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PREVALENCE OF CARDIOVASCULAR RISK FACTORS AND ITS DIFFERENCES BETWEEN GENDERS IN A PUBLIC UNIVERSITY

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Non-communicable diseases (NCDs) are one of the important determinants that are associated with longevity of human life. Among this group of diseases, cardiovascular disease (CVD) is one of the leading global causes of death, accounting for 17.3 million deaths per year; this figure is expected to reach 23.6 million by 2030 (Mozaffarian *et al*., 2015). It is also the main cause of disability and premature death in both men and women (Appelman *et al*., 2015).

The CVD risks for men and women are the same, but there may be gender differences in the prevalence of risk factors. In men, LDL- cholesterol levels usually increase with age and HDL-cholesterol levels decrease with age. However, such trends are not reflected by women, leading to a gradual, more or less 10mg/dL difference of HDL between genders (Kreisberg & Kasim, 1987). Atherogenic index of plasma (AIP) is defined as logarithm [log] of the ratio of plasma concentration of TG to HDL-C, and is positively correlated with CVDs risks. AIP is the best determinant for fractionated esterification rate of HDL-C and thus a better predictor of CVDs risks than other previously used lipid parameters (Dobiásová & Frohlich, 2001; Dobiásová *et al*., 2005).

It is generally assumed that employed people are more active and healthier than general population; however, recent reports have emphasized that the nature of the job and its environment can influence the mental and physical health of employees (Freak-Poli *et al*., 2010). An estimated 35% of deaths occur in individuals aged less than 60 years, which is the main demographic of the working population of Malaysia (Institute for Public Health, 2015).

This cross-sectional study was carried out among staff of Universiti Malaysia Sarawak (UNIMAS) from October 2016 to April 2017. All respondents who fulfilled the inclusion criteria (no current acute illness, no known history of diabetes mellitus, hypertension, heart disease, liver disease and renal disease) were selected. Those who were taking lipid lowering drugs were excluded from the study. The study was approved by the Medical Ethical Committee of UNIMAS [UNIMAS/NC-21.02/03-02 Jld. 2 (22)]. All respondents were brief and signed informed consent. Sample size was calculated using EpiInfo (version 3), based on sampling frame of 1469, prevalence of overweight and obesity=53.1% (Wan Nazaimoon *et al*., 2011), confidence level of 95%, attrition rate of 10%, estimated minimum sample size needed is 335.

Blood samples were collected from all respondents after 10–12 hours fasting. A private laboratory was engaged in assisting in the blood collection and carry out the respective test. According to the Malaysian clinical practice guidelines on management of dyslipidemia (Academy of medicine of Malaysia, 2011), hypercholesterolemia is defined as total cholesterol of more than 6.3 mmol/L, high LDL- cholesterol is defined as more than 4.1 mmol/L, low HDL-cholesterol is classified as less than 1 mmol/L for

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