Body fat percentage and level of aerobic capacity among students from upper primary school.

ABSTRACT

The rising standard of living in Malaysia has seen changes to its population. Obesity and other diseases of wealth are appearing in younger and younger people, resulting in the need for sports or exercise to stay fit and healthy. Studies have shown an inverse relationship between body fat percentage and aerobic capacity in children (Coleman et al., 2004). However, from the general studies, little is known specifically about Chinese primary school children. Therefore, this research aims to study the body fat and aerobic capacity of Chinese primary school children in Kajang, as possible representative of the national population. It will also ascertain whether there is any gender bias in the relationship. Two hundred and forty students were studied, from Years 4 and 5, equally divided between the sexes. The body fat percentage was determined using the skinfold method on the triceps and calf. After the fat measurement, the subjects were asked to perform the PACER bleep test to assess their aerobic capacity. The boys were found to be significantly superior in aerobic capacity ($t = 1.35$, $p < 0.18$) despite having higher body fiat. There was a low negative correlation between body fat and aerobic capacity ($r = -0.28$, $n = 240$, $p < 0.01$) among the children which was highly significant because of the large number of samples. In conclusion, 27.50% of the subjects were founds to have moderately high to very high percentage of body fat confirming the need to exercise to stay fit and healthy among this age group, especially among the boys.

Keyword: Body fat; Aerobic capacity; Children; Primary school; Malaysia