00 to 6.05; $p = 0.006$), age < 20 or ≥ 35 years ($b = 1.25$; 95% CI = 0.30 to 2.20; $p = 0.010$), high stress ($b = 1.79$; 95% CI = 0.63 to 2.96; $p = 0.003$), high salt consumption ($b = 2.49$; 95% CI = 0.25 to 4.73; $p = 0.029$), high cholesterol level ($b = 1.78$; 95% CI = 0.68 to 2.89; $p = 0.001$), history of hypertension ($b = 1.41$; 95% CI = 0.33 to 2.50; $p = 0.010$), and BMI ≥ 25 ($b = 1.14$; 95% CI = 0.17 to 2.11; $p = 0.020$). The risk of hypertension was directly and negatively affected by high physical activity ($b = -2.00$; 95% CI = -3.09 to -0.92; $p < 0.001$). It was indirectly affected by physical activity and stress.

Conclusion: The risk of hypertension in women is directly and positively affected by smoking, age, stress, salt consumption, high cholesterol level, history of hypertension, and BMI ≥ 25 . The risk of hypertension in women decreases with high physical activity. It is indirectly affected by physical activity and stress.

Keywords: hypertension, determinants, women, path analysis

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