

Abstract

Objective: The purpose of this study was to determine the prevalence rate of prehypertension and to compare the differences in demographic factors, anthropometric measurements, lifestyles and metabolic profiles between normotensive and prehypertensive individuals.

Design: Data were based on the Nutrition and Health Survey in Taiwan (NAHSIT), a cross-sectional survey that adopted a multi-stage, stratified clustering sampling scheme. The data collection period was from 1 January 1993 to 31 December 1996.

Methods: This study was a secondary analysis of data previously collected. Data from 1039 men and 1186 women, aged 18-96 years, were analyzed.

Results: Approximately 34% of Taiwanese adults had prehypertension. The prevalence rate of prehypertension was higher among men (36%) than women (32%). In univariable logistic analysis, sex, age group, age, waist-hip ratio (WHR) group, body mass index (BMI) group, waist circumference, blood sugar, triglyceride, high-density lipoprotein cholesterol (HDL), low-density lipoprotein cholesterol (LDL), cholesterol/HDL and smoking status were significantly associated with prehypertension status. Multivariable logistic regression revealed that age [odds ratio (OR) = 1.014, 95% confidence interval (CI) = 1.004-1.0249] and BMI (OR = 1.106, 95% CI = 1.051-1.165) were the determinants of prehypertension status in men. For women, age (OR = 1.033, 95% CI = 1.022-1.044), waist circumference (OR = 1.031, 95% CI = 1.012-1.051) and triglyceride (OR = 1.003, 95% CI = 1.000-1.005) were the determinants of prehypertension.

Conclusions: This study underscores the importance of general obesity and central obesity as risk factors for prehypertension in the Taiwanese adult population. These two indices of obesity have different impacts on men and women.