

ICCN Poster Presentations

Food and the child

Iron deficiency anaemia as an adjunct to soil-transmitted helminthiasis among Orang Asli children in Selangor, Malaysia

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Objective: The aim of this study is to determine iron status in children living in endemic areas of soil-transmitted helminthes.

Methods: A cross sectional study was conducted on 281 Orang Asli children aged between 2 and 15 years from eight Orang Asli villages in Selangor, Malaysia. Faecal samples were collected and examined for *Ascaris lumbricoides*, *Trichuris trichiura* and hookworm using Kato-Katz technique. Blood samples were also collected for estimation of haemoglobin, serum ferritin, serum iron and total iron binding capacity (TIBC) and analyzed using standard techniques.

Results: All children were infected either by *A. lumbricoides*, *T. trichiura* or hookworm and almost 19%, 26% and 3.0% of the children had severe infection of ascariasis, trichuriasis and hookworm infection respectively. The mean hemoglobin, serum iron and serum ferritin concentrations were in the lower limits of normal with values of 11.5 ± 1.9 g/dL, 10.9 ± 5.43 μ mol/L and 21.36 ± 16.9 μ g/L respectively. Correspondingly, mean TIBC was in the upper range of normal, 69.45 ± 11.37 μ mol/L. The percentage of children with low haemoglobin, serum iron and serum ferritin concentrations were 41.5%, 55.0% and 28.4% respectively and high TIBC was found in 51.1% of the children. Further analysis showed that mean haemoglobin and serum iron concentrations were low in the infected compared to the non-infected children and the difference was not significant. The mean serum ferritin and TIBC in the infected children and the non-infected children showed inconsistent results.

Conclusion: Soil-transmitted helminthiasis is a possible contributory factor to iron deficiency anaemia in these children.

Correlates of children's eating attitude test scores (CHEAT) among a sample of female primary school children

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The findings were part of a pilot study on maternal influences on weight and eating behaviors of 8-9 years old primary school children. Specifically, the findings will focus on the children's conceptualization of dieting and the factors that correlate with the scores of children's version of the Eating Attitude test (ChEAT). A total of 107 primary school girls (8-9 years old) completed the measurements on eating behavior (ChEAT, food neophobia scales and dieting experience), self-esteem, body image, dietary intake, weight and height. The most frequent response associated with dieting was 'skip meals' (78%), followed by 'eat very little' (55%) and 'do not eat or reduce fried foods' (49%). Exposure to weight loss advertisements in the media (75%) and observation of dieting among mothers (60%) were the main sources of information on dieting for the girls. Our findings indicate that the majority of the girls (92%) were able to define the concept of dieting, mostly in relation to food consumption. Thirty eight percent (38%) of the girls scored 20 and more on the ChEAT and 46% of them reported dieting with reducing sugar and sweets (73%), skipping meals (67%), reducing fat foods (60%) and snacks (53%) as most frequent methods practiced. In general, girls with higher ChEAT scores (restrictive eating behaviors) had lower self esteem, were more unwilling to try new foods (food neophobic), chose smaller figure for desired body size and were more dissatisfied with their body size. Although the small sample size may limit the generalization of the findings from this study, the obtained information can be a start to future research on body image and eating disorders among children in Malaysia as at present published information in this area is very limited.