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The relative contribution of physical activity and eating habits to the prevalence of obesity among Kuwaiti adolescents

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Introduction: To examine the relative contribution of physical activity and eating habits to the prevalence of obesity among Kuwaiti youth.

Methods: A total of 911 (465 boys and 446 girls) healthy adolescents (mean (SD) age = 16.2 (1.1) years), were selected from schools by a multistage stratified randomization. A validated questionnaire was used to collect data on physical activity, sedentary lifestyle, and eating habits. The IOTF cut-off values were used to define overweight and obesity for those below 18 years. Total energy expenditure was calculated using metabolic equivalent-minutes per week. A General Linear Model was used to establish the proportion of the variance in excess weight attributable to differences in eating habits and physical activity.

Results: The prevalence of obesity was 25.6% in boys and 21.3% in girls. There were negative associations between body mass index (BMI) and weekly frequency of breakfast (in boys and girls) and positive association with fast foods and energy drinks (in boys) and cakes/donuts (in girls) ($P < 0.05$). Other food habits were not associated with BMI. There was a strong negative association between BMI and physical activity in boys ($P < 0.001$), but not in girls. Watching TV and sleep duration were not associated with BMI. The proportions of variance in BMI attributed to differences in eating habits were 1.5 and 2.2% compared to 2.8 and 0.4% explained by physical activity in boys and girls, respectively.

Conclusion: The prevalence of obesity was more associated with physical inactivity in boys and with poor eating habits in girls.

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