Association of major dietary patterns with obesity risk among Mongolian men and women.

ABSTRACT

Mongolia is experiencing changes in its unique nomadic lifestyle and dietary habits in the last two decades with accompanying increase in obesity rate. The dietary pattern approach, which investigates the overall diet in relation to obesity risks, has become appealing in nutrition epidemiology. The aim of this study was to identify major dietary patterns of the Mongolian adults in relation to the risk of having obesity. Dietary intake of a total 418 adults aged $\geq$ 25 years was assessed by using a food frequency questionnaire with 68 items. An exploratory factor analysis resulted in three dietary patterns: transitional high in processed meat and potato, traditional rich in whole milk, fats and oils and healthy with greater intake of whole grains, mixed vegetables and fruits. Individuals in the upper quintile of the transitional pattern had significantly greater risk of obesity (BMI$\geq$25kg/m2: OR=2.47; 95% CI=1.04-5.86) while subjects in the highest quintile of the healthy dietary pattern were found to have significantly decreased risk of obesity (OR: 0.49; 95% CI=0.25-0.95). Men in the highest quintile of the transitional pattern had greater risk of abdominal obesity WC$\geq$90cm: OR= 4.08; 95% CI=1.11-14.97) than those in the lowest quintile. Women in the top quintile of the traditional pattern had a greater odds of having abdominal obesity (WC$\geq$80cm: OR=4.59; 95% CI=1.58-13.30) than those in the lowest quintile. The study suggests that public health efforts be targeted at adults in Mongolia to address the undesirable aspects of the transitional and the traditional dietary patterns.