



The College of Graduate Studies and the College of Medicine and Health Sciences Cordially Invite You to a

PhD Dissertation Defense

Entitled

THE EPIDEMIOLOGY AND BURDEN OF CARDIOMETABOLIC RISK FACTORS IN A YOUNG EMIRATI POPULATION

by

Fatima Mezhal

Faculty Advisor

Dr. Luai A. Ahmed, Institute of Public Health
College of Medicine and Health Sciences

Date & Venue

15:00

Sunday, 19 April 2020

CMHS

Abstract

The United Arab Emirates (UAE) has experienced a rapid economic growth that was paralleled with a drastic rise in non-communicable diseases (NCDs); primarily cardiovascular diseases (CVDs), which account for 40% of mortality in UAE. CVDs have complex etiology, interplay and accumulation of many risk factors. Understanding the clustering and interrelationships between common risk factors like obesity, dysglycemia, dyslipidemia, hypertension and central obesity, and the associations with other social and lifestyle determinants, is warranted. The study aimed to estimate the burden of cardiometabolic risk factors (CRFs), their interrelationship, and their associations with other social and lifestyle determinants in a young Emirati population. Data was drawn from the UAE Healthy Future Study collected between 2016 and 2018. The information was collected through questionnaires, physical measurements and blood samples. Age-adjusted and gender-specific prevalence of CRFs were estimated, and appropriate regression models were used to determine the interrelationships and associations of the CRFs. A total of 5,126 eligible participants aged 18-40 were included in the analysis. The age-adjusted prevalence rates were 26.5% for obesity, 11.7% for dysglycemia, 62.7% for dyslipidemia, 22.4% for hypertension and 22.5% for central obesity. Dyslipidemia had the highest comorbidity rate, up to 80%, with other CRFs, followed by obesity. Obesity had the strongest interrelationship with other CRFs. Education, employment, smoking and family history of NCDs had significant associations with some CRFs. Forty percent of the population had ≥ 2 CRFs, and the accumulation was higher in men than women; 47.8% vs 28.1%, respectively. The burden of CRFs was affected by age and social factors, and was significantly different across BMI classes. CRFs and their clustering are highly prevalent in young adults, including those of normal BMI. This should be taken into account in the design and targeting of group-specific measures for CVDs and other NCDs prevention. Further research is needed to investigate how the clustering manifests in young adults to prevent the early rise of NCDs in the UAE.

Keywords: Non-communicable disease, Cardiovascular disease, Cardiometabolic risk factors, Obesity,

Dysglycemia, Dyslipidemia, Hypertension, Central obesity.