

A03 Association of dietary glycemic index and dietary glycemic load with body fat among aboriginal children in Negeri Sembilan

Grace Chieng Wei Ni¹, Vaidehi Ulaganathan¹, Silambarasi Kuralneethi², Eng Zen Yang Eddie¹, Lim Lih Shiow¹, Tay Jia Ling¹, Divanirsh Devindran¹, Tan Lih Xuan¹ and Oeh Zhe Yee¹

¹Faculty of Applied Science, UCSI University, UCSI Heights, Cheras, Wilayah Persekutuan Kuala Lumpur, Malaysia

²Management and Science University, Shah Alam, Selangor Darul Ehsan, Malaysia

Foods with high glycemic index and high glycemic load absorbed faster by our body and resulted in high glycemic response, which promoted fat oxidation and higher fat storage. The objective of this study was to determine the association between dietary glycemic index and dietary glycemic load in relation to body composition measures of aboriginal children in Negeri Sembilan. This was a cross-sectional study conducted in three Aboriginal primary schools in Negeri Sembilan which involved 286 Aboriginal children. Semi-quantitative food frequency questionnaire was used to assess their food consumption. DietPLUS software was used to obtain GI and GL of foods and all the data was analysed using IBM SPSS Statistics software. The prevalence of obesity was 21.5%. The prevalence of obesity was higher among the children aged 10-12 years old compared to 7-9 years old (86.1% and 13.9%; $\chi^2=0.072$, $p=0.003$). The proportion of high GI (Q4) was high among employed aborigines' parents (60% and 40%; $\chi^2=9.970$, $p=0.019$). There were significant positive but weak correlation between body fat percentage and total glycemic index ($r=0.181$, $p=0.032$) and total glycemic load ($r=0.167$, $p=0.047$) of fruit group. Based on the data analysis, dietary advocations should concentrate on enhancing intakes of fruits with low GI and GL in order to prevent the accumulation of body fat.