This is the published version


Available from Deakin Research Online

http://hdl.handle.net/10536/DRO/DU:30065686

Reproduced with the kind permission of the copyright owner

Copyright: 2006, Australasian Society for Human Biology
Causes of childhood obesity in Malaysia: Potential interaction of food availability, children’s lifestyle choices and eating behaviour

S. Kamarzaman, N. Bruce (University of Western Australia, Australia), kamars01@student.uwa.edu.au, nbruce@anhb.uwa.edu.au

Childhood obesity has become a global crisis, now evident in developing as well as affluent countries. In Malaysia, the prevalence of childhood obesity is rising with the highest rates among the Malays. This country has undergone a transition from undernutrition to overnutrition within a period of 20 years.

Here, we review the actual changes in prevalence of obesity among Malaysian children, consider the possible causes, generate a theoretical model as a basis for future field studies and briefly outline a proposed investigation. The working model, designed to best fit Malaysian conditions is that: children’s weight status will be mainly determined by food intake rather than exercise status. Food intake will be a function of food availability (home food and away-from-home food) and the child’s eating choice. Eating choice is predicted to be a function of pocket money, family, siblings, schools, media, peers and psychological factors. Affecting both food availability and eating choice will be socio-cultural factors including urbanization, ethnicity, family structure, socio-economic status and socio-educational environment. The interaction of all these factors will then explain how children decide on their food, what influences their decisions and how their decisions affect their body weight.

The model will be tested by examining up to 1500 primary school children from both higher and lower socio-economic status schools: data will include anthropometric measures and interview/questionnaires delivered to children and parents. The outcome of the project is expected to assist government, private health sectors and parents to improve the nutritional status of our young generation.

It’s not my fault I had an affair: The association between early psychosocial stress and extra-pair copulations

N. Koehler, J. Chisholm (University of Western Australia, Australia)

Cheating on a current mate, known as an extra-pair copulation (EPC), is considered unacceptable by most individuals. Nonetheless a large number of individuals still engage in such risky sexual behaviours. Because individuals with high, as opposed to low, levels of early psychosocial stress are more inclined to partake in risky activities and are more likely to be insecurely attached, the aim of
the present study was to test the prediction that individuals who engage in EPCs may have higher levels of early psychosocial stress than those that do not. Two types of EPC relationships were examined: EPCs (self), having sex with someone other than one’s current mate, and EPCs (other) having sex with someone who is already in a relationship with someone else. In a sample of 229 women and 161 men, significantly higher levels of early psychosocial stress were found amongst those that reported at least one EPC (self) than those that reported none. Furthermore, the more EPC (self) relationships men, but not women, reported, the higher their early psychosocial stress levels. Early psychosocial stress levels did not significantly differ between those that did and did not report an EPC (other) relationship. A possibility of why early psychosocial stress was higher in individuals engaging in EPCs (self), but not EPCs (other), will be discussed.

The relative cost of the bent–hip–bent–knee gait is reduced in water

A.V. Kuliukas (The University of Western Australia, Australia), akuliukas@anhb.uwa.edu.au

The debate about how early hominid bipeds might have moved can be characterised as two conflicting hypotheses: One is that they moved like we do, in a fully upright human-like (FUHL) gait; the other that they moved with a bent–hip bent–knee (BHBK) gait. Proponents of the former argue that BHBK is too costly (about 60% more) and heat-producing. However, all of the models supporting this view to date have been based on the assumption that this bipedalism would have occurred largely on land.

Here, I report the results of my study which show that the energy cost differential of BHBK gaits is reduced in water. The greater the knee flexion and the deeper the water, the more the cost was reduced. At low speeds (around 0.3 m/s), with a 50° knee flexion and in deep water (sternum depth), the extra cost of BHBK gait was essentially eliminated. Furthermore, it was clear from the results that highly non-optimal gaits, involving degrees of knee flexion greater than 70°, in chest deep water, would actually be more efficient in water than on land at low speeds.

As the palaeohabitats of some early hominids are dominated by nearby wetlands and that all four great ape species are perhaps most predictably bipedal in shallow water, it is argued that this finding has significant implications in understanding the causal factors of hominid bipedalism.