## Major Dietary Patterns in Relationship with Anthropometric Indices in North West of Iran

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Abstract : Dietary pattern analysis method can reflect more information about the nutritional etiology of chronic diseases such as obesity. The aim of this study was to determine the relationship between major dietary patterns and anthropometric measures in men and women living in the city of Urmia. In this cross-sectional study, 723 participants (427 women and 296 men), aged 20-64 in Urmia city were selected from all four zones of Urmia city, in the north-west of Iran. Anthropometrics (weight, height, waist and hip circumference) were measured with standard methods. Body Mass Index (BMI) was calculated by dividing weight (in kilograms) by the square of height (in meter). Dietary intake information was collected by a semiquantitative food frequency questionnaire in the last year. Dietary patterns were determined using principal component analysis. The relationship between dietary patterns and obesity was analyzed by logistic regression. Three major dietary patterns (DPs) were identified that were named 'Traditional Higher SES (THS)', 'Traditional Low SES (TLS)' and 'Transitional'. THS DP was positively and Transitional DP was negatively associated with BMI and waist circumference (W.C), however, after adjusting for confounding variables (age, gender, ethnicity, energy intake, physical activity and SES), the associations were not significant. The TLS was not significantly associated with BMI, but after adjusting for confounders, a significant positive association was detected with W.C and Waist to hip ratio (WHR). Findings showed that both traditional patterns were positively and the western type transitional pattern was reversely associated with anthropometric indices. But this relationship was highly affected by demographic, socioeconomic and energy input and output determinants. The results indicate the inevitable effect of environmental factors on the relationship between dietary patterns and anthropometric indices.

Keywords : anthropometric indices, dietary pattern, Iran, North-west

**Conference Title :** ICNTNP 2018 : International Conference on Nutrition Transitions and Nutritional Patterns **Conference Location :** Amsterdam, Netherlands

Conference Dates : August 06-07, 2018