ICCN Poster Presentations

Obesity

Food intake and physical activity patterns of obese children in primary schools in Kuching, Sarawak, Malaysia

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The purpose of this study is to determine the food intake patterns and physical activities among Chinese obese children in primary schools in Kuching, Sarawak, Malaysia. In this study, 60 obese school children were selected, 36 of them were males and 24 were females. The ages of the students were between 10 and 11 years old.This study was a cross-sectional study. All of the respondents were measured anthropometrically (height and weight) and were interviewed using a questionnaire, which included questions on socio economic status, 24-hour dietary recall (3 days), food frequency patterns (FFQ), and their daily physical activities. Data were analyzed using the SPSS computer software version 10.0. The results of this study showed that the respondents' heights ranged between 150cm to 159.9cm while their weights ranged between 60kg and 69.9kg. Their mean Body Mass Index was 27.5 + 3.2kg/m. Majority (83.3%) of the respondents came from families with the family size of 5 to 8 persons, with the number of siblings of 3-4 persons. Most of the respondents' fathers were working in the private sectors while their mothers were mostly housewives. The majority of the subjects came from middle-income families with an average monthly income of RM2,500. From this study, the daily calorie intake of the subjects were found to be very low (mean of 1299.17 + 385.84) while their energy expenditure was high (mean of 1855.11 + 267.6). Thus a mean negative energy balance (-572.22) was obtained. However, from other dietary data, the general nutrient intakes of the subjects were found to be unsatisfactory. Food habits like skipping meals, late night supper, eating snacks while watching TV are practiced by many respondents. The Pearson Correlation Tests showed significant relationships between socioeconomic status with BMI ($P<0.05$) and total energy expenditure with BMI ($P<0.05$). In conclusion, these obese children who came mainly from middle-income families, are quite active physically. However their overall intake pattern are unsatisfactory and this contribute to their overweight problems.

A randomised controlled trial of 4 different commercial weight loss programmes in the UK in obese adults: body composition changes over 6 months

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The growing rise in obesity and the search for solutions has led to an increase in the number of commercial weight loss programmes with differing approaches. However there is limited information available by which their efficacy has been compared in controlled studies. The 4 diets tested in this study were chosen to represent different approaches. These were the Slim-Fast Plan (a meal replacement approach), WeightWatchers Pure Points Programme (an energy controlled diet with weekly group meetings), Dr Atkins' New Diet Revolution (a self-monitored low carbohydrate eating plan) and Rosemary Conley's "Eat Yourself Slim" Diet & Fitness Plan (a low fat diet and a weekly group exercise class). The primary outcome measure was percentage of fat loss over 24 weeks, measured using dual energy x-ray absorptiometry. A total of 293 healthy people entered the randomisation process: 79 (27%) men and 214 (73%) women with an average body mass index of 31.7 kg/m^2 (range 27-38) and average age of 40.3 years. The results indicated that all the diets tested were effective and did produce significant weight and body fat loss compared to controls. On average men lost 9.12 kg (23% of initial body fat) and women 5.2 kg (16% of initial body fat). However, there was considerable variation in body fat loss within each diet group. This led to the average differences between the diets being quite small and not significant. No attempt was made to standardise energy intake across the groups and therefore the effects seen are due to the subjects own interpretation and compliance with the diet plan they were given. This study demonstrates that loss of body fat is possible using a variety of commercially available strategies, including the Atkins diet. However, the range of fat loss demonstrates that some subjects actually lost very little fat and some a great deal. This indicates that not every approach will suit everyone equally. If commercial weight loss programmes are to be used effectively more information is needed to direct individuals to the best strategy to suit their needs.