A 'High Risk' lifestyle pattern is associated with metabolic syndrome among Qatari women

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Background

Recently, in nutritional epidemiology, the synergy between lifestyle factors such as diet, physical activity and smoking has been increasingly recognized, particularly in association with diseases of multifactorial etiologies such as the Metabolic Syndrome (MetS). This study investigated the effect of lifestyle patterns, as a combination of diet, physical activity and smoking, on Metabolic Syndrome (MetS) among Qatari women of childbearing age (n = 418), a population group particularly vulnerable to the health sequela of this syndrome.

Methods

Using data from the National WHO STEPwise survey conducted in Qatar in 2012, Principal Component Factor Analysis was performed to derive lifestyle patterns with survey variables related to the frequency of consumption of 13 foods/food groups, physical activity levels, and smoking status in order. MetS was diagnosed using ATPIII criteria.

Results

Three lifestyle patterns were identified: 'High Risk' pattern, characterized by intakes of fast foods, sweets and sugar sweetened beverages, in addition to lower levels of physical activity and higher smoking prevalence; 'Prudent' pattern, driven mainly by higher intakes of fruits, vegetables, fish, and whole grains; and 'Traditional' pattern which included beans, meat, dairy products, and a low prevalence of smoking. Among these three lifestyle patterns, only the 'High Risk' pattern was associated with higher odds of MetS, whereby subjects belonging to the third tertile of this pattern's scores had 2.47 times the odds of MetS (95% CI: 1.04-5.39) compared to those in the first tertile.

Conclusions

These findings support the combined effect of lifestyle behaviors in relation to diseases with complex and multi-factorial etiologies such as the MetS. It also provided evidence for health authorities in Qatar to target 'holistic' lifestyle patterns modifications in the development of culturally sensitive interventions targeted at disease prevention among women of childbearing age

Key messages:

- High Risk lifestyle pattern, consisting of 'unhealthy' diet, low physical activity and smoking, increases the odds of metabolic syndrome among women of childbearing age in Qatar
- The findings of this study demonstrated the synergy among high risk behaviors in increasing the odds of MetS among Qatari women; the latter being a major risk factor for cardiovascular diseases

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