

Relative contribution of physical activity, sedentary behaviors, and dietary habits to the prevalence of obesity among Kuwaiti adolescents.

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Source

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Abstract

BACKGROUND:

The increasing rate of obesity among Kuwaiti adolescents is associated with immediate and long term-risks to their health and well-being.

OBJECTIVE:

To update data on the prevalence of overweight and obesity among Kuwaiti adolescents and to examine the relative contribution of selected lifestyle factors to overweight and obesity in this population.

METHODS:

The present study is part of the Arab Teens Lifestyle Study (ATLS). A total of 906 adolescents (463 boys and 443 girls) aged between 14 and 19 years were selected from Kuwaiti schools by a multistage stratified randomization process. A validated questionnaire was used to collect data on physical activity, sedentary lifestyle, and eating habits. The International Obesity Task Force (IOTF) cutoff values for adolescents under 18 years of age were used to define overweight and obesity. Total energy expenditure was calculated using metabolic equivalent-minutes per week. A general linear model was used to establish the proportion of the variance (expressed in partial eta squared) in excess weight attributable to differences in eating habits and physical activity.

RESULTS:

The prevalence of overweight and obesity was 50.5% in boys and 46.5% in girls. Among boys, moderate and vigorous activities were found to be significantly negatively associated with overweight and obesity ($p < .05$), whereas in girls, only those with not less than moderate activities were negatively associated with overweight and obesity ($p < .05$). Sedentary behaviors, time spent watching television, and time spent working on the computer were not significantly associated with obesity in either sex. Consumption of breakfast, vegetables, and fast foods (boys and girls) and potatoes, cakes and doughnuts, and sweets (girls only) was significantly associated with overweight and obesity ($p < .05$). In general, the partial eta square explained by physical activity was less than 3.6% in boys compared with less than 1.0% in girls, and eating habits explained less than 1.8% in boys compared with 2.5% in girls.

CONCLUSIONS:

Physical activity explains a greater proportion of variation in body mass index than do eating habits, particularly in boys. Eating habits explain a greater proportion of variation in body mass index than does physical activity in girls.

Prospective studies are needed to clarify the relative effects of sedentary behaviors on overweight in adolescents.

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