Dietary patterns as a predictive factor for overweight and obesity among secondary school children in Mashhad, Iran

ABSTRACT

This cross-sectional study was carried out to determine the prevalence of overweight and obesity among secondary school children in the city of Mashhad, Iran and its association with dietary patterns. A total of 1189 secondary school children (579 males and 610 females) aged 12- 14 years old were selected through a stratified multistage random sampling. All adolescents were measured for weight and height. Household socio-demographic information were self-reported by parents. Adolescents were classified as overweight or obese based on BMI-for age Z-score. Dietary patterns were assessed using a validated Iranian food frequency questionnaire (FFQ) included 121 food items. The principal component factor analysis (PCA) was applied to derive dietary patterns, and Logistic Regression (LR) was applied to examine the association between dietary pattern and adolescents BMI. The overall prevalence of overweight and obesity among the study population was 17.2% and 11.9%, respectively. The PCA analysis revealed the presence of two dietary patterns that were labeled as 'Healthy dietary pattern' (HP), and 'Unhealthy dietary pattern' (UP). LR analysis showed that HP was significantly associated with BMI (OR: 1.28, 95% CI: 1.124-1.47). Similarly, UP was significantly associated with BMI (OR: 0.861, 95% CI: .725-.968). In Iran, nutritional transition has taken place in the context of urbanization and has changed lifestyle, and dietary patterns. Policies must be formulated and circulated in the society to reach every family in the form of healthy dietary pattern.

Keyword: Dietary pattern; Overweight; Obesity; Children; Mashhad