

Abstract

This particular research topic was chosen amidst of all other health related topics in view of its significance and its increasing trend of prevalence of type 2 diabetes mellitus in Malaysia. The rise in T2DM is largely attributed to the epidemic of obesity together with sedentary lifestyle as well as unhealthy dietary habit. National Health and Morbidity Survey (NHMS) 2011 has shown that the prevalence of diabetes in Malaysia has increased 31 per cent in the space of just five years, from 11.6 per cent in 2006 to the current 15.2 per cent. A descriptive cross-sectional study was carried out involving any consenting adult participants who satisfied the eligibility criteria of the study via random sampling in *Klinik Kesihatan Mak Mandin*. The sample size obtained was 300 respondents. Majority of participants were categorized into high risk group (74.7%) in developing T2DM. High risk group stratified according to gender and race reported that male (n=168, 72.6%) and female (n=132, 77.3%); whereas for race highest prevalence was Indian (n=152, 76%), followed by Malay (n=100, 75%) and Chinese (n=34, 70.8%). Subsequently, high risk group based on age group showed that 55-64 years (n=133, 95.7%) had highest prevalence. The data obtained was interpreted using SPSS system. Spearman correlation and multiple linear regression analysis showed statistically significant association of risk factors and total risk score. It also showed internal consistency of 0.78 % for reliability test. In the present study it was observed that advanced age, BMI, waist circumference, physical activity, dietary pattern and family history of diabetes were highly associated risk factors for T2DM. The baseline data of the present study regarding the risk of developing T2DM within 10 years is unarguably high among the study participants in Penang state. Public health strategies are required urgently in order to prevent or delay onset of T2DM.