

## Prevalence and Risk Factors Associated with Nutrition Related Non-Communicable Diseases in a Cohort of Males in the Central Province of Sri Lanka

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**Abstract :** There is mounting evidence to the effect that dietary and lifestyle changes affect the incidence of non-communicable diseases (NCDs). This study was conducted to investigate the association of diet, physical activity, smoking, alcohol consumption and duration of sleep with overweight, obesity, hypertension and diabetes in a cohort of males from the Central Province of Sri Lanka. A total of 2694 individuals aged between 17 - 68 years (Mean = 31) were included in the study. Body Mass Index cutoff values for Asians were used to categorize the participants as normal, overweight and obese. The dietary data were collected using a food frequency questionnaire [FFQ] and data on the level of physical activity, smoking, alcohol consumption and sleeping hours were obtained using a self-administered validated questionnaire. Systolic and diastolic blood pressure, random blood glucose levels were measured to determine the incidence of hypertension and diabetes. Among the individuals, the prevalence of overweight and obesity were 34% and 16.4% respectively. Approximately 37% of the participants suffered from hypertension. Overweight and obesity were associated with older age men ( $P < 0.0001$ ), frequency of smoking ( $P = 0.0434$ ), alcohol consumption level ( $P = 0.0287$ ) and the quantity of lipid intake ( $P = 0.0081$ ). Consumption of fish ( $P = 0.6983$ ) and salty snacks ( $P = 0.8327$ ), sleeping hours ( $P = 0.6847$ ) and the level of physical activity were not significantly ( $P = 0.3301$ ) associated with the incidence of overweight and obesity. Based on the fitted model, only age was significantly associated with hypertension ( $P < 0.001$ ). Further, age ( $P < 0.0001$ ), sleeping hours ( $P = 0.0953$ ) and consumption of fatty foods ( $P = 0.0930$ ) were significantly associated with diabetes. Age was associated with higher odds of pre diabetes (OR:1.089;95% CI:1.053,1.127) and diabetes (OR:1.077;95% CI:1.055,1.1) whereas 7-8 hrs. of sleep per day was associated with lesser odds of diabetes (OR:0.403;95% CI:0.184,0.884). High prevalence of overweight, obesity and hypertension in working-age males is a threatening sign for this area. As this population ages in the future and urbanization continues, the prevalence of above risk factors will likely to escalate.

**Keywords :** age, males, non-communicable diseases, obesity

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