Prevalence of the metabolic syndrome and its component factors among female students at United Arab Emirates University

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Introduction & Aim: Scientific evidence has confirmed the continuous increase in the prevalence of the metabolic syndrome in the young population. This study investigates the prevalence of metabolic syndrome (MetS) and its components among young female adults (17-25 years old) in the United Arab Emirates University.

Design: Cross-sectional study of 555 Emirati female college students during the academic year 2013/2014 at United Arab Emirates University (UAEU) in Al-Ain, United Arab Emirates.

Methods: Anthropometric measurements, including height, weight, body mass index (BMI) and waist circumference (WC) were measured. Biochemical measures including total cholesterol (TC), triglyceride (TG), low density lipoprotein-cholesterol (LDL-C), high density lipoprotein-cholesterol (HDL-C) and fasting blood glucose (FBG) concentrations were determined from fasting venous blood samples. Clinical and dietary data were also collected.

Results: The total prevalence of metabolic syndrome using the harmonized IDF/AHA/NHLBI criteria was 6.8%. One MetS component was found in 38.4% of participants and two MetS components were found in 11% of participants. The most frequent component of MetS was reduced HDL-C levels, followed by central obesity, carbohydrate metabolism disorder, hypertension and hypertriglyceridemia. The prevalence increased from 4.1% among participants aged 17 through 19 years to 11.3% for participants aged 23 through 25 years (P=0.044).

Conclusion: The prevalence of MetS among Emirati female students is highly prevalent. Its occurrence was directly proportional to the increase in body mass index (BMI). This highlights the importance of regular screening and urgent intervention programs for college students, targeting weight reduction and an increase in physical activity.

Biography
Maysm Nezar Mohamad has completed her Bachelor’s degree in Dietetics from the Nutrition and Health Department, United Arab Emirates University (UAEU). She is currently pursuing PhD in Nutritional Sciences. She is a well-presented, self-motivated, well-educated Dietitian and also an ILSI Middle East’s Scientific Program Manager. She has experience in reviewing nutrition journals, preparing dietary recommendations and counseling clients. She is currently involved in research studies in areas related to obesity, anthropometry, diabetes and metabolic syndrome.

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