

Predictive Factors of Obesity and their Relationships to Dietary Intake in Schoolchildren in Western Algeria

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Abstract :

Background: Obesity has reached epidemic proportions world-wide. Its risk factors are poorly studied, especially among children in developing countries such as Algeria.

Objectives: The purpose of this study was therefore to determine the prevalence and risk factors of obesity in Algerian schoolchildren 6 to 8 years aged by conducting a school-site retrospective cohort study in Tlemcen Department (western Algeria).

Material and Methods: From 2008 to 2010, socio-demographic characteristics, body mass index (BMI), physical activity categories, lifestyle and nutritional habits of 1520 children (839 boys and 681 girls), at entrance into primary school, were recorded using a self-administered questionnaire.

Results: Among the 1520 participants, 99 (6.5%) were obese. Birthweight ≤ 2.5 kg and ≥ 4 kg, early introduction of solid foods and low physical activity were significantly associated with obesity ($p < 0.001$). Additionally, mother's and grandmother's BMI ≥ 30 kg/m², fewer children in the household, higher parental education, household income and the presence of familial obesity may predispose significantly to childhood obesity ($p < 0.001$). Furthermore, child's BMI was significant positively correlated with total energy, fat and saturated fatty acid (SFA) intakes ($p < 0.01$). Mother's and grandmother's BMI were significant positively correlated with child total energy, fat and SFA intakes. Physical activity score was significant

negatively correlated with child total energy, fat and SFA ($p < 0.01$) intakes in obese children.

Conclusions: Mother's and grandmother's obesity, excess energy and fat intakes and low physical activity are the strong predictors of childhood obesity in Algeria. Preventive measures should focus on the promotion of physical activity and maternal and children nutritional education.

Keywords : childhood obesity, etiology, nutrition, prevalence.

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